



FIGHTING GAME FUNDAMENTALS

WRITTEN BY
G O O T E C K S

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**BY
GOOTECKS**

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ABOUT ME & FREE BONUS

This ebook includes a FREE bonus Training Mode Handbook! This Handbook contains a slew of Training Mode exercises that you can use to improve the way you practice. It includes how to use all the different features of Street Fighter 5's Training Mode, which is critical to improving as a player. It's so extensive, in fact, that I'm also selling it separately, but since you bought this one, you get it for free. All you have to do is [CLICK HERE](#) to get it.

Before diving in any further, you're probably wondering who I am, what I do, and what makes me qualified to write about fighting game fundamentals.

Well, for one thing, I wrote a previous book called *Simplifying Street Fighter* to help players get into Street Fighter 4. Before that, my experience with Street Fighter is steeped in history, going way back to the days of inserting coins into arcades.

I started with Street Fighter II: World Warrior as a kid in 1991. Like most people who played back then, the arcade was a second home for me. It was this early competition that drove me to learn as much as I could about the game.

As I got older, I continued playing each iteration of Street Fighter with enthusiasm: from Hyper Fighting to X-Men vs. Street Fighter, to the Alpha series to the Street Fighter 3 series, to Street Fighter 4.

Throughout the years, I constantly searched for whatever information I could find in order to improve. In the 90s, it was GamePro magazines and text FAQs, which then evolved into the Shoryuken forums and then YouTube.

Since I'd been playing since I was a kid, I always wanted to be one of the guys that could win consistently. I started competing in Street Fighter III: 3rd Strike tournaments in 2003 and honed my skills at the mecca of North American 3rd Strike, Family Fun Arcade (or FFA)--may it rest in peace.

At the peak of my 3rd Strike career, I had the opportunity to join Justin Wong's 2008 Super Battle Opera team and compete for a chance to represent America in Japan. During my time in Japan, Street Fighter 4 was brand new in the arcades and although I didn't play it very much, when I returned to California, Street Fighter 4 was now available at one location in Southern California.

This was essentially the nail in the coffin of 3rd Strike and I transitioned (rather painfully) to SF4. I competed fiercely for a few years, and then--due to a lack of motivation, low prize money, and other factors--began to focus more on content creation, namely YouTube videos with my partner-in-crime, Mike Ross.

Cross Counter originally started as a YouTube show on Machinima, a first-person shooter-centric YouTube network, and then evolved into its own channel featuring different shows like Cross Counter LIVE, Excellent Adventures, Runnin' Sets, and Cross Counter Asia.

I found it harder to keep up with top players and became disillusioned with playing Street Fighter 4. Of course, it was always fun on the show (and our episodes reflect that), but competing just didn't have the same appeal anymore.

But that all changed one morning when I woke up to the news that Street Fighter 5 was being made. The trailer, featuring the tagline "Rise Up," really spoke to me. What can I say? I'm a Street Fighter fanboy at heart.

I began to get back into playing Street Fighter 4 and tried to see the game differently from when I did

during my competitive streak in the past. This change in viewpoint helped me grow as a player because I made an effort to fill the holes in my game, such as lack of character knowledge and not knowing how to practice efficiently or how to read and utilize frame data.

Once Street Fighter 5 debuted at E3 2015 and I played, I was hooked. All it took was that first game to know that this was what I was supposed to do. At E3, I competed in a tournament with a PlayStation 4 as the 1st Place prize. Spoiler alert: I won and took it as a sign that I should invest as much as possible into becoming good at the new game.

Over the next several months, I went to practically every Street Fighter 5 event on the west coast. As Capcom announced and released new characters, I made an effort to learn as much as possible about each of them. When the online betas came around, I played those as much as possible as well.

Slowly, I began to understand the nature of the game and how it differs from SF4. Of course, it took me quite some time to get the hang of the game. Maybe I'm a slow learner, maybe the game has a relatively steep learning curve in some aspects, or maybe it's a little bit of both. In either case, I've learned a lot about the game in the last six months.

Now I don't claim to know everything there is about the game, but my goal with this book is to save you time, frustration, and effort with the knowledge I've gained.

In any case, I hope that this book will serve as a solid reference for both new and experienced players alike when it comes to learning fighting games. Although games vary by systems, characters, moves, and more, many core aspects fighting games remain unchanged.

Now's your opportunity to get a jump on your opponents and start building your path to long-term success.

Within you'll find a number of detailed strategies and observations that I have painstakingly developed over the past eight months--2015 to early 2016--from my experiences with the Street Fighter 5 beta at various events and during the online betas. As well as, of course, my experience competing in 3rd Strike and SF4 tournaments.

While this guide has been written primarily using Street Fighter 5 as a tool for understanding and practicing fighting games, I believe a lot of this applies to many other fighting games as well.

It helps if you've read my previous book, [*Simplifying Street Fighter*](#), but if you didn't, that's okay too; some of the information in *Simplifying Street Fighter* has been included here and updated.

Thanks for reading, now let's get started!

-gootecks ([Instagram](#) | [Twitter](#))

A NOTE ABOUT NOTATION

The fighting game notation that I will use throughout the book can be confusing, but don't worry, you'll get the hang of it soon enough!

Abbreviations

We use abbreviations frequently in fighting games because using the colloquial names can be confusing for new players. In the 90s, when you looked at Street Fighter arcade cabinets, the buttons were named as follows:

Punches: jab (light), strong (medium), fierce (heavy)

Kicks: short (light), forward (medium), roundhouse (heavy)

These names are still used by many experienced players because they are simply faster to say than “light punch” or “medium kick.” For the sake of clarity, we’ll only refer to the buttons using the abbreviations, or official long names.

LP - Light Punch

MP - Medium Punch

HP - Heavy Punch

LK - Light Kick

MK - Medium Kick

HK - Heavy Kick

Also, we use the following abbreviations to describe which position you must be in when performing a move.

st. - Standing

cr. - Crouching

j. - Jumping

From hereon, we’ll abbreviate Ultra Street Fighter 4, Street Fighter 4, and Street Fighter 5 as USF4, SF4, and SF5, respectively.

Commas and “XX”

We use commas and the “XX” notation to denote when moves are part of a combo or sequence.

A comma means that one move links into another. A link is a type of combo in which one move finishes completely, then the next move connects and continues the combo while the opponent is still in hitstun and cannot block.

An example of a link is Ryu’s st. MP, cr. MP combo. The st. MP animation finishes completely, putting the opponent in hitstun; after which, the second cr. MP animation makes contact when the opponent is still in hitstun, and thus, makes them unable to block.

When you see “XX” used to describe a combo or sequence, it means that the first move’s animation is cancelled by the next move. This is possible because some attacks’ animation can be cancelled into another attack if timed properly. In other words, this allows for some moves to combo that otherwise wouldn’t if the first attack was not cancellable.

An example of a cancel is Ryu’s cr. MP xx Hadoken. The crouching Medium Punch contains a small “number of frames” that are cancellable into a special attack. When you quickly perform the input for his Hadoken (D, DF, F+P) *immediately* after inputting cr. MP, Ryu will unleash his Hadoken, of course--but if the opponent doesn’t block the cr. MP, the Hadoken will also combo. The game will then display “2-hit combo” on the screen if you did it correctly. If, however, the opponent does block the cr. MP, the Hadoken will still come out because the cr. MP will have made contact.

On the other hand, attacks that “whiff”, or don’t make contact with the opponent, generally cannot be cancelled. The exception to this is light normals which can be chained together and cancelled, even if they don’t make contact.

THE IMPORTANCE OF HARDWARE CONSISTENCY

Before we can get into the nitty gritty of SF5's game engine, let's first make sure that we're all on the same page regarding hardware.

When someone is having a hard time getting better, they almost always overlook their hardware setup, which I believe to have a great impact on your ability to be a great player. Now I'm not merely talking about which stick or pad you play on. Rather I'm referring to the other pieces of your hardware: your internet, PC or console, and type of monitor.

We'll dive into these shortly, but to understand the importance of these things, you need to first understand something called a "1-frame link".

Fighting games oftentimes requires very tight timing and consistency in your execution, or ability to carry out a character's command at will.

SF5 runs at 60 frames per second. That means that if you have one frame to hit a button or perform a command, you have literally 1/60th of a second to do so. I don't know about you, but that sounds like a tough window to hit to me. Further, you'll find these 1-frame links to be very common in combos and setups. So, with such a tiny window of success, you'd want to minimize your chances of error by having the right hardware for the job.

If you've played SF4 before, note that there have been some changes in SF5 (for the better). SF5 has a 3-frame input buffer, which means that there is a 3-frame window of leniency wherein the engine will still count the input as though you hit it on time. In other words, your timing doesn't need to be accurate to 1/60th of a second--only 1/20th. Sounds like a minor difference, but the right hardware makes this important.

Players who play under suboptimal conditions such as with a laggy TV, laggy internet, and laggy console will likely develop tactics and strategies that appear to work well (because of their self-imposed handicaps) against weaker players, but will find the same strategies to flop when they play against stronger players.

PlayStation 4 vs. PC

Let's first start with the platform you play on.

SF5 is available on both PlayStation 4 (PS4) and PC. Generally, the PS4 version is going to be "the standard" because the [Capcom Pro Tour](#) is going to be played exclusively on PS4 consoles.

Don't worry, you can still play against PC players thanks to a feature called cross-play. It allows PC players to fight PS4 players, and vice versa.

Because of SF5's input leniency, I don't anticipate there to be a huge difference in playing on one platform versus on another. If you don't already have a PS4, I usually recommend most players to compare the costs of a decent PC to the costs of buying a PS4 and other hardware.

Here's a quick breakdown:

[PS4](#) - \$349.99

[Mad Catz PS4 Fightstick](#) - \$199.99

[BenQ 24" Monitor \(Evo standard\)](#) - \$251.84

Total: \$801.82 not including tax and shipping.

That can be a lot of dough. It all depends on whether or not you plan to play other non-SF5 games on your PS4 (most games are on PC as well). If not, it might be more cost-effective to just keep your existing fightstick and invest in a PC.

How much more cost-effective, you ask? I asked fighting game writer and enthusiast Michael Martin to chime in with some recommendations.

A Guide to Building Your Street Fighter V PC by Michael Martin

Many people choose console gaming over PC because it can be a more simple option, and you can build one. On the other hand, you don't have to build a PS4. It's a one-time purchase, and other than minor optional upgrades, a PS4 owner can rest easy knowing they are getting something playable out of the box. When it needs an update, it will automatically download it for you.

Now if you want to play SF5 on a PC, you need to determine if your PC can run it or run it capably. If it doesn't meet the minimum requirements, the next question is: do you upgrade or buy or build a brand new PC?

Taking into account your budget, let's take a look at your options based on the hardware requirements to run the game and their cost. First, here are the minimum system requirements to play SF5 on PC, according to Capcom.

OS: Windows 7 64-bit
CPU: Intel Core i3-4160 @ 3.6 GHz
RAM: 6 GB
Video: Nvidia GTX 480 or higher
Sound: DirectX-compatible sound card or onboard chipset
DirectX: Version 11
Internet: Broadband connection required

These requirements aren't terribly taxing, and if you've bought or built a computer within the last few years, odds are you have something similar and can run SF5.

Here's what is recommended:

OS: Windows 7 64-bit
CPU: Intel Core i5-4690K @3.50GHz
RAM: 8 GB
Video: Nvidia GTX 960
Sound: DirectX-compatible sound card or onboard chipset
DirectX: Version 11
Internet: Broadband connection required

For the most part, the gap between minimum and recommended isn't great aside from the recommended video card. You'll find that getting into the Nvidia GTX 960+ series can get quite spendy. That said, if you find yourself in a situation where you can upgrade parts, RAM and video card would be your best "bang for your buck."

Now maybe you just want a new PC or get away from console gaming. In that case, we put together a couple of sample PC builds as reference to getting the most out of SF5 and your wallet.

PC Build 1

This budget PC will get you by just fine with most current games. You might not be able to play everything at maximum settings, but it's more than enough, based on the minimum system requirements, to handle SF5. One thing to note about this build: You could go with a lower-end video card, but depending on what you find at current prices, lower-end video cards could run anywhere from \$20 to \$50 less. Having a higher-end card saves you the trouble of upgrading later should you want to upgrade other parts around it.

Before the cost of the monitor and a controller or fightstick, you'll be looking at about \$645 USD. Referring back to the gaming display section, you can go with the Evo standard BenQ 24" gaming monitor or something that's more suitable to your needs. A build like this has everything you need to get started and

affords you the freedom to pick and choose parts you want to upgrade later on, while keeping the system viable for a few years at least.

[Intel Core i3-6100 3.7GHz Dual-Core Processor](#) - \$128.69
[Gigabyte GA-H110M-A Micro ATX LGA1151 Motherboard](#) - \$45.99
[Kingston HyperX Fury Black 8GB \(2 x 4GB\) DDR4-2133 Memory](#) - \$53.99
[Seagate Barracuda 1TB 3.5" 7200RPM Internal Hard Drive](#) - \$48.62
[EVGA GeForce GTX 950 2GB FTW ACX 2.0 Video Card](#) - \$159.99
[Thermaltake Versa H21 ATX Mid Tower Case](#) - \$45.28
[SeaSonic S12II 520W 80+ Bronze Certified ATX Power Supply](#) - \$65.99
[Cooler Master Storm Devastator Gaming Bundle](#) - \$29.99
[Microsoft Windows 10 Home OEM \(64-bit\)](#) - \$95.82
[BenQ RL2460HT 60Hz 24" Monitor](#) - \$245.68

PC Build 2

If you're looking at building a high-end gaming rig that you won't need to think about upgrading for a long time, we've put together this sample build that features virtually everything you need to play SF5 and anything else at the highest settings.

The high-end build comes with all of the bells and whistles, including mechanical keyboard and a great headset to get you used to blocking out sound while playing in tournaments. You might also notice the significant leap in price with the video card. While lower-end cards tend to be relatively close in price, the higher-end models cost much more. Another difference between this build and the budget build is the 500GB Solid State Drive. It's faster than the 1TB 7200 RPM hard drive and will provide better load times for programs installed on it, while the secondary hard drive can be used for storage.

[Intel Core i5-6600K 3.5GHz Quad-Core Processor](#) - \$264.21
[Cooler Master Hyper 212 EVO 82.9 CFM Sleeve Bearing CPU Cooler](#) - \$29.44
[MSI Z170 Krait Gaming ATX LGA1151 Motherboard](#) - \$134.99
[Crucial Ballistix Sport 16GB \(2 x 8GB\) DDR4-2400 Memory](#) - \$98.48
[Crucial BX100 500GB 2.5" Solid State Drive](#) - \$179.99
[Seagate Barracuda 1TB 3.5" 7200RPM Internal Hard Drive](#) - \$48.62
[MSI GeForce GTX 980 Ti 6GB Video Card](#) - \$650.90
[Phanteks Enthoo Pro ATX Full Tower Case](#) - \$109.99
[EVGA SuperNOVA G2 550W 80+ Gold Certified Fully-Modular ATX Power Supply](#) - \$89.99
[Razer BlackWidow Chroma Wired Gaming Keyboard](#) - \$159.99
[Razer Mamba Tournament Edition Mouse](#) - \$78.99
[Kingston HyperX Cloud II 7.1 Channel Headset](#) - \$97.97
[Microsoft Windows 10 Home OEM \(64-bit\)](#) \$95.82
[BenQ RL2460HT 60Hz 24" Monitor](#) - \$245.68

If neither of these appeal to you, there are plenty of PC manufacturers that offer a pre-built gaming PC or laptop, but those will always be more expensive. If you want to get the most out of your money, you want to ideally pick and choose your own PC parts.

If you're looking to go beyond playing SF5 and get into content creation or live streaming, the budget build may suffice. But you'll find that in order to produce higher quality streams and content, a more powerful PC is needed.

Maybe you don't need to go through the process of buying or building a new computer. You can certainly upgrade your desktop to something capable of meeting the minimum requirements. It might take a bit of research, but you can always use the reference PC builds as a guideline. Need a new video card? Pick up one of those Nvidia 950s. RAM is always an affordable and simple option to upgrade.

As always, there are different opinions on hardware. Some PC users prefer AMD processors and graphics

cards over Intel and Nvidia. With a little bit of research, you can find whatever suits you best.

Again, thanks to [Michael Martin](#) for doing the legwork and providing you with information on building a PC. Now that you have some guidance on PC vs. PS4, let's talk monitors and TVs.

Big TVs vs. Gaming Monitors

Now I hate to be the bearer of bad news, but that nice HDTV that cost you a shiny penny probably is not going to help you win more games. Usually, big TVs that are great for watching TV and movies are not optimal for playing fighting games due to game's aforementioned tight execution windows. Check if your TV is listed on a site like [Display Lag](#) to see how it stacks up against gaming monitors that are actually optimized for performance instead of just being...big.

Okay, I admit that I'm not a "monitor scientist", so I don't know *why* big TVs have a slower response time; I just know they do. I also know that if you consistently play on a laggy TV, play over wi-fi, *and* are new to the game, it's going to skew the way you view and think of the game.

The main drawback is that if you spend a lot of time working on your combos and execution on a laggy TV, *and* then either upgrade to a gaming monitor or start competing offline, you're going to have to relearn and adjust your timing. Talk about a waste of time and energy, right?

The best thing to do is to invest in a monitor that has as little lag as possible. If you really want the advantage, make sure it's the same monitor that's going to be used at your local and major tournaments.

For a long time, the previous standard was the Asus VH series until Evo 2015, when the new standard became the BenQ [RL2460HT](#). I have one and like it a lot, but recently bought a [27" Asus MX279H](#) which is GODLIKE--especially when combined with a [Light Pack](#) for some sweet backlighting.

As a new player, it may not be worth running out to buy a new monitor immediately, but once you start playing online consistently, it probably won't take long before some of those losses feel like they could have been wins if you'd been playing on a better monitor or TV.

So depending on your budget situation, it may make sense to just bite the bullet as early as possible in your Street Fighter journey.

Wi-Fi vs. Ethernet

As you probably already know, you experience a certain amount of lag while playing online. If you live outside of Asia, chances are this lag is somewhere from slightly noticeable, to hard to ignore, to unplayable. At the current state of online play, this is simply unavoidable and unlikely to change in the near future. This means that the best thing we can do is to reduce lag as much as possible.

The main things we can control are our own internet connections and home network setup. If you live in an area like I do with only one provider, the best thing to do is upgrade to the highest speeds. If you've already done that, the next step is to make sure that you're using an ethernet cable to connect instead of using wi-fi.

Why not wi-fi?

Wi-fi is not optimal to play on because of the latency and the sheer amounts of signals and noise that are likely crowding the spectrum at your place. Maybe you're some sort of IT guru who has optimized your wireless for super performance, found a way to reduce extra latency to 0, are using a different wi-fi channel, and experience no hiccups at all. That's great for you, but the rest of us are not going to be able to replicate the same results. So, stick with ethernet, the stronger and simpler choice, to reduce the number of variables that can impact the connection.

Yeah, ethernet can be a pain in the ass, but sometimes all you need is a long-ass cable. Plus, there are other ways of getting it done, such as via ethernet over power. I recently invested in an [Actiontec Powerline Ethernet adapter](#) and wish I had upgraded sooner. I used to run a 100' ethernet cable from the router in my living room to my office with a second router near my consoles and PC. This was obviously not an elegant solution, but now the Powerline Ethernet adapter works perfectly, and I plug my PC and

console into the wall which connects to the router in the living room.

As a side note, you can expect a *huge* number of PS4 players to play on wi-fi probably because they're new to fighting games (and not reading this book). This will inevitably cause an overall poor experience. Please be part of the solution, not the problem.

Fightsticks vs. Controllers

Many new players see pro players using fightsticks at tournaments and think that they, too, must use a fightstick if they want to be strong players. This is not true. A fightstick doesn't automatically make you great, although there are some advantages to using one:

- Easy access to all buttons.
- Advanced execution methods like double-tapping are easier.
- The ability to perform long motions like Zangief's Spinning Piledriver faster.

However, there are disadvantages as well.

- There's a relatively steep learning curve if you've never played on one before. Most new players struggle for quite some time when learning how to play on a fightstick because it requires finesse and practice.
- When you play in person, some players listen to their opponents' button presses and look at their opponent's fightstick out of the corner of their eye.

My personal preference is to play on a fightstick, but that's because I've been playing on one since I was a kid. I also don't play a lot of other console games on a controller, so I don't have a lot of experience with controllers. Ultimately, whatever you are most comfortable with will serve you best.

If you are interested in learning to play on a fightstick, my recommendation is a [Mad Catz TE 2](#). I've been playing on Mad Catz sticks since 2009, as they are my favorite. As of this writing (early 2016), they are currently in short supply, but as the release date of SF5 gets closer, you can expect them to be more widely available.

I suggest getting a PS4-compatible stick because they work on both PS4 and PC, so you can play SF5 on either platform. If you currently have a PS3 or Xbox 360 stick, these are likely to work on PC, but will probably not work on PS4 without an adapter such as the [Brook Converter](#), which may or may not end up being tournament legal. Note that you need additional software such as [JoyToKey](#) to use a PS4 stick with SF5. I have no idea why, but that's the way it is currently.

However, it's worth noting that if you only plan on playing on PC and already have a PS3 or Xbox 360 fightstick, there's no need to upgrade. But it would also mean that it would be a pain in the ass if you tried to play at a friend's house or a tournament run on PS4.

If you're more comfortable playing on a pad, I would suggest getting one of the new [Mad Catz PS4 fightpads](#). These are designed with Street Fighter V in mind and have six buttons laid out next to each other which makes it easier to hit HP and HK.

A Quick Shopping List

If you are able to take these simple (although possibly expensive) steps toward consistency, you can feel confident that you are not relying on lag tactics or tricks that may only work in an online environment against weak players, and that you are learning the game the way it's supposed to be played.

In some ways, having to invest extra money in your setup can go a long way towards increasing your commitment to becoming a stronger player, too. So, save up and buy one piece at a time if you have to. When all is said and done, you will feel more confident in your setup and your game.

Here's a quick shopping list in case you are looking for my recommendations:

- [Playstation 4](#)

- [Street Fighter V Collector's Edition](#)
- [Mad Catz TE 2 Fightstick | \(Canada\)](#)
- [Mad Catz FightPad PRO](#)
- [BenQ Gaming Monitor](#)
- [Asus MX279H 27" Monitor](#)
- [Light Pack](#)
- [Actiontec Powerline Ethernet adapter](#)

FIGHTING GAMES 101

This section is for anyone who is completely new to the series or fighting games in particular, or just wants to brush up on some fundamentals. Either way, welcome! This is an exciting time to be diving into fighting games. There's plenty to learn, so get ready to enter a complex world of button commands, mental games, and eSports glory.

Fighting games, and Street Fighter in particular, aren't just a race to see who can press the most buttons faster in order to beat the crap out of each other faster. For the uninitiated, it's a game of controlling space, making quick and sharp decisions, managing resources, and maximizing opportunities to inflict damage on the opponent. Most new players think that if they just figure out their character's best combos, they'll surely be able to beat most opponents. Unfortunately, nothing could be further from the truth.

Without the proper foundation, you'll never be able to land any of those combos in a real match, especially against an experienced opponent. Without strong defense, you're definitely going to lose against players of various skill levels simply because you didn't realize defense was important (think about it: how do you stop someone from kicking your ass?). Without knowledge of the game, you have no idea that the game is far, far deeper than you realize.

Further, Street Fighter is all about your execution, or your ability to complete button commands flawlessly. If you cannot execute the proper move, combo, or defensive option when it counts, you're going to lose. I hate to sound like a downer, but I want to get this into your head that Street Fighter *isn't just fun and games*. It's serious training, even though we're only fighting "virtually". The same principles of consistency, dedication, respect, discipline, and incremental progress apply.

If you want to level up from wee nooblet to proficient fighter, you need the muscle memory and plenty of practice.

Without further ado, let's go over some very important basic concepts.

The Rock, Paper, Scissors Analogy

Street Fighter is often compared to a fast-paced game of rock, paper, scissors because the three main options in Street Fighter are to attack, block, or throw.

The rock, paper, scissors model helps you realize that there is no move or technique that is unbeatable. In fact, there is usually no single correct answer for any move or situation in Street Fighter--just shades of grey and possibilities. Of course, there are exceptions to this rule, but this is a good place to start learning. If you understand this framework, you can use it to better understand why you're winning and losing.

The concept of offense is simple. If you are attacking the opponent and they do not block, they take damage and you score a hit. On the other hand, if they do block, they will either take no permanent damage from a normal attack or a small amount of damage from a special move or Critical Art. The latter is commonly referred to as chip damage.

In theory, you could win if you just blocked everything that your opponent threw at you, right? Not quite, because we haven't considered the third option--throw. Throws are a constant threat when the opponent is near you because they are easy to execute and do a considerable amount of damage and stun to the opponent.

Performed by pressing LP+LK simultaneously when you're close to the opponent, throws cannot be blocked, but they can be avoided, or *teched*, by the opponent. Avoiding a throw is tricky, but it can be done by also pressing LP+LK simultaneously within a small window of time (about 1/5 of a second). Further, throws generally lose to fast attacks, such as light punches, light kicks, and a number of special moves.

Thus, if you think your opponent will attack, you should block. But if you think the opponent will throw, you should attack, or attempt to tech the throw.

But how do you know what your opponent will do? Your ability to recognize and utilize each of these options in the heat of battle will take time and experience to develop. Of course, you can't just mindlessly use the same option over and over--this makes you predictable. This predictability is what separates beginners from intermediate players. Beginners have only a few attacks in their repertoire and usually have no concept of how these attacks work and how they can be countered.

On the other hand, experienced players observe their opponent's tendencies and patterns and adjust their game to take advantage of the other player's weaknesses. Further, an experienced player has a better understanding of their character's options, as well as those of his opponent's, and can adjust his game to *bait* the opponent into making mistakes. For example, if he notices that his opponent never blocks on wake-up and instead mashes buttons or uses risky moves like a Shoryuken, he'd block or stand at a safe range, then punish relentlessly with a high-damage combo.

The Neutral Game

The neutral game refers to any point in a round where both fighters are on their feet and not knocked down. Technically, it could also be where one or both opponents are in the air or blocking, but let's not get stuck on specifics.

Every round starts with the neutral game. This is an important time for players to “feel each other out” and fight for screen position (the importance of which I'll touch on below), using a combination of walking back and forth, their normals, and special moves. Another term to describe the fight for space control in the neutral game is *footsies*, which uses normals and specials. You want to develop strong footsies because you will have a higher ability to deal damage and avoid getting hit, all the while limiting the opponent's options.

Experienced players tend to use quick normals that are harder to punish. The reason is to deal small amounts of damage, yes, but mostly to see how the opponent reacts. That should be your goal of the neutral game overall: to do small amounts of damage via normals and specials, while pushing the opponent towards the corner and limiting his attack and movement options.

The Importance of Screen Position

You may not know it initially, but screen position is a precious resource that can be used to your advantage, or against you if you're not careful.

When you push the opponent to the corner, it limits their movement options and causes most opponents to crack under pressure and make mistakes that you can then capitalize on. Generally, when the opponent is cornered, you can apply offensive pressure with normals, throws, and overheads. Once you've cornered the opponent, you should do your best to keep him there.

As you continue to apply pressure and deal damage, most opponents will begin to feel lots of mental pressure to do something about it or die. This is when they are very likely to take a big risk in order to escape, but this is also when the time is ripe for you to punish heavily, provided you correctly predict these risks.

But what happens when *you're* the one on defense?

The Best Offense is a Good Defense

If you're like most new players, panic quickly sets in when you're knocked down while the opponent is near you. You might cycle through some common options, like a wake-up Shoryuken or throw, or maybe you might mash random buttons and pray for a miracle.

Does this sound familiar?

Don't worry, a weak defense is normal. With some focus and discipline, you can make gradual steps to improve your defense.

A strong defense is very difficult to beat, plain and simple. Imagine that you have an opponent cornered, but you can't seem to land a hit because he techs all your throws, blocks your attacks, and seemingly can withstand an endless amount of corner pressure. That's a difficult-to-beat defense that separates good players from the greats, so let's step your own defense game up.

Teching Throws

Teching throws is commonly the weakest area of defense amongst beginners.

A throw tech is when your throw gets neutralized by the opponent's throw. This happens when the opponent presses the throw command (LP+LK) at nearly the same time.

In theory, it sounds easy, but in practice, especially when playing online, it's really difficult and frustrating.

As a beginner, you might fail to tech throws consistently due to one or more of the following circumstances:

1. You didn't anticipate the opponent's incoming throw, plain and simple.
2. You did anticipate a throw was coming but reacted too late due to inexperience, online latency, etc.
3. You didn't realize they were within throw range due to unfamiliarity with the throw range.
4. You made an input error due to lack of practice and precision.

The above are all very common in new players because throws can be a deceptively complex part of Street Fighter. Now let's examine more closely what you can do to reduce the chances of any of these situations happening to you in real matches.

You Weren't Expecting The Throw

Not expecting a throw is probably the most common reason that new players get thrown. You probably were not aware that a throw is so commonplace and important to your game. That's okay, we're going to fix that now.

The best way to learn how to integrate throws into your game is to commit to throwing the opponent every single time you get near them or knock them down.

Obviously, this is not a high-level strategy and won't work against more experienced players, but that's not the point. The goal is to get used to constantly looking for throw opportunities so that you gain a better understanding of how they can impact the flow of the match.

Action Step: Play five matches and attempt at least one throw per round.

You Reacted Too Late or Didn't Realize You Were in Range

This is also very common, especially online where various factors like internet traffic, latency, monitor lag, and flat out not having practiced enough can heavily influence your game.

You have less than a second (1/5th of a second to be precise) to tech a throw, so it's no wonder you get thrown a lot when you first start playing.

Oftentimes, throws are teched not because the opponent has amazing reflexes but because they also attempted a throw at nearly the same time. When considering the already small window you have to tech a throw, combined with online latency of anywhere between 50-150ms for most connections, you can see why it's easy to get thrown.

There's no perfect solution to solving a latency issue since even the latency between every online match will be different. However, familiarizing yourself with the range of your opponent's throws is a good step. Since each character has a different throw range (Zangief's Spinning Piledriver has a longer range than regular throws, for example), you should take the time to carefully measure the opponent's max throw range from standing and crouching positions.

You Made An Input Error

The throw command (LP+LK) appears to be simple on the surface, but during an actual match, it can definitely be easy to mess up the input. This can happen if you're unfamiliar with how to position your fingers on the fightstick (if you're using one), or it could also be from a lack of teching practice. To the latter point, much of fighting games rely significantly on muscle memory, so newer players will benefit greatly from spending the time to hone teching throws.

As for input error, there are a number of different variables: you could be missing the button slightly or your timing may be off and you didn't hit the buttons simultaneously. One trick I've found useful to make this easier is to go to Button Config and set one button to throw. Either the PPP or KKK button can be set to throw, which you can access more easily with practice.

The advantage of a one-button throw tech is that fewer input or timing errors can occur. Plus, if you become proficient in double-tapping buttons, you can effectively double your chances of teching a throw that would otherwise require two fingers pressing two buttons two times (that's a mouthful).

If you're playing on a controller, setting one button to throw is fairly common as well, so don't feel embarrassed to try it since it could quickly fortify your defense.

Refer to the *Starting Street Fighter 5 Training Mode Handbook* for an exercise on how to practice teching throws.

The Importance of Blocking

Another component of a strong defense is knowing how and when to block. Blocking is performed by either holding back or down-back on the controller when the opponent attacks.

It seems deceptively simple, but new players frequently struggle with blocking because they are oftentimes overwhelmed by the speed of the fight. A good rule of thumb to remember is that if you're not sure what to do in any given moment, your default decision should be to block low. Why low? Blocking low beats nearly every single offensive option the opponent has. The two exceptions are throws (both regular and command throws) and overheads (which must be blocked high).

The other reason you want to block low instead of high is that in general overheads are slow and easy to react to. Most characters cannot do massive amounts of damage after connecting.

Also, mid attacks can be blocked high or low, generally making blocking low a better option than blocking high.

In SF5, blocking normal attacks incurs a small amount of recoverable grey life damage, making blocking slightly riskier due to the possibility of the opponent scoring a clean hit. Once you create space between you and the opponent, and a small amount of time has passed, your health will begin to regenerate.

One situation in which you need to get used to blocking is after a knockdown. This is typically where new players struggle the most because they are not familiar enough with their defensive options or their opponent's offensive options. In fact, the most common reaction for a new player when they get knocked down is to mash buttons or do an unsafe Reversal, like a Shoryuken on wake-up. This is risky because if the opponent correctly predicts what you'll do, he will likely score a Counterhit and get the opportunity for big damage.

In addition to blocking low on wake-up, you must also remember to block low after nearly every single move. This is an important habit to get into because if you whiff a normal and your opponent did not punish fast enough, you'll have the opportunity to block his attack. However, if you forget to block low every time, you'll get hit due to being careless.

By making an effort to block on wake-up instead of trying to recklessly, say, Shoryuken, your problems away, your defense and mental fortitude will improve and you will make fewer risky decisions. Blocking low and reacting to throws and overheads are generally the safer options after getting knocked down. After blocking a few attacks, you should be able to backdash to safety and reset the situation by returning to your footsies/neutral game, provided you weren't already cornered.

Remember that blocking beats all attacks except for throws. In addition to reacting high to block overheads, you'll also need to react to throws by teching.

In the neutral game, it's worth noting that you should be careful about backdashing or jumping back because you give up significant screen position. All in all, taking small steps and blocking low are safer ways to advance forward than dashing or jumping.

Blocking Cross-Ups

A cross-up is usually an air attack that hits on the opposite side of where the opponent starts. There will be situations where you are forced to block a cross-up either while standing or on wake-up.

Cross-ups must be blocked by holding the other direction on the controller, meaning that if you are on the left and the opponent is on the right and performs a cross-up jump-in, you must hold right on the controller in order to block. If you continue to hold left as though the jump-in were aimed to hit from the front, you will get hit and likely eat a large combo.

The best way to defend against cross-ups is to consider when they may be useful and when they may put you in a bad situation. Oftentimes, I see newer players go for cross-ups when the opponent is cornered, but they instead end up putting themselves in the corner.

Maybe you're going for the element of surprise. Yes, it is true that most experienced players would not expect you to put yourself in the corner with a cross-up. However, an experienced player will likely be able to keep you in the corner for the duration of the round, thus defeating your master plan of confusing your opponent with an unexpected cross-up. Don't ever use this cross-up.

The better case would be when you are in the corner and realize that a cross-up jump-in will get you out of the corner while still keeping your opponent in blockstun. I would argue that even while standing mid-screen, a cross-up is not as effective as making your opponent *think* you will go for the cross-up. This will all make more sense as you play the game, and check out these general rules of thumb for cross-ups:

- Do not put yourself in the corner for the sake of going for a cross-up. Getting screen position advantage is more important.
- If you can condition your opponent to block in front a few times after a knockdown, a cross-up the next time you are in that situation is more likely to hit.
- Cross-ups can usually be hit by a 3-frame Reversal, such as a Shoryuken.
- An ambiguous cross-up can be a great way to end the round if the opponent is near death.

RESOURCE MANAGEMENT

As mentioned earlier, Street Fighter is also a game of resource management. Your resources in Street Fighter 5 include:

- Critical Gauge (access to EX Special Moves and Critical Arts)
- V-Gauge (access to V-Reversal and V-Trigger)
- Life bar
- Screen position, relative to how far away you are from your own corner
- Timer

Keep in mind that your opponent has these same resources. It'll take time and a strategy to effectively use each of these. Let's start with what is both the most and least obvious resource of them all: your life bar.

The Life Bar

For many situations, the life bar is important because it seemingly dictates who is in control of the match, or more simply, who will win or lose. Yet in other situations, the life bar is simply less important than screen position, V-Gauge, and Critical Gauge.

That is because the life bar matters only if it reaches *zero*. You could be hanging by a pinky at 1% life left and your opponent could have 100%, but it doesn't matter until one of you reaches 0%. That 1% means a comeback is always a possibility, regardless of how unlikely it may seem at the time.

Essentially, you can use your life bar to gain more information about your opponent and place bets on how he will react.

When fighting in a best-of-three scenario (such as in a tournament in which you must win two out of three games to advance), the entire first game can be thought of as an opportunity to gather information on the opponent. John Choi, OG Street Fighter legend from Northern California and Evo 2008 Capcom vs. SNK 2 Champion, has often stated that the purpose of the first round is to learn the opponent's capabilities and tendencies. Then, you can apply that knowledge to rounds two and three.

For instance, you can wager some of your life bar to find out what the opponent tends to do in wake-up situations and what they like to spend their resources on. You'll find that oftentimes players get too concerned with their life bar and tend to make costly mistakes when they fall behind in health. They usually end up losing because they start making errors out of anxiety and fear, like jumping in at the wrong time, pressing an imaginary or temporary advantage, or doing an unsafe Reversal on wake-up.

At first, risking your life bar for information isn't easy to get used to, but you'll get better with time and will soon be able to gather more information on your opponent without panicking and making many errors yourself.

Here are some general rules of thumb about the health bars as a resource:

- In a best-of-three scenario, you have as few as four rounds and as many as nine rounds to learn enough about your opponent to counter their strategy and tendencies.
- If you've fallen far behind in life, remember that your other resources like EX Meter, V-Reversals, and V-Trigger are there to help you mount a comeback.
- If you have gained the life lead, be careful not to overextend yourself by attacking recklessly. Usually, playing it slow and safe will be a surer path to victory.
- If you don't have the life lead but have them trapped in the corner, the screen position advantage is more important than the life deficit because most players will crack under corner pressure.
- Blocking projectiles and other special moves cost you significantly only if you have about 10-15% life left. In the early- to mid-game, you shouldn't worry about taking chip damage and should focus your efforts on screen position.
- Blocking normal attacks now does recoverable grey life damage to the opponent. Force the opponent to block a continual sequence of attacks so that all it'll take is one clean hit of any attack to make that damage permanent.
- Try to keep your life bar on par with or slightly ahead of your opponent's. If your opponent is 5-10% ahead in life, there's no reason to try something really risky that will cost you a larger chunk of health when it doesn't pan out.

Critical Gauge

Your Critical Gauge is important because, as it builds up, you gain access to new abilities and options, such as EX versions of special moves and Critical Arts (SF5's version of Super Combos).

EX version of special moves are simply powered-up versions of the character's moves, giving them additional properties, such as invincibility, ability to score a knockdown on hit, dealing additional damage, or the ability to pass through projectiles. These all cost one EX stock and are performed by pressing two buttons at the end of the special move command instead of one (such as D, DF, F+PP instead of D, DF, F+P).

Conversely, Critical Arts cost your entire Critical Gauge (all three stocks). These are useful for ending a round, finishing a combo, or punishing an opponent's mistake. Each character's Critical Art varies in how it can be used in battle. Some characters have lots of uses for EX Special Moves, while others might be better off with saving their meter for a Critical Art.

Critical Arts are also extremely important in SF5 because there are no more chip damage victories (unless you block a Critical Art). In previous versions of Street Fighter, chip damage victories occurred when the opponent had no health and blocked a special move. In SF5, the only way you can be "chipped out" is by blocking a Critical Art. In other words, if you have really strong defense, you can mount quite the comeback.

The key with an EX Meter is knowing when to use it to gain the advantage in a match. Usually, inexperienced players either carelessly waste their EX Meter, or worse, they forget they have EX Meter at all and miss many opportunities to deal lots of damage or gain a positional advantage.

Here are some general rules of thumb about EX Meter:

- Try to keep your EX Meter on par with or ahead of your opponent's.
- Dying with full Critical Gauge still means you lost, so you might as well create a plan to use it before you die.
- Using your entire Critical Gauge to end a close round is still better than losing the round because you were being too frugal with your meter (especially if you used it to "chip out" an opponent who seemingly would not die).
- If there is a situation in which you have a lot more meter than your opponent at the start of a round, it's likely that you missed some opportunities to spend some in the previous round.
- Generally, a combo with multiple EX Special Moves doesn't do enough damage to warrant the extra use of meter and is inefficient compared to the resource cost.
- Make an effort to approximate how much meter is gained or lost from your go-to blockstrings and combos, as some characters build meter much more quickly than others.
- You build the most meter when your attacks are *not* blocked. You still also gain a small amount when they're either blocked or you take damage.
- You don't build any meter from whiffing (or missing) normals, but you do build a little bit if a special move whiffs.

In SF5, the EX Meter has been changed to max out at three bars instead of four like it did in SF4. Hence, you must be more consciously resourceful with your EX Meter in SF5. To recap, it costs only three bars to use your Critical Art, while a EX Special Move costs a third of your bar.

V-Gauge

The V-Gauge is similar to the Ultra Meter, if you were familiar with that in SF4. I'll go into much detail in the next section, so for now, just know that you should focus on building a strategy around using it rather than simply trying to build the gauge. The reason is that most players can build four V-Gauge stocks pretty easily in every round. Don't worry, we'll also go over how the V-Gauge is built in the next section.

Either way, remembering that your V-Gauge is a resource and rebuilds every round is food for thought for becoming a stronger player.

Screen Position

Screen position, or positional advantage, is more like a “hidden” resource in the game, as there is no visible meter for it. Most new players don’t even consider positional advantage to be something worth paying much attention to. But think about it: if you push your opponent to his far side of the screen and corner him, you will make your opponent panic.

The advantage of having extra room behind you is that you don’t need to press your advantage too hard, or take very big risks. They’ll hang themselves for you. Most cornered players will do whatever they can to escape, including an obvious, easy-to-punish jump or a reckless Reversal. Even against a really strong opponent, you would still have plenty of extra room to maneuver before you get pushed back into your own corner.

Most characters in the Street Fighter franchise do not have an easy way to get out of the corner. Even those that do, such as characters with teleports, must incur a fair amount of risk due to the recovery and predictability of these moves.

Let all of this sink in first because we’re not done yet! The next section will specifically address those changes in Street Fighter 5 and how they can be applied to your game.

Considering Risk/Reward

Oftentimes your success or failure in fighting games comes down to your ability to properly assess risk/reward scenarios quickly. Risk and reward refers to the amount of damage you could deal if your attack connects successfully compared to the amount of damage you would likely incur if the opponent blocked.

For example, if you get knocked down and choose to wake-up Shoryuken because you think the opponent will attack you, the reward is 120 damage if you are correct.

If the opponent blocks, the risk is that you will eat far more than 120 damage, depending on the resources the opponent uses to punish you. A typical Crush Counter combo with no V-Trigger or EX Meter used will likely deal well over 300 damage, making it a far bigger risk to Shoryuken as opposed to blocking and potentially eating a throw which would only do around 140 damage.

As the opponent has more resources, the risk/reward skews even more heavily in the attacker's favor.

There is no perfect answer or solution to anything in fighting games, but at least considering this concept in battle can help stop you from making costly mistakes.

OVERVIEW OF STREET FIGHTER 5

Street Fighter 5 has undergone many changes from the multiple iterations of Street Fighter 4. The good news is that the core of Street Fighter--with any fighting game even--remains the same. The goal is still to get your opponent's lifebar to zero through a combination of space control and dealing damage through combos and punishing their mistakes.

If you have previous SF4 experience, the tools and systems in SF5 might feel really different at first. In this section, I'm going to outline some of the major changes.

The biggest change is Capcom's design philosophy behind the creation of SF5. Based on the conversations I've had with various members of the Capcom SF5 team, it's clear that they aimed to make a game that was even more exciting to watch than SF4. You could say that SF5 was built with esports in mind. They also wanted SF5 to be easier to play for new players to get started.

This marked design difference makes SF4 feel dated by comparison. Remember that SF4 was released in 2008, which means that development *started* several years prior to that. Think about that for a moment. It's likely that people within Capcom were designing what would eventually become SF4 in 2005-2006--all before the advent of YouTube, before Facebook really took off, and before the fighting game community and esports exploded in popularity.

Now, SF5 is chock full of features to help you improve certain aspects of your game, such as new training mode features and the ability to connect with players around the world through improved communication and match-making. Not to mention the differences in pacing and the in-game decision-making.

Think of SF5 as a mix of the best elements from previous Street Fighter games, such as Street Fighter III: 3rd Strike, Street Fighter Alpha, and Super Street Fighter 2 Turbo, with a little bit of Street Fighter 4 baked in.

With that said, the game is both simultaneously simpler and more complex at the same time. How can this be? Well, gone are the days of option selects that cover multiple wake-up options, like backdash invincibility and Reversals (more on this later). In fact, the wake-up game is probably one of the biggest changes to the feel and flow of the game, since there are very few hard knockdowns in this game. (Don't worry, we'll go over all of this soon.)

Further, Focus Attacks have been replaced by V-Skills, which are unique to each character. This change means no more low-risk/high-reward, mid-screen Focus Attack nonsense. Now when playing "footsies" in the neutral game, you must rely on your normals to connect with your opponents, not with the near-catch-all Focus Attack of SF4.

The removal of Focus Attacks and much of the wake-up guessing game makes the game simpler, but what makes it more complex?

Answer: the Crush Counter and V-Gauge systems.

In Street Fighter 4, a Counterhit was scored when the attacker's move interrupted the opponent's move in its startup frames. These Counterhits scored a little bit more damage and stun, as well as provided extra Frame Advantage and allowed for Counterhit-specific combos that wouldn't otherwise be possible.

In SF5, the Counterhit system has been expanded with the introduction of Crush Counters. A Crush Counter is scored when connecting with a heavy attack (HP or HK) that interrupts the startup frames of any move, including throws. After you land a Crush Counter, the opponent is put in an extra long grounded hitstun state or airborne juggle state, allowing you to score additional damage/stun and continue

the combo.

This system, along with the V-Gauge system (which replaced the Ultra Meter from SF4), add a lot of depth to the game because each character can take advantage of both Crush Counters and V-Gauge effectively. The V-Gauge is similar to SF4's Ultra Meter: you build it by incurring damage and using your V-Skill successfully.

Each character's unique V-Skill is performed by pressing MP + MK simultaneously. Some are counters like Ryu's parry, and others are movement-based like Ken's run.

Once the V-Gauge is full, the character can activate his or her unique V-Trigger move. Some V-Triggers stay active for a period of time, like M. Bison's Psycho Power mode (which gives certain moves additional damage or properties). Others are one-shot uses, like Nash's teleport.

How you use your character's V-Gauge is largely up to you, of course. Most characters have multiple ways for them to use their V-Triggers inside and outside of combos.

Additionally, there is V-Reversal, which is similar to an Alpha Counter from the Street Fighter Alpha series.

Don't worry, as I mentioned, we'll go more in-depth into each of these new features. This is simply a quick overview of the new systems before we go any further.

As players gear up for the launch of SF5, there has been a lot of chatter amongst top players that the game is "too easy" or "too simple." I can assure you that there's plenty of depth to this game. Just because something is seemingly simple on the surface doesn't mean there's not plenty of substance below it.

I want to also dispel the myth that the game is slow. It only seems slow because you probably haven't seen it played by people who really understand the game. Or maybe you just haven't had your ass beaten quickly and efficiently yet. Those days will soon come--just you wait.

All right, now that you've had a brief taste of some of these changes, let's take a closer look at more elements of SF5 and how they all tie in together.

SYSTEM CHANGES AND HABITS TO CHANGE

As mentioned in the previous section, the V-Gauge System and Crush Counters play a huge role in differentiating SF5 from all other iterations of the franchise. Let's dive deeper into each of these.

V-System

Perhaps the most noticeable difference between SF4 and SF5 is the V-System. In SF4, the equivalent is the Revenge Gauge, a.k.a the Ultra Meter, which allows you to unleash a Level 1 or Level 2 Ultra Combo.

In SF5, this has been replaced by the V-Gauge, which builds similarly and resets every round.

Your V-Gauge fills up by:

- Incurring damage from the opponent's attacks
- Blocking the opponent's attacks
- Successfully using your V-Skill
- Scoring a Crush Counter on the opponent

Some characters (Ryu and Cammy, for instance) have a two-stock V-Gauge, whereas others (Birdie and M. Bison) have a three-stock gauge. This adds an additional layer of depth and uniqueness to each character because you must manage your V-Gauge differently, depending on whether your character has a two- or three-stock gauge.

V-Gauge can be spent on V-Reversals which cost one stock and V-Trigger which uses the entire gauge.

Let's take a closer look at each element of the V-System.

V-Trigger

V-Trigger becomes available when your V-Gauge is fully stocked and flashes red. As mentioned earlier, some characters have two stock V-Gauges and others have three.

V-Trigger can be activated by pressing Heavy Punch (HP) and Heavy Kick (HK) simultaneously. Each V-Trigger is unique to each character and they generally fall into one of the following categories:

- Ongoing power-up modes
- One-shot actions

Here's a breakdown of each character's V-Trigger and which category they fall into:

Character	Ongoing Power-Up Modes	One-Shot Action
Birdie		
Cammy		
Chun Li		
Dhalsim		
F.A.N.G.		
Karin		
Ken		
Laura		
M. Bison		
Nash		
Necalli		
R. Mika		
Rashid		
Ryu		
Vega		
Zangief		

Generally, V-Triggers can be activated at any time when your character is standing or by cancelling a normal attack, like Ryu's st. HK. Normals that are special-cancelable (i.e. Cammy's cr. MK) can also be cancelled into V-Trigger. This allows for V-Trigger to be used in the middle of combos, as well as in the neutral game or after a knockdown.

Some characters, such as M. Bison and Ken, can activate their V-Triggers during special moves, such as Scissor Kicks and Shoryuken.

Power-Up V-Triggers

For characters with power-up V-Triggers like Ryu's and Birdie's, the activated V-Trigger gives them a temporary boost in damage, stun, or enhanced abilities for special moves.

For example, Ryu's V-Trigger gives him access to Denjin Hadokens which deal more damage, stun, and become unblockable if fully charged by holding down the punch button. Other moves, like Cammy's Spiral Arrow, are faster, gain projectile invincibility, and travel through the opponent if blocked, making them harder to punish and allowing more chances of juggle if it successfully hits.

Once activated, power-up V-Triggers slowly drain the V-Gauge at a rate that varies by character. On the

short end of the spectrum, V-Trigger lasts about 14 real-time seconds for Ryu; and on the far end of the spectrum, it lasts about 68 seconds for Birdie and until the end of the round for Necalli.

There are a few factors that can shorten the length of V-Trigger, even once it's activated. Many characters use up some of their V-Trigger gauge when they use their special moves after activation, like with Cammy's Spiral Arrow.

Since V-Gauge builds relatively quickly, you can often get more than one activation in a round. It's possible to activate a two-stock V-Trigger twice per round, or to use one stock on a V-Reversal, or two throughout the round, and have enough time to build up a second V-Trigger gauge towards the end of the round.

Additionally, V-Trigger does have some startup frames, which means that characters can be "hit out" during its activation. However, even if you get hit out of the V-Trigger startup, you still maintain your activation and the special properties your character gains.

One-Shot V-Triggers

Most power-up V-Triggers are relatively straightforward in their offensive utility, whereas one-shot V-Triggers are arguably more flexible and versatile.

For example, Nash's V-Trigger is a controllable teleport that puts him either behind, above and in front of his opponent, or above and behind his opponent. In addition to extending combos, it allows for extremely dynamic mix-up potential, as well as a way to get out of sticky corner pressure situations.

R. Mika's V-Trigger calls her tag-team partner Nadeshiko, who attacks from above, left, or right side of the screen. This can be used within combos, as an anti-air, or to create a mix-up scenario that forces the opponent to guess when and from where Nadeshiko will attack.

Technically, V-Triggers could be considered a comeback mechanic, but not in the same way that SF4's Ultra Combos or Ultimate Marvel vs. Capcom 3's X-Factors are. You still have to earn the extra damage potential that V-Trigger affords. It will be interesting to see how V-Gauge management strategy develops and evolves as people gain more experience with the system and the game.

V-Skill

Each character has a unique V-Skill that can be used by pressing Medium Punch (MP) and Medium Kick (MK) simultaneously. Some characters like Ryu, Nash, and M. Bison have a parry or parry-like move that can deflect regular attacks and projectiles. Others, like Cammy and Chun Li, have V-Skills that are used to cover weaknesses, such as difficulty getting around Hadokens.

V-Skills build V-Gauge when they make contact with the opponent, even if they are blocked. However, a parry V-Skill will not build meter if whiffed. Parry V-Skills seem to build about 1/12 of one V-Trigger stock if you land one successfully. For a character like Ryu or Nash, that means that if you successfully parry 24 projectiles, you will have a fully stocked V-Gauge and can activate V-Trigger.

Some characters like Rashid have different variations of their V-Skills that allow for additional movement options. Rashid's crouching V-Skill makes him roll on the ground and includes an option to end on a kick that launches the opponent. His standing V-Skill is a fast jump, with the option to dive-kick at the end.

V-Reversal

V-Reversals are SF5's version of Alpha Counters from the Street Fighter Alpha series. They are performed by pressing forward and all three punches, or all three kicks, depending on the character.

They cost one stock of V-Gauge and can be used to quickly create space between you and your opponent when they apply pressure.

Most V-Reversals are attacks, and if landed successfully, inflict recoverable grey-life damage to the opponent. (However, a few characters like Nash, Rashid and Vega, have evasion V-Reversals that allow them to get out of sticky situations but do no damage.) We'll cover grey life in detail later.

V-Reversals can also be used to save yourself from taking chip damage, even if you are about to be chipped out by a Critical Art. For example, if Ryu does cr. MK xx Critical Art, Birdie can V-Reversal the cr. MK to avoid being hit by the Critical Art.

They're also useful for high-pressure situations. You can use a V-Reversal to buy a few precious moments to let your stun gauge reset, to stop the opponent's pressure, or to use towards the end of the round because they do a proportionately higher amount of recoverable grey life damage. After all, if you had less than 100 life left and you got hit by a V-Reversal, you have to be extra careful that you don't get hit again or else the damage becomes permanent, and you are one step closer to death.

Learning to be observant of your V-Gauge at all times, as well as having a strong handle on your V-Gauge management, is an important part of becoming a stronger SF5 player. It can take some time, but it's well worth the effort.

3-Bar Critical Gauge

A major adjustment to SF5 is the change from a four-stock Super Meter to a three-stock one. In SF4, you could use one stock on EX Special Attacks, two stocks on Focus Attack Dash Cancels and Red Focus Attacks, three stocks on EX Red Focus Attacks, and four stocks on a Super Combo.

In SF5, with only three stocks in your Critical Gauge, you can still use one stock on an EX Special Attack, but a Critical Art, SF5's version of Super Combos, costs three stocks.

To my knowledge, there are no attacks that cost two stocks.

Ultimately, this all means that the way you manage your meter will be different. Some characters will benefit heavily from the additional damage that one-stock combos afford, while others are better suited for saving their meter for Critical Art or EX Special Attacks that have invincibility.

For example, a character like Rashid has no Reversal with invincibility, except EX Spinning Mixer which costs one stock. He also doesn't have a lot of combos involving EX Special Moves. In fact, EX Eagle Spike doesn't combo in some situations in which MK Eagle Spike does. This means that rather than using one stock of your Critical Gauge on an EX Special Move in a combo, you might be better off saving it for his Critical Art or using it on a Reversal EX Spinning Mixer to get the opponent off of you.

A character like R. Mika, on the other hand, may find herself frequently using meter in combos for screen position advantage. Her Passion Press (F+MP) can be followed by an EX Shooting Peach and afford her lots of corner push, which plays to Mika's strength.

This seemingly minor change from a four-stock meter to three creates lots of additional depth in the game. It will be interesting to see the strategies for meter resource management change and evolve for each character over time.

The Combo System

Now, let's talk about some of the changes to the combo system in SF5.

It's important to note that the combo system has been revamped a bit in SF5. From my understanding, there's less emphasis on precise execution (in other words, there is additional input leniency) to make otherwise difficult 1- and 2-frame links easier to perform.

For example, V-Reversal, V-Trigger, and V-Skills don't require any complicated motions or precision, so they're all easier to execute now. Additionally, priority linking (plinking), which was a technique in SF4 to make combos easier, has been removed.

This additional input leniency aligns with the intentional shift in SF5's design philosophy, which as we discussed previously, is more focused on being spectator-friendly in an esports setting. After all, why force players to spend endless hours practicing ridiculously difficult 1-frame link combos when they could redirect that energy toward matchup knowledge and studying opponents?

So with that, SF5's combo system is different. For one thing, SF4 combos that once started frequently with cr. LK or cr. LP no longer work the same way. For example, Ryu's cr. LP doesn't link into cr. MP the same way, but you can still chain LP into itself.

Additionally, chained normals can now be cancelled into special moves. This might seem like a minor difference, and without getting too technical, this was a major execution hurdle for new players in SF4. In SF4, in order to cancel a light attack into a special move, you had to *link*, not *chain*, the light attacks together. As a refresher:

Chain Combo - *Chain combos usually involve more than one light attack whose animation is cancelled into the next light attack. These usually can be cancelled into a special attack. For example, Ryu can chain two crouching Light Punches together and then cancel into a Shoryuken.*

Link Combo - *This is a type of combo in which one move's animation finishes completely and the opponent is kept in hitstun long enough for the next attack to connect before they can block. This is different from a "cancel" in which the animation is cancelled instead of being allowed to finish.*

This made combos needlessly difficult for beginners so I don't think anyone will miss this element of SF4.

Additionally, SF5 also makes more use of Target Combos than SF4.

Target Combo - *Target combos are specific button combo sequences that have been built into the character and flow together. They don't require very precise timing like links do, but they differ from chain combos in that they aren't limited to light attacks.*

Ryu's Target Combo, for example, is st. MP, st. HP, st. HK which scores a knockdown on hit. Some characters like Nash have a plethora of Target Combos that keep opponents in blockstun, or does extra damage if he gets an opening.

As a result of Target Combos and less focus on perfecting execution, more players should be able to spend less time on difficult execution training and more time on strategy development.

Stun Gauge

The stun gauge is a welcome addition to SF5. Located just underneath the life bar, it shows how close you or the opponent is close to becoming “dizzy.”

Dizzies have always been a part of Street Fighter games, and the stun gauge isn’t exactly new either. It was a feature that was last seen in 3rd Strike, but was not included in SF4 for some unknown reason.

In 3rd Strike, it was relatively rare to see a dizzy because most combos didn’t do enough stun damage, whereas in SF4 it was difficult to tell *when* your opponent was on the verge of being dizzied. This oftentimes led to dizzies coming from seemingly out of nowhere, both on offense and defense.

In SF5, the stun gauge builds up quickly from many different situations, making it easy to tell when you should be keeping the pressure on your opponent and when you need to play carefully on defense.

The stun gauge will continue to build as you take damage, yet it will remain static if you are blocking or using a V-Skill that absorbs hits, such as Ryu’s parry.

If you’re about to be dizzied, don’t panic. Your stun gauge will decrease on its own when you evade hits completely for a few moments. A good way to counter offensive pressure is with a V-Reversal. It can buy the precious seconds needed to reset the stun gauge.

You can actually use the stun meter to your advantage, especially if your opponent starts getting overeager in trying to land the last hit or two required to dizzy you.

In such high-pressure, near-dizzy situations, a strong defense will save you from being stunned.

Magic Pixel & Chip Damage

The Magic Pixel refers to the last bit of life you have in your health bar. In previous Street Fighter games, if you had a sliver of health left, you could be “chipped out” by a special move, such as a Hadoken or a Super Combo. In SF5, you cannot be chipped out by special moves, making it always possible to keep hope alive and come back with a series of smart decisions and clutch play.

However, you can still be chipped out by a Critical Art, but since Critical Arts cost all three stocks of your EX Gauge, it is a relatively expensive way to end a round if you’re not confident you’re going to win the game.

With the Magic Pixel, a comeback is always possible. It is a very interesting and complex comeback mechanic that requires strong defense and the correct reads.

Even with a wide gap in health, an opponent with no health left but is hard to kill can become increasingly scary, potentially leading you to overextend or make mistakes that could result in a swift turn of the tides. Some characters without an overhead or a Critical Art that does chip damage (i.e. R. Mika) may find themselves in very difficult situations when trying to finish off an opponent that seemingly will not die.

Throws and Crouch Tech

Throws (LP+LK) are an important part of Street Fighter because they are the most straightforward way to counter an opponent's blocking. They have become stronger in some areas while becoming weaker in other areas. Let's start with how they've gotten weaker.

All throws have a 5-frame startup, as opposed to SF4's 3-frame startup. This 2-frame difference makes it much easier to jab (cr. LP) an opponent out of a throw attempt in SF5.

Additionally, throws no longer cause a hard knockdown, which means you can Quick Rise from them. This changes the wake-up game significantly. Now, instead of having time to dash forward and force the opponent to deal with your offensive pressure (by forcing them to choose to block, attempt a throw tech, wake up with a Reversal, or back dash), the opponent can recover in time to jab you out of throws and most normal attacks.

Let's take this scenario, for example: If Ryu connects with a forward throw, then dashes forward to attempt another throw or non-light meaty attack, he will easily be hit by a wake-up low jab from the opponent. What's more: most, if not all, back throws leave the attacker at -2 frame advantage, making it practically impossible for you to continue offensive pressure with them.

Further, this means that after a forward throw--and in order to time a meaty attack--you cannot dash first and attack because then your opponent will have already stood up. This change may take some getting used to for long-time SF4 players.

It's not all bad. One area where throws have gotten stronger in SF5 is that many do 170-200 stun. That's a huge increase of about 20-50 stun points from most throws in SF4! With that, plus the combination of longer startup and seemingly shorter ranges, I believe throws are best saved for the end of an offensive sequence, when the opponent is near stun.

Crouch Teching

In previous Street Fighter games, such as 3rd Strike and SF4, it was possible to protect against throws with a *crouch tech*. Because it seemingly had very little risk with high reward, it was widely abused by players of various skill levels. Now crouch teching has been removed from SF5 completely.

Option Select - *An option select is a single command that executes two or more "options" in the game, depending on what the opponent does. These were widely abused in SF4 where some option selects would save you from pressure or allow you to apply additional knockdown pressure.*

For example, a simple option select is pressing cr. LP + cr. LK while blocking low. If the opponent attempts a throw, you'll tech successfully, but if they do anything else, a cr. LK will come out which can then be converted to potentially large amounts of damage.

In SF5, whenever you press LP and LK simultaneously while grounded, your character will execute a standing throw, even if you are blocking low. This can leave you extremely vulnerable if your opponent anticipates it and punishes accordingly with a high-damage combo when/if it whiffs--and you can expect to get punished severely if you whiff a throw.

Baiting whiffed throws and punishing hard were crucial in 3rd Strike and SF4, so you should expect the same in SF5.

However, there is a major difference in "stuffing throws" in startup animation.

To better understand what I mean by that, I have to briefly talk about what this meant in SF4.

In SF4, if the opponent performed a wake-up throw and you countered by having a *meaty attack* timed

as they wake up, the throw would be “stuffed” with no additional indication from the game that something important had happened.

Meaty Attacks - *A meaty is an attack that's timed to connect as the opponent is getting up from a knockdown. This forces the opponent to block or take the hit, unless they have a Reversal with startup invincibility.*

However, if you stuff an opponent's normal (non-throw) attack in its startup frames, a Counterhit is scored and the game notifies you as such.

Contrast that to SF5's engine, where stuffing a throw in its startup frames with an attack results in a Counterhit, or Crush Counter if the appropriate attack is used. (We'll get more in-depth into Crush Counters later, but for now all you need to know is that a Crush Countered throw can lead to major damage without needing to spend resources like EX Meter or V-Trigger.)

The moral of the story here is that if you fall into old SF4 habits of crouch teching on wake-up, your whiffed throws will be punished by lots of Crush Counter damage and throws by experienced and prepared players. So, make sure you do your best to rid yourself of this bad habit before you get it *beaten* out of you!

No Focus Attack

Yet another difference between SF4 and SF5 is the stark absence of Focus Attacks. Once activated by pressing MP+MK, Focus Attacks were used to absorb one hit (or multiple hits in the case of Red Focus) from your opponent and counterattack with crippling damage if charged long enough. Additionally, things like Focus Attack Dash Cancels (FADCs) were also used to cancel special moves like Shoryukens to safely get out of sticky wake-up situations, or extend combos into Ultra.

As I mentioned, you won't find these in SF5. In place of Focus Attacks, you have V-Skill which we covered in an earlier section.

No Backdash Hit Invincibility

SF5 has done away with hit invincibility during backdash startup frames.

Backdash invincibility was a controversial (and often abused) feature in SF4. Every character had it. Most characters in SF4 had eight frames of backdash startup invincibility, which made characters like Rose and Chun Li, who had especially long backdashes, extremely hard to pin down after a knockdown. Additionally, techniques like Focus Attack Backdash made it possible to absorb one hit and then use the backdash invincibility to escape offensive pressure after being knocked down.

Without being able to FADC a wake-up Reversal, crouch tech, or backdash with invincibility, you have fewer practical escape options. This means you need to build a strong defensive game, as well as develop the ability to tech throws.

Even though you don't have backdash invincibility, you are still considered airborne during startup, making backdashes a viable option if you think the opponent will attempt a throw on your wake-up.

Backdashes have the potential to be Crush Countered, just like throw attempts do: Hitting the startup frames of a backdash will result in a Counterhit state, and subsequently, a Crush Counter scored, if you use the correct normal attack.

Grey Life Damage on Blocked Normals

Grey life damage refers to recoverable damage incurred from blocking normal attacks, absorbing hits with an armored move, or successfully landing a V-Reversal. This life regenerates over time on its own unless another attack makes contact.

This is similar to the grey life system in SF4, where you would take grey life damage when absorbing an attack with a Focus Attack or armored move.

However, in SF5 grey life damage is incurred by blocking normals and getting hit by V-Reversals. This is brand new to the series because normals have never dealt grey life damage before.

Grey life damage becomes permanent if a hit is scored successfully before it regenerates. Blocking additional attacks while having incurred grey life compounds your grey life damage, although grey life begins to regenerate after a period of 90 frames (or 1.5 real-time seconds) of no contact with the opponent. If grey life begins to recover but you block an attack, the 90-frame counter resets and you take additional grey life damage.

Essentially, you must play very carefully when you've sustained grey life damage from blocking normals or getting hit by a V-Reversal because one hit, no matter how small, leads to permanent damage.

Blocked normal attacks deal 15% of their normal damage value in grey life. For example, a move that does 100 points of damage on hit would deal 15 points of grey life damage when blocked.

This change has been made to discourage a pure turtling (highly defensive) style and encourage fast, rushdown offense and add additional mental pressure to the defender.

Overall Higher Damage

You may notice that there's been an overall increase in damage dealt by combos, special moves, and Critical Arts. High damaging combos make for faster, more exciting rounds that also make SF5 feel more quick-paced and less forgiving than SF4.

The damage scaling has also been changed. Critical Arts that occur after dizzies can still deal a substantial amount of damage. Contrast this with SF4, where using a Super after a dizzy was generally considered to be a waste because it did very little damage. Taking into account these changes and considering your available options now--a visible stun meter, V-Trigger activation and Magic Pixel--comebacks can definitely happen quicker than they did in SF4.

Still, keep in mind that they have to be "earned" by making several decisions instead of making just one that results in a high-damaging Ultra Combo.

Fewer Hard Knockdowns

Previously, a hard knockdown meant the opponent could not Quick Stand, affording you the opportunity to get a meaty, unblockable, or frame trap. In SF5, it seems only *some* (not all) Critical Arts causes a hard knockdown, whereas you could achieve a hard knockdown from sweeps, throws, command throws, Supers, and Ultras in SF4.

Ultimately, this means the pace of the game is significantly faster because you don't have the luxury of time to go for a tricky setup.

Normal and Back Recovery

With the removal of many hard knockdown situations, SF5 instead adds this new element to the wake-up game: Back Recovery. Back Recovery differs from Normal Recovery (or Quick Stand from SF4) in that your character does a backflip on wake-up which pushes you a bit further away from the opponent on knockdown.

This gives you the option to create additional space on knockdowns, and makes it a bit harder for the opponent to continue offensive pressure.

That said, the command for each recovery should be performed as you hit the ground.

The command for Back Recovery is simply pressing back on the controller or tapping any two kick buttons; while Normal Recovery is performed by pressing down or tapping any two buttons with the same timing.

Here's a quick rundown of which option is available during each type of knockdown:

Type of Knockdown	Normal Recovery	Back Recovery
Throw		
Command Throw		
Crush Counter		
Special Moves		
Sweep		
Critical Art		

It's worth noting that some Critical Arts cause a hard knockdown, which means neither Recovery is available in those instances.

To be sure, this is a lot of information to process. You've got to remember that both options are available to you, but also decipher which Recovery your opponent will use. These will definitely take a bit of getting used to because they look very similar and are both very quick.

It's important to be conscious of which Recovery you are using because some knockdown mix-ups work only with either Normal or Back Recovery, whereas others work with either.

Crush Counters

Crush Counters are a special type of Counterhit that is completely new to the Street Fighter series.

There are two types of Crush Counters: one that launches the opponent and puts them in juggle state; and one that keeps the opponent grounded, but causes a longer hitstun and spin-out state, allowing you to easily convert into a combo with some practice. Most characters have two heavy attacks that Crush Counter, though some have three.

To gain more insight into this new SF5 system, we'll use Ryu's Crush Counters. First, Crush Counter states are available in the following scenarios:

- When hitting the opponent's normal attacks during startup frames
- When hitting the opponent's backdash during startup frames
- When hitting the opponent's throws during startup frames
- When hitting the opponent in recovery frames after blocking a special move that has invincibility, like Shoryuken

Also, if you score a Counterhit with a sweep (cr. HK), or after blocking a special move with invincibility, it will count as a Crush Counter. Ryu especially benefits from this feature because it gives him time to fully charge a Denjin Hadoken, which will guard break a blocking opponent and leave him vulnerable to being pummeled by a bigger combo.

The key to maximizing "punish opportunities" is to master the appropriate Crush Counter punish after a blocked Reversal. Let's investigate.

Crush Counter #1: st. HP

Ryu's st. HP does 90 damage and 150 stun regularly. In the SF5 beta, its block advantage varied between +1 in Beta 2 and -2 in Beta 3.

However, if you land a st. HP as a Crush Counter, the damage increases to 108 and the stun increases to 180. This is an overall damage and stun increase of 20%.

Remember that the added effect of a Crush Counter st. HP puts the opponent into a juggle state, a juicy opportunity upon which Ryu can convert into more damage with a mid-screen Critical Art.

Additionally, cancelling into V-Trigger unlocks even more possibilities that don't require a fully stocked Critical Gauge, allowing him to juggle with HP Shoryuken or Hadoken.

Crush Counter #2: st. HK

Ryu's st. HK is his other Crush Counter and is better than st. HP in certain situations. It does 80 damage and 150 stun, but if you land a Crush Counter, it gets the same percentage increases that st. HP gets-- which amounts to 96 damage and 180 stun.

st. HK edges st. HP out in certain situations because it causes a ground spin-out state. (Recall that each character has a Crush Counter that juggles and one that causes a ground spin-out state.) Since st. HK doesn't juggle, it allows for more damaging combo opportunities without your needing to spend three bars on Critical Art, or needing V-Trigger to juggle.

However, the downside to using st. HK when fishing for a Crush Counter is that the hitbox is pretty high, making it susceptible to being hit by low attacks.

It will probably take some time for you to get used to recognizing the situations where you can Crush Counter, as well as practicing reacting to them and converting into an appropriate combo. The training mode section will have an in-depth practical section that includes exercises on how to improve your Crush Counter abilities.

LEARNING THE GAME THROUGH RYU'S EYES

I stand by my belief that the game's engine is modeled after Ryu's character.

Since the beginning of Street Fighter, Ryu was the central character around which every game's system in the franchise was built. All the mechanics, features, match-ups, design philosophies, and systems were created with Ryu as the foundation. This means that by learning Ryu you are learning the game itself.

My previous book, *Simplifying Street Fighter*, already thoroughly went into Ryu's mechanics in SF4. If you haven't read it, this section will be very useful for you. If you have, feel free to skip this section.

I know what you're thinking. "But gootecks, Ryu is booooring and everyone plays him! I don't want to be like everybody else!"

That's fine, I get it. You might think Ryu is boring, and yeah, he might not be the most exciting character, but this is not a guide to being an exciting player. This is a guide to learning SF5 and what's necessary to be *good*. Like it or not, playing Ryu is the most effective way to learn, and gradually, build a solid set of fundamentals that will carry over to other characters.

It's also helpful to keep in mind that just because you are learning the game with Ryu doesn't mean you must be a Ryu player forever, though not that that's even a bad thing. Look at the shining examples of dedicated, world-class Ryu players like Daigo, Alex Valle, and John Choi. These guys are not only some of the greatest Ryu players of all time, but some of the greatest Street Fighter players of all time.

Do you still think you're too good to learn the same character that these guys have used to hone their craft and build their fighting game careers on?

I didn't think so.

So, please bear with me and continue with an open mind.

What's the Same and What's New?

Experienced players already know what's up, but Ryu's secret sauce is worth mentioning for the beginners out there.

Let's start with Ryu's general game plan, which is largely unchanged since the early days of Street Fighter II: World Warrior: apply pressure safely with Hadokens and pokes, and anti-air 'em when they jump at you with Shoryuken.

Certainly there are tons of nuances and options to consider based on the character matchup and opponent you are fighting, but that's the gist of it. Use this basic game plan as the foundation for your own Ryu.

Now, let's take a quick look at Ryu's moveset to see what's new, different, and similar to his SF4 iteration.

Move	Changes
Hadoken	Largely unchanged.
Shoryuken	Largely unchanged.
Tatsumaki	HK puts you behind the opponent.
LP	Makes contact when the opponent is crouching and can be used as anti-air with a cross-under mix-up opportunity.
MP	Extremely useful now and links into cr. MP, cr. HP, and itself.
HP	No longer special cancellable. Crush Counter causes juggle state and can be canceled into V-Trigger.
LK	Angled down instead of up as it was in SF4 and is special cancellable.
MK	Seems like a better mid-range poke than it was before.
HK	Crush Counter causes ground spin-out state. Whiffs against crouching opponents.
F+HP	Largely unchanged but now -2 on block instead of 0.
F+MP	Largely unchanged.
B+HK	Completely new move.
cr. LP	No longer able to link into medium attacks. Still chainable into another LP or LK.
cr. MP	Significantly improved hitbox and utility.
cr. HP	Largely unchanged, but linkable after close st. MP.
cr. LK	+1 on block, but 1-frame slower than st. LP which also hits low. No longer able to link into medium attacks. Generally not that useful anymore.
cr. MK	Seemingly shorter range than in SF4. No longer as useful because cr. MK xx Hadoken is largely unsafe.
cr. HK	Moves slightly forward now and seems to have slower startup. It DEFINITELY has longer recovery on block.

j. LP	Largely unchanged.
j. MP	Largely unchanged; and still does two hits and juggles.
j. HP	Largely unchanged.
j. LK	Largely unchanged and still crosses up.
j. MK	Largely unchanged and still crosses up.
j. HK	Can make contact closer to the ground for seemingly deeper jump-ins.

Although Ryu's moveset seems mostly the same on the surface, it is deceptively nuanced. You will also notice that there are no close normals--only standing and crouching. This removal of rarely used close normals is consistent with the rest of the cast and the game, and seems to be a conscious design choice to simplify the game.

First, his staple blockstring, cr. MK xx Hadoken, is no longer as effective because of Hadoken's long recovery. It is unsafe at close ranges and is easily punished by competent opponents. In other words, you cannot just throw out Hadokens if you're not sure they will hit.

Another thing to note is that neither of his crouching light attacks links into medium attacks. In other words, the days of cr. LP, cr. LP, cr. MP xx Hadoken are gone. In fact, you might as well try to forget this even existed in SF4 because lights-into-medium attacks have pretty much been removed from the game.

Fortunately, you can still combo two lights into a special move, but this is not major damage and does not pay off in the same way that landing a single light attack once would have in SF4.

Furthermore, the strategy of zoning with long-range Hadokens against many characters is no longer effective due to the V-Skill system. For instance, characters like M. Bison, Nash, and Zangief have V-Skill parries that absorb Hadokens easily, making longer range Hadokens nearly useless. This change forces Ryu to play up close against many characters.

The good news is that Ryu has a parry as well, so you're going to need to learn to use it wisely.

Standing Medium Punch (st. MP)

The most significant change to his normal moveset is st. MP. In SF4 and most other Street Fighter games, Ryu's st. MP had low damage and a short hitbox that rendered it nearly useless and overall inferior to cr. MK.

In SF5, st. MP is the gateway to a lot of his offense. After all, it is the beginning of his target combo (st. MP, st. HP, st. HK), and it links into cr. HP at point blank range and cr. MP if you're a bit further.

Analyzing this a bit further, we see that...

- If you score a Counterhit with st. MP, you have enough time to easily hit-confirm into the rest of his target combo, st. HP, st. HK unless they are crouching, in which case the st. HK whiffs.
- st. MP, cr. MP xx Hadoken is a pretty solid blockstring that builds a nice chunk of meter and also gives you enough pushback to usually be safe after the Hadoken.
- It also packs quite a lot of hitstun, giving you ample time to confirm into your next move. And now with its improved hitbox, it can also hit crouching opponents from max range.

Standing Light Kick (st. LK)

Before, st. LK was almost always nearly useless. Sure, it could be used as a weak anti-air, but there was little use for it outside of very specific situations.

With its new and improved range, angle, and cancellability, st. LK is now similar to Sagat's st. LK in SF4. You can use st. LK xx Hadoken at max range for a relatively safe blockstring at mid-screen. This is a useful tool against a lot of opponents because it allows you to be more mobile in the neutral game, while still forcing the opponent to block Hadokens from a usually safe range.

Standing Light Punch (st. LP)

This move now resembles his 3rd Strike iteration, when it had a hitbox that was angled high enough to be used as an anti-air. If you anti-air with st. LP and follow up with a dash, you can perform a tricky cross-under that is likely to hit most opponents at least once before they catch on.

The st. LP is also his only 3-frame ground normal, *and* it hits crouching opponents AND is +2 on block. These make this move ideal for tick throws, which used to be ideal when starting from a cr. LK, cr. LP blockstring in SF4. Now, two light attacks will push the opponent too far outside of your throw's reach.

Throws (LP+LK)

Speaking of throws, his throws *appear* to be the same, but tweaks to the game's engine have changed them significantly.

Now that you can't do hard knockdowns after throws, you can assume that most players will almost always Normal Recovery after being thrown. This means you don't have the time to dash in and set up your next mix-up as you did in SF4.

In fact, the same scenario leaves you at a disadvantage of -1 since throws give you +15 on a Quick Rise knockdown, but your dash is 16 frames. And you can forget about setting anything up after a back throw, which leaves you at -2.

The upsides are that forward throw does 170 stun and back throw does 200 stun--a nice chunk of more damage than in SF4.

V-Skill (Parry)

Ryu's parry is definitely one of the strongest aspects of his game. If you anticipate any attack coming, such as a projectile from far away, you can press MP+MK together and Ryu will deflect the attack. Doing this also opens a window for a counterattack and builds V-Gauge. Note, however, that you must parry 12 projectiles in order to build one V-Gauge stock. By comparison, you need to block 15 projectiles without parrying to build one V-Gauge stock. (It's a slow road to V-Trigger.)

On the bright side, parrying can be extremely rewarding when you nail it, but it can be extremely frustrating when you screw up the timing, or make an incorrect read. It may seem like an all-powerful technique if you can perfect the timing on multi-hitting attacks, but there is one big drawback. Before we get to that, I want to talk about parrying in 3rd Strike.

Parrying was a universal technique in 3rd Strike that had a lower risk than it currently does in SF5. You performed it by tapping forward for a high or mid attack, or down for a low attack. If the opponent didn't attack, you'd simply take a tiny step forward or crouch for a split second; there was no startup or recovery animation.

In SF5, parrying for Ryu and others now carries a higher element of risk because there *are* startup and recovery frames. So, you must start parrying sooner than you needed to in 3rd Strike. Furthermore, getting hit during recovery results in a Counterhit state.

If Ryu parries too early or the opponent chooses not to attack at all, the opponent can land a huge Crush Counter combo by baiting a parry. In order to avoid this fate, you must be absolutely sure that the opponent will attack at that precise moment, or you will take a huge risk for what could end up being a relatively small reward.

Here are some general rules of thumb for Ryu's parry:

- Projectiles from half-screen or further should be relatively easy to parry with practice.
- Parrying multi-hit moves like EX Hadokens should also become relatively easier with practice, but you cannot parry the first hit, then block the second due to the recovery frames of the parry. Once you commit to parrying a multi-hit move, you must parry all hits because of the recovery frames.
- Parrying jump-in attacks usually isn't worth the risk because the opponent will likely be able to block your counterattack.
- Parrying light attacks usually won't allow you to counterattack due to the recovery frames, so light attacks are likely not worth the risk either.
- Wake-up parrying is extremely risky if the opponent is near you because you could eat a huge Crush Counter combo during recovery.
- It is possible to parry in-between hits of many blockstrings, but it's also very risky if you mistime it. Also, there could be little reward for parrying many light and medium normals at different distances.

One trick that you can use to make parrying easier is to bind the command (MP+MK) to a button, like PPP or KKK button. As a long-time 3rd Strike player (read: competent parrier), I find it much easier to tap one button to parry instead of pressing two at the same time. That way, I feel that less can go wrong.

V-Trigger (Denjin Mode)

We finally get to the part of Ryu's game that separates him the most from his SF4 iteration: his V-Trigger. Activated by pressing HP+HK, Ryu's V-Trigger gives him a boost in certain moves: increases stun on his punches, increases speed and stun on Hadoken, and increases damage and stun on his Shoryuken.

Sounds good, right? Let's take a closer look.

Stun Boost

After activating Denjin Mode, all of Ryu's punches gain an additional 30 stun on hit. (This could change in the final build, but it's safe to say that he will likely retain his stun power-up.) This affects his standing LP, MP, HP stun values, increasing them from 70/100/150 to 100/130/180, respectively.

At first, you may not think this increase is a big deal, but when you take a look at the stun values from a percentage increase, you'll realize it's pretty significant for light attacks.

Move	Normal Damage	V-Trigger Damage	Percentage Increase	Normal Stun	V-Trigger Stun	Percentage Increase
st. LP/cr. LP	30	30	0%	70	100	42.86%
st. MP/cr. MP	60	60	0%	100	130	30%
st. HP/cr. HP	90/80	90/80	0%	150	180	20%
F+MP	60	60	0%	100	130	30%
st. HP Crush Counter	108	108	0%	180	216	20%
Hadoken LP	60	80	33.33%	100	150	50%
Hadoken MP	60	80	33.33%	100	150	50%
Hadoken HP	60	80	33.33%	100	150	50%
Hadoken EX	100	120	20%	150	200	33.33%
Shoryuken LP	100	120	20%	150	200	33.33%
Shoryuken MP	120	140	16.67%	150	200	33.33%
Shoryuken HP	140	160	14.29%	200	250	25%
Shoryuken EX	160	180	12.5%	200	250	25%

By looking at this color-coded chart, we can see that the best “value” is in the LP, MP, HP Hadokens. Each gets a 33.33% damage increase and a 50% stun increase.

EX Hadoken and LP/MP Shoryuken all get 33.33% stun boosts, which is significant as well. Generally, LP Shoryuken is not that useful, but MP Shoryuken is definitely useful as an anti-air.

Also, his st. LP gives him a whopping 100 stun while in V-Trigger and deals the same amount of stun as st. MP does without V-Trigger active. Two chained LPs (standing or crouching) deals 190 stun with scaling, which is nearly 20% of the average character’s stun gauge. This makes it significantly easier to land that final hit or two and dizzy the opponent.

Denjin Hadokens (D, DF, F+P)

This is where things get really interesting for Ryu. For those that have played 3rd Strike, you’re probably very familiar with Ryu’s Super Art III, the Denjin Hadoken. This was an unblockable, potentially game-changing Super Combo that could be charged by holding the punch button down and wiggling the stick.

Once fully charged, the Denjin Hadoken would deal enough stun to dizzy the opponent. The only way out of it was to parry all five hits, or guess correctly and jump over it. With proper meaty timing, especially in the corner, 3rd Strike Ryu’s Denjin Hadoken had huge comeback potential.

In SF5, Denjin Hadokens are similar, but with some important differences.

First off, when Ryu activates V-Trigger, all of his Hadokens become much faster. Like in 3rd Strike, they can be charged by holding down the same punch button you used to throw them. The longer you charge the Hadoken, the more hits it will do--up to three. When you release the button, the Hadoken is released.

Fully charged Hadokens cause a brief guard break if the opponent is blocking, allowing you to convert into a combo if you’re close enough.

Holding any of the punch buttons for about half a second adds an extra hit to the Hadoken. They cannot be held indefinitely, however, and once they reach their full charge, the Hadoken is released even if you are still holding the button.

If you charge LP, MP, or HP Hadoken for two hits, they all travel at the same speed. The advantage of using charged EX Hadokens is that it reaches a full charge faster than the other strengths.

But the problem with charging the Hadokens and going for a guard break is that even though charging might seem fast, it actually takes quite a long time in an actual match and leaves you vulnerable to jump-ins and other attacks while you’re still charging the Hadoken.

Since there are very few hard knockdowns in SF5, trying to time a meaty, fully-charged Denjin Hadoken on the opponent’s wake-up will give your opponent enough time to jump and counter- attack while you’re still in recovery, or charging.

Considering the things I mentioned, you’ll realize fully charged Denjin Hadokens are significantly less useful than they might appear.

Since these guard breaks are pretty hard to come by, there is another option available: his Critical Art. When Ryu has V-Trigger active, his Critical Art guard breaks on block. Unfortunately, unless you have them cornered, this guard break puts you too far away to convert into more damage.

However, if you have them cornered and manage to get them to block your Critical Art with V-Trigger active, you can convert into his Target Combo for an easy additional 170 damage. According to his Beta 3 frame data, he is +8 on the guard break after Critical Art.

This might seem pretty good, but based on the resource cost and risk of getting hit by a wake-up Reversal, this could be risky depending on the situation. It's also worth mentioning that using Critical Art (whether it hits, is blocked, or whiffs) immediately ends the V-Trigger state.

I'm sure there will be some really good Denjin setups discovered in time, but right now that's beyond the scope of this book.

General V-Trigger Strategy

When you're first starting out with Ryu in SF5, it can be easy to forget that you have the V-Gauge to work with. That's why I recommend keeping an eye on it and activating immediately when your V-Gauge is full.

Obviously, such a "run-and-gun" strategy is not a long-term recipe for success, but at least it'll get you into the habit of keeping an eye on your V-Gauge and finding different ways to use it. Dying with a fully stocked V-Gauge means you missed out on opportunities to use V-Trigger and V-Reversal. Plus, you're dead.

Here are the main scenarios in which you could activate V-Trigger:

- In the neutral game when you and your opponent are standing
- After a normal attack, inside and outside of combos (Ryu can't cancel any specials into V-Trigger)
- By cancelling a normal attack when the opponent is in blockstun
- After a hard or soft knockdown

Now to go over each in more detail.

Activating in the Neutral Game

You'll find that against many opponents activating V-Trigger in the neutral game immediately shifts the momentum. This is because Denjin Hadokens can be very intimidating to a lot of players. It can cause opponents to pause for a moment and stop attacking, which is sometimes all you need in order to turn the tide in your favor.

If you already have the life lead and/or screen position advantage, activating V-Trigger can allow you to increase your lead through intimidation and careful use of uncharged and half-charged Denjin Hadokens.

In many ways, V-Triggered Ryu follows much of the same game plan as he does when V-Trigger is not active: apply pressure with Hadokens and anti-air with Shoryuken when they jump.

Remember that your Shoryukens do additional damage and stun when V-Trigger is active. MP Shoryuken, as it was in SF4, is likely to be the one with the most startup invincibility, making it your reliable go-to antiair. It's worth noting that HP Shoryuken can still be used if timed correctly when in V-Trigger.

"But why risk it?" you might be asking.

Well, if you anti-air and score a Counterhit, the HP Shoryuken does 192 damage and a whopping 300 stun! That's as much stun as any of the fully-charged Denjin Hadokens. The EX Shoryuken doesn't do 300 stun on Counterhit possibly due to stun scaling on the second hit of the Shoryuken. This makes HP Shoryuken an extremely appealing anti-air when V-Trigger is active...but only if you manage to get your opponent to jump at you in the first place.

There's a way, of course.

Since his Hadoken is significantly faster with many variations during an active V-Trigger, his Fireball game becomes harder to deal with. Remember that light, medium, heavy, and EX versions all have different

speeds, and charging any of them for a moment can throw off their reaction.

As I mentioned earlier, fully charged Hadokens have a really long startup so they may not be all that useful in numerous situations, but the options are there. You might be able to find ways to use them that have not yet been discovered.

The reason why the additional Hadoken speeds are important is that when V-Trigger is active, the recovery on all Hadokens is reduced as well. This means that you can throw Hadokens at ranges that wouldn't be safe otherwise, and therefore bait opponents to jump at you. When they do, they get hit by a V-Trigger HP Shoryuken that has the possibility of additional Counterhit damage and stun.

After A Normal Attack

Every normal in Ryu's arsenal can be cancelled into V-Trigger, but none of his specials shares this ability.

So, there are lots of combos that are only possible while V-Trigger is active. It also means that you can activate V-Trigger even if the opponent is blocking. We'll get into more V-Trigger combos in a later section, so all you need to know right now is that activating mid-combo is an important part of Ryu's game.

Additionally, activating while the opponent is in blockstun can be useful to apply pressure with Denjin Hadokens and bait them into jumping.

After a Knockdown

Activating V-Trigger off a knockdown can vary in usefulness depending on whether it was a hard or soft knockdown. To my knowledge, Ryu's only hard knockdown is a Crush Counter sweep (cr. HK). As I mentioned before, this has the possibility of guard breaking Denjin Hadoken setups, which, to my knowledge, have not yet been fully explored. Soft knockdowns are far more common anyway.

So, one possible use for V-Trigger is right after an attempted sweep, since any normal can be cancelled into V-Trigger. You can cancel your sweep into V-Trigger to essentially make the sweep safe because his sweep has a really long recovery. This is nowhere as good as activating V-Trigger mid-combo for extra damage, but it is possible and can be useful in some situations.

Wrapping it up, I think you have a pretty good head start on Ryu's tactics and abilities. I strongly believe that learning Ryu is the most effective way to learn the game and this investment early on will pay dividends in the long run, even if you decide to switch to a different character once you have a solid foundation.

Since Ryu is so well-rounded, he makes a strong addition to any player's character roster since he can cover some unfavorable matchups your future main character might have. He's also the most commonly picked character, so being well-versed in your most common opponent is also a smart choice.

Now let's shift gears and talk about developing additional characters.

WHY ONE CHARACTER IS NOT ENOUGH ANYMORE

If Street Fighter 4 taught us anything, it's the value of being able to play multiple characters at a high level.

There was no undisputed, single "strongest character" in the game because every character, even the ones that were widely considered to be S-Tier, the best, had bad match-ups, or characters that they were weaker against. This was an intentional part of the developer's design choice in order to establish some degree of balance, so that no one character can be clearly a cut above the rest. Not surprisingly, SF5 follows suit.

There will always be bad match-ups, but that's a good thing because it forces growth as a player.

One school of thought is that you can (and should) learn your bad match-ups to shift into the mindset that will make you a stronger player. Every match-up, no matter how disadvantaged it may seem to you, can be overcome with research, discipline, patience, and effort. This is why many of the "old school" players can be so strong. They've developed this important mindset from the days of arcades. I, on the other hand, used to stubbornly stick to one or two characters because that was the thing to do back then.

Times have changed a lot. The online world has made it possible to train with multiple characters and train with anyone in the world.

Back then, your character was seen as an extension of you, the player, and so a lot of value was placed on character loyalty. At my home arcade, Family Fun Arcade in Granada Hills, CA (RIP), playing with your best character was a way to earn respect amongst your peers. As a result, players strived to be the best in their area with one character. (Plus, when you won a game, you couldn't change your character in the character select screen.)

My mentality was that any time spent learning other characters was better spent working on improving my Urien (preferred character at the time) skills. I continued to think this way with the introduction of Street Fighter 4 and Balrog. I stuck with Balrog for a long time until finally switching to Rose in Super Street Fighter 4. But even then, I still occasionally used Balrog as a secondary and didn't take the time to learn more of the cast.

Simply put, I learned first-hand that this arcade mentality is no longer effective in the present day fighting game environment. To be honest, I couldn't keep up. I see now where I went wrong. The arcade release had come out months before the console release, with wait times ranging from 30-60 minutes due to so many other players and only a few arcade machines.

Without being able to practice at home with training mode, there was very little opportunity for exploring different attacks and strategies, and there was even less room for exploring new and unfamiliar characters.

Nowadays, everyone is starting SF5 at home with training mode. We are free to explore any and all characters to whatever degree that our time, drive, and abilities would allow.

Benefits of Learning Additional Characters

I wish someone had made me understand the benefits of learning more characters, as I would have been a stronger player in both 3rd Strike and SF4. So, don't make the same mistake I did. Learn more than your favorite character. Way more.

The most obvious benefit is that you know the pros and cons of multiple characters and can deal with opponents' characters appropriately by swapping out a main character for an alternate if there's a bad match-up. (This doesn't apply in a one-game Ranked Match scenario, but it certainly applies in tournament and in-person matches.) For now in SF5, it's hard to say what the bad match-ups will be, but rest assured there *will be* some!

The benefit of having a secondary or tertiary character in your arsenal is that they cover the weaknesses of your main character. This can be a key component to winning more matches.

For instance, in SF4, Guile is generally considered a difficult match-up for M. Bison (Dictator) due to Bison's floaty jump and difficulty in dealing with projectiles. Guile's short recovery time on his Sonic Boom and extremely effective anti-airs can make it near impossible for Bison to approach. Since Bison has no projectile or practical way of doing damage from long range, especially without meter, he is at a disadvantage and the Bison player is likely to lose to a Guile player of a similar skill level.

If, however, the Bison player learned Rose as a secondary, he would have a contingency plan in case he runs into a Guile player at a tournament, arcade, or wherever. Rose generally shuts down Guile's Sonic Boom game pretty effectively by absorbing or reflecting with Soul Reflect, and she can easily anti-air his floaty jumps. So, if the Bison player has a competent pocket Rose, he has a stronger chance of winning.

In addition to complementing the weaknesses of your character in bad match-ups, learning more characters simply provides more subtle, hidden benefits, like learning their strengths and weaknesses. This isn't useful only for playing the character well, but also for when you're playing *against* the character as well.

First-hand experience of using a character gives you a major advantage when fighting against the character online, in person, and in tournaments. Essentially, you have the benefit of understanding both ends of the match-up: your own character and your opponent's. You may know the tendencies, what the opponent is likely to do in certain situations, and can properly come up with ways to bait and dismantle your opponent's offense or defense.

I don't blame you for not initially having the desire or time to master every character, but you'd be surprised by how much you can learn about a character in just a small amount of hands-on time. That knowledge directly correlates to having an easier time fighting that character in a real match.

Imagine in SF5 that your main character is Karin and your opponent in a match is Ryu. Based on your experience with reading this book (AND IMPLEMENTING THE EXERCISES, DAMMIT), you have a fair amount of knowledge about what Ryu is capable of, what he is likely to do, and what his game plan is. But does your opponent know much about Karin? If not, the match is already stacked in your favor--assuming, of course, that both you and your opponent are equally skilled in fundamentals and decision-making.

One of my favorite benefits of learning multiple characters is more social in nature. You are more easily able to connect with other players and discuss strategies and match-ups. Whether you're talking with a top player at a tournament or just another player in your circle, being competent with as many characters as possible can make it easier to grow your own knowledge base via information trading with more players.

Epiphanies can suddenly strike while conversing with other players. Maybe they share a tip or strategy

about their own character, which in turn, can be applied to your own characters and game. Sounds good, right? But you miss out on this benefit by not taking the time to learn more characters and getting into the many conversations that can lead to breakthroughs in your own game.

Similarly, learning as many characters as possible allows you to watch matches more actively and learn more from them. It's simply a part of being a strong player. Whether you're stream monstering at home, waiting for your turn to play next on the couch, or waiting for your next tournament match, you're going to be watching a lot of matches, especially if you're taking SF5 seriously.

If you know how to play at least one of the characters in any match you watch, you can put yourself into the mind of that player and think about what you would have done in different situations. In the process, you'll likely discover new ways to use familiar moves and strategies.

On the other hand, if you don't know what's going on, the nuances of the match can easily go over your head if you're unfamiliar with the characters' options in different situations. You'll likely still know where the major turning points of the match are, but you won't have a good grasp on where each player could have made different decisions to affect the outcome and what these adjustments could have been.

Now that it's clear you *should* learn more characters, you should aim for competency with every character in order to truly be a well-rounded player. What competency means for you is an individual choice, but take it from me, a little bit goes a long way. Just think of all the SF4 Evo champions:

- Daigo
- Fuudo
- Infiltration
- Xian
- Luffy
- Momochi

Do you think that they would be able to beat practically any casual SF4 player with a random select? Of course they would, because they've taken the time to learn at least the basics of each character and have strong fundamentals.

Infiltration: Master of the Entire Cast

There's one player in particular whom I want to use as an exemplary model. His name is Infiltration. He has taken his wide knowledge of the cast to a whole new level.

In Evo 2013, he was on the verge of being eliminated by PR Balrog, another great player. PR Balrog was up 2-1 in a first to three set, with the winner being able to advance to the Losers Finals and clinch a Top 3 finish.

PR Balrog was using his staple character, Balrog, whereas Infiltration had been using Akuma, the character with which he won both Evo 2012 and Capcom Cup 2012. As Infiltration thought about what adjustments he needed to make before the fifth and final game of the set, he went back to the character select screen.

At the risk of sounding like a BuzzFeed article: what he did next shocked the world.

He picked Hakan.

For those not too familiar with this character and how Hakan stacks up against the rest of the SF4 cast, he's generally considered to be one of the worst characters in the game, with poor normals, relatively bad mobility, and weak anti-air options. However, when he is oiled up, he becomes one of the strongest characters in the game.

Generally, Balrog struggles against grapplers (in my opinion) due to his poor wake-up options and their

ability to punish blocked dash punches. To further highlight Infiltration's odd character choice, Hakan is one of the most infrequently used characters in the game while Balrog is one of the most frequently used.

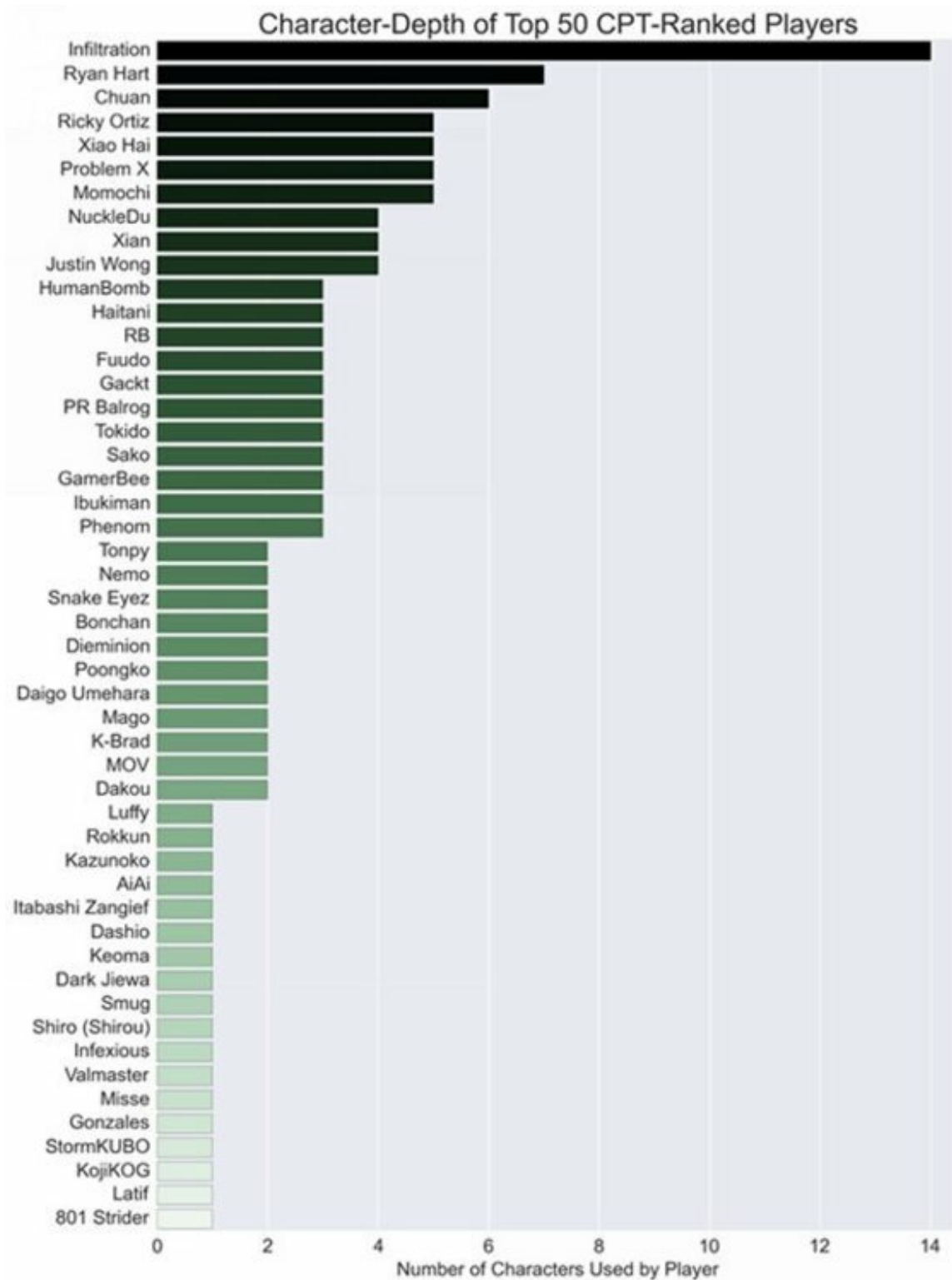
Take the time to [watch the match some time](#). You'll see that Infiltration was able to catch PR Balrog with Ultra 1 on two separate occasions: one as a Dash Punch punish; the other as a Dash Punch bait. Eventually, Infiltration came out on top and eliminated PR Balrog in one of the best matches in Street Fighter history.

Flash forward two years to Evo 2015, and Infiltration would again surprise the world onstage during Top 8 when he was down 2-1 against GamerBee in Losers Finals. He went to the character select screen and hovered over Rolento to gauge the crowd's reaction. The crowd (and GamerBee, unsurprisingly) was not in favor of a Rolento pick, likely because Rolento is considered a cheap character who lacks the "excitement" of Infiltration's other characters, like Decapre.

Finally, he settled with Juri to go against GamerBee's Elena because he felt that even if he'd won with Rolento, GamerBee would have switched to Adon and made things more difficult.

Infiltration lost the match. In an [interview with Core-A Gaming](#), he said he still considered it a success because he had had a great match with GamerBee and also had been able to test his Evil Ryu against Momochi and other players. He therefore had been able to learn more about his own personal strengths and weaknesses.

I don't think there's ever been another player who has used so many different characters on stream at Evo. He's used Evil Ryu, Abel, Elena, Juri, Decapre, and Chun Li--all at a level that most players never get to with their main character. In fact, according to [@meowklaski's Character-Depth Graph of the Top 50 Ranked CPT players](#)--which tallies the number of characters each player used throughout the season--Infiltration used a staggering 14 different characters throughout the 2015 season.



Credit: [@meowklaski](#)

The runner-up was Ryan Hart who used *only* seven. The *only* here is emphasized in a sarcastic manner to illustrate that most of the Top 50 players in 2015 used three or fewer characters within a cast of 45.

In particularly memorable moment in 2015, Infiltration went up against Snake Eyez in the Grand Finals of [First Attack in Puerto Rico](#), a Capcom Pro Tour Ranking event. Snake Eyez picked his trademark Zangief and Infiltration (again) shocked the world by picking Hugo.

How fitting that he would use pro wrestling to fight pro wrestling.

The player Snake Eyez is used to being the aggressor and bullying his opponents with his neutral game

and long Spinning Piledriver (SPD) range.

However, when Infiltration picked Hugo, another grappler who's generally considered to be on the bottom end of the tier spectrum, Snake Eyez was likely as surprised as everyone else. Although Infiltration made a few execution errors and missed a few opportunities to punish in the first set, he stuck with Hugo in the second set after barely losing the first set in the last round of the last game.

In the final game of the second set, he finished the last round with a convincing win, using a character no one had ever seen him play before, and secured even more Capcom Pro Tour Ranking Points, which led up to Capcom Cup 2015.

Admittedly, I don't know enough about Zangief or Hugo to point out exactly how Infiltration won (see, you need to learn more characters to know!), but I'd wager that Infiltration benefited greatly in these pocket character scenarios due to the following factors:

- **The element of surprise:** His opponents were taken aback by his character choices in high-pressure situations.
- **Unfamiliarity with the characters:** Hakan, Hugo, and Juri are relatively obscure characters that you don't see very often in tournament play.
- **Strong knowledge of the opponent's characters:** Balrog, Zangief, and Adon are all popular characters that he'd fought plenty of times before. Elena is a character Infiltration also plays, so he would know her strengths and weaknesses.

Basically, I'm just driving home the point that taking the time to learn characters helps you become a formidable player. Infiltration's dedication to learning most, if not all, of the cast at a high level was a great investment of his time and paid off in spades throughout his SF4 career. He proved that he could be a force to be reckoned with, whether or not he used Akuma, the character with which he used to dominate in 2012.

Lowering the Execution Barrier

As I mentioned earlier, SF5 now has additional input leniency, making execution a lot less dependent on precision (and ungodly amounts of practice). In previous games like SF4 and 3rd Strike, the steeper learning curve was owed in part to mastering the high execution barrier that was required to compete at a high level.

Many essential combos for many characters in SF4 had extremely small timing windows, including multiple 1- and 2-frame links. In order to be able to pull off these combos consistently in high-pressure situations, a player had to spend untold amounts of time practicing their execution and reactions.

In SF5, these tight timing windows have been reduced, thanks to the addition of a 3-frame input buffer. This means that your timing can be off by as much as three frames, or 1/20th of a second, and the game will still register the button press correctly. Now you can spend more time on your strategies for matchups and less time practicing tight links and combos (thanks, Capcom!). Of course, this was a conscious design choice on Capcom's part.

Peter "Combofiend" Rosas, Associate Producer of SF5, said during the [Evo 2015 Capcom Panel](#):

"Players right now, they seem to be able to do all the combos that are technically one-frame links (and I know which ones they are because I actually look at the frame data in my office). They're not having a hard time doing it. That, to me, seems like it's fine, because at the end of the day we want people to access damage, combos, things like that so that they can concentrate more on how they approach the matchup against a person versus how they approach the character. We don't want them to fight the game, we want them to fight the other person."

For most veteran players and players in general, it's now easier to learn more characters because you don't have to invest so much time practicing their combos. Once you learn the first and have practiced for

a bit, you shouldn't need to dedicate a large amount of time strictly to execution practice.

The input buffer should also help when playing online and/or under sub-optimal hardware conditions (see my section on hardware to understand what I mean). This change should come as a relief to many players who once put up with online or monitor lag, as lag was a major hindrance to tight combos in SF4. That, combined with each platform running at a slightly different speed and one's own imperfect execution, led to untold numbers of rounds lost and endless frustration.

Ultimately, this all means that after you learn the game with Ryu, it should be straightforward and much easier to play other characters in high-pressure situations since you no longer have to spend as much time practicing execution.

Of course, there's an efficient and a less efficient way to learn other characters. Luckily, Uncle gootecks is going to share this framework with you next.

A PRACTICAL FRAMEWORK FOR LEARNING CHARACTERS

Though I do recommend learning Ryu first and use Ryu for nearly example in this book, eventually you'll need to learn other characters in order to keep up with the competition.

Here's a practical framework for learning characters from the ground up yourself without needing to rely on forums, videos, or other guides to lay it all out for you. You can certainly use these resources if you'd like and there are plenty available, however, if you're the type of person that learns by doing, this method may be more effective.

1. Start with the benefits and possibilities your V-Trigger affords and work backwards.
2. Figure out what your character's V-Skill does and how it can build your V-Gauge
3. Learn each of your character's normals including:
 - what it's maximum range is
 - whether it's cancelable into special moves
 - what they could be used for in a real match
 - whether it could be used as an anti-air
 - having a basic understanding of the frame data
4. Figure out which of your normals are Crush Counters.
5. Learn your character's maximum throw range.
6. Learn each special move the same way you learn their normals.
7. Learn what each EX version of each special move does and think about how this could be used in a real match.
8. Learn what your Critical Art does and how it could be used in a real match.

Analyzing V-Trigger and Working Backwards

Since each character's V-Trigger is unique, the general game plan for each varies because of it. You must first figure out what a character's V-Trigger does and how it can be used in a real match. This is done by going into Training Mode, setting your V-Gauge to AutoRecover in Gauge Settings and then activating by pressing HP+HK.

Generally, whoever gets a full V-Gauge first usually has the advantage. That means we need to get to V-Trigger faster than the other player. So, what are the things we can do to more quickly build V-Trigger?

I discussed this previously in the section on V-Trigger, but in a nutshell: V-Trigger builds by taking damage, successfully using your V-Skill, and by landing Crush Counters. We'll focus on the last two since taking damage will happen on its own.

How to Successfully Use V-Skill

Each character's V-Skill usually falls into one of the following categories:

- Defensive: Ryu, Nash, M. Bison, Zangief
- Attack/movement: Ken, Chun Li, Cammy, Karin, Vega, Necalli, Rashid, Laura, Dhalsim
- Power-up/variable: R. Mika, Birdie, F.A.N.G

Characters with attack and power-up based V-Skills can generally build V-Gauge faster than characters with defensive or movement V-Skills. It sounds unfair, but the reason is within its mechanics. Movement V-Skills simply don't build V-Gauge on their own, and by virtue of how V-Skills work, defensive V-Skills require the opponent to attack *and* for you to properly time your V-Skill.

You can start to see that the practical situations of attack-based V-Skills outnumber defensive-type V-Skills, allowing them to build faster.

Building V-Gauge with Crush Counters

Once we figure out the best way to build meter with V-Skill, then we can figure out how to land a Crush Counter. Crush Counters are the other way to actively build V-Gauge, although some build more than others.

For example, Birdie's st. HK builds one stock of V-Gauge, while his F+HP builds only 1/2 stock by comparison.

This means that some Crush Counters net you the V-Gauge equivalent of a V-Reversal.

Interestingly, Crush Counters that build 1/2 V-stock for the attacker also build 1/2 for the opponent. But Crush Counters that build one V-Stock only build 1/2 or 3/4 V-Stock for the opponent.

For some characters, it can be a race to a filled V-Gauge to shut down the opponent's options. Take Zangief and Birdie's V-Triggers, for example. They both do a pretty good job of shutting down projectiles. The downside is that both of them are three-stock V-Triggers, making them difficult to activate in the early and mid-game.

Next, we need to know which Crush Counter to use in different situations since some launch and others keep the opponent grounded.

Using Ryu as an example, his st. HP launches, but unless you have V-Trigger, that's not going to be terribly easy to convert into big damage. On the other hand, his st. HK causes a ground spin-out state, making it much easier to convert to high damage without needing resources like EX or V-Trigger.

See the difference?

Let's analyze how we would land each of these in a real match. Get ready, it's about to get real nerdy.

- Ryu's st. HP is good as a meaty, when the opponent is getting up, for punishing backdashes and stopping back dashes.
- Ryu's st. HK is good as a punish after a blocked Reversal, or against a throw.

Now let's take a look at the frame data of each of these moves to see what we can learn about them. (**Note:** The frame data underwent changes throughout the beta period and will likely change periodically throughout the game's lifespan as well. So, keep in mind that nothing is set in stone, but learning how to use frame data still can be an important skillset to develop. Check the section on frame data for further details.)

- The startup of HP is 7; HK is 10. Three frames may not seem like a lot, but trust me, it is.
- Total frames of HP is 29 and HK is also 29.
- Block advantage of both HK and HP is -1, which means that you do not have frame advantage if either is blocked. .
- The frame data note that st. HP scores a knockdown and that HK gives you +16 on Counterhit. So, one Crush Counter knocks down while the other scores a ground spin-out state.
- Counterhit damage and stun are 108/180 for both HP and HK, respectively.

Now that we know more about the numbers behind these two important moves, let's see if there are any moves that might flow into them.

First, look at the startup frames of our standing and crouching normals and see what we can learn from these numbers.

Move	Startup	Block Advantage
stand LP	3	2
stand MP	5	1
stand HP	7	1
stand LK	4	-1
stand MK	8	-2
stand HK	10	-1
crouch LP	4	2
crouch MP	5	2
crouch HP	6	-10
crouch LK	4	1
crouch MK	6	-4
crouch HK	7	-11

* [Beta Frame Data from gilley](#).

Use the frame data to see if frame traps are possible into either Crush Counter.

st. LP is block advantage of 2. If we follow it immediately with st. HP, we leave a 5-frame gap that the opponent could use to hit us.

This gap is way too large for it to be effective because it loses to 3- and 4-frame light attacks as well as to throws, which start up in five frames.

In the early days of SF5, it's likely that you will be able to catch inexperienced players with this simple frame trap, however, as the game evolves and players improve, this will work less and less.

However, this simple introduction to frame data leads us to the next section on building offense: piecing together blockstrings.

How to Develop Blockstrings

A blockstring is a sequence of attacks that is used to accomplish the following:

- Build meter
- Convert into a combo if the opponent isn't blocking
- Leave the attacker safe from common attacks if the defender is blocking

The process of developing blockstrings can be complex, but I'll walk you through how I developed one with Ryu. Traditionally, in previous Street Fighter games, Ryu's blockstrings ended with a Hadoken; but in SF5, blocked Hadokens after a cr. MP or cr. MK are almost always easily punishable.

Let's see if we can find a blockstring that makes our Hadoken safe against most retaliating normals.

First, start by analyzing the normals that have the most block advantage.

For Ryu, they're st. LP, cr. LP, cr. MP because each is +2 on block. When I say a move is "+2 on block", I'm referring to a frame data table, such as the one above, where you can see the block advantage for the move is 2.

Now we need to explore each of these normals deeper (since each has the same block advantage) and figure out which is going to be most practical and useful in the most number of situations.

For starters, not every move will hit if the opponent is crouching. Some moves just have better ranges and hitboxes than others. (Here is where we need to utilize the dummy settings in training mode and set State to Crouch and Guard to All.)

So, let's start with st. LP since cr. LP is also on our list. The difference between st. LP and cr. LP is that st. LP is one frame faster on startup. In most instances, this is not a big deal, but when it comes to piecing together an offense, it is an important detail later on when we start to compare moves.

Continuing on, both st. LP and cr. LP hit if the opponent is blocking low. Because both st. LP and cr. LP have the same block advantage and can hit a crouching opponent, they are nearly equal--except st. LP is a frame faster. This slight difference makes it a better offense "starter".

If you try to see how many you can hit before you're pushed out of range, you'll find the max to be two. In other words, we can make the opponent block two st. LPs, even if they're crouching. That's a pretty good start to an offense! Keep that in mind, as we look at other normals with fast startup. At this point, we've done everything we can with our fastest normal.

Once we've found the best normal to initiate our blockstring, the next step is to find a normal that has a 2- or 3-frame gap to follow it. Since st. LP is +2, we can look at 4-frame and 5-frame normals to see what the possibilities are.

Ryu's 4-frame normals are st. LK, cr. LP, and cr. LK, so let's start with st. LK and cr. LK.

st. LK is -1 on Block and cr. LK is +1 on Block. Both will hit a crouching opponent, but the opponent must be blocking low in order to block cr. LK, giving it the edge in that regard.

However, only st. LK is special cancellable, making it a possibility for Hadoken pressure, or other combo opportunities. Right away, we can rule out cr. LK as the next possibility in our blockstring.

Remember that even at max distance Ryu can cancel st. LK into Hadoken, so this is a pretty solid blockstring.

It's worth noting that most blockstrings have gaps wherein the opponent can use a Reversal that has a fast startup (i.e. Shoryuken), likely hitting you before the Hadoken makes contact. However, this requires precise timing and is risky because if you were to get hit by it a few times, you're also likely to stop your blockstring short of the Hadoken. As a result, you bait out their Shoryuken and punish hard with a Crush Counter combo.

If you start this blockstring at point blank range, you are at the perfect range in which to whiff-punish most of their attacks.

If you encounter a mirror match, don't worry. If Ryu follows this blockstring with st. MK, it beats cr. HK and st. MK mid-screen. If he has the opposing Ryu in the corner, st. MK beats a lot of other pokes.

Okay, so far so good, but what if the opponent is blocking high? Well, since there aren't a lot of combos that start with low light attacks, there's no reason to be crouching. Ryu cannot do two st. LPs because the second one will whiff if the opponent is blocking high. Instead, you have to do st. LP, cr. LP, st. LK xx Hadoken because the cr. LP has more range than st. LP.

So, now we have a decent blockstring that works if the opponent is blocking high or low with a 2-frame gap between each normal.

Now let's look at Ryu's normals that have a 5-frame startup: st. MP and cr. MP. In this case, 5-frame moves are useful because they create a 3-frame gap, giving the opponent a slightly larger window in which to hit a button that would result in a Counterhit for us.

st. MP and cr. MP both do 60 damage and hit both crouching and standing opponents. If we begin with st. LP -> cr. LP, we can use either st. MP or cr. MP, both of which are cancellable into Hadoken.

However, if the opponent is blocking high, the st. MP will whiff. Then, this blockstring is no good.

Instead, since we're aiming for a 3-frame gap, let's cut out the cr. LP and go straight from st. LP to cr. MP or st. MP.

Remember that st. MP and cr. MP both have 5-frame startups, but cr. MP is +2 on block, whereas st. MP is only +1. Because we're cancelling both into Hadoken, the block advantage in this instance is largely irrelevant.

But if we look deeper, could we find a reason to use either st. MP or cr. MP over the other? It's always good to have certainty and know exactly WHY you are doing a specific move instead of randomly throwing out one or the other.

In this instance, the major difference between st. MP and cr. MP is that st. MP is the beginning of Ryu's Target Combo: st. MP, st. HP, st. HK. This puts st. MP in a major advantage over cr. MP because if the opponent hits a button or attempts a throw after blocking your st. LP, you'll score a Counterhit and can visually hit-confirm into the rest of the Target Combo.

And if the opponent blocks? Based on the last blockstring we developed, we know that st. LK is key due to its long range and cancellability.

Conveniently, with a 4-frame startup, it also leaves a 3-frame gap after st. MP...just in case the opponent presses a button.

Finally, we cancel the st. LK into Hadoken, and there we have it, folks. We have two generally safe blockstrings that we can now practice in warm-ups in training mode:

- st. LP, cr. LP, cr. MP xx Hadoken
- st. LP, st. MP, st. LK xx Hadoken (or replace st. LK with st. HP, st. HK if you score a Counterhit)

The first has a 2-frame gap which might be a bit overkill. The second has a 3-frame gap that makes it more likely to be practical and leads to way more damage if the st. MP scores a Counterhit.

Applying the Same Framework to Cammy

Let's see if we can apply the same framework with Ryu to another character known for strong frame traps. Enter Cammy.

- To start, EX Razor Slicer is +3 and st. LP is +3, and it's even possible to hit-confirm after. So does this mean this is a true blockstring?
- Next normals are st. LP and cr. LP. Both are +2 and have a 3-frame startup, so they're basically the same move--that is, both hit crouching and standing opponents.

- B+MP has a 4-frame startup, but is -1 on block, therefore making it less useful if we're not sure the opponent is going to block.
- cr. MP is her only 5-frame move, and seeing as how she has two moves that are functionally the same with the same frame data, this seems like an important move.
- Since LP (won't differentiate between st. LP and cr. LP from here on out) is +2 and has a fast startup, we can create a 3-frame gap any time we make someone block a LP. That's pretty darn good!

Okay, now we have our first blockstring: LP, LP, cr. MP (crouching or standing doesn't matter in this instance). Additionally, cr. MP also leaves her at +1 and is cancellable into any special move, so that makes this button quite a deal.

Furthermore, st. MP has a 6-frame startup but is +2 instead. After st. LP, you could do st. MP, which has a 4-frame gap and is long enough for an opponent to hit a button.

Let's test it out and make sure.

1. Start Training Mode and pick Cammy as Player 1 and Ryu as the dummy.
2. Go to Dummy Settings and Set Guard to *All*.
3. Go to Set Guard Recovery and then select *Recovery Slot 1*.
4. Record a st. LP immediately so that it's as though the dummy mashed st. LP.
5. Set Ryu's Guard Action Recovery Slot 1 to *On*.
6. Make Ryu block any attack. If he immediately presses LP afterwards, you did it right. If not, go back to Step 2 and try again until you get it right. This can take a few tries, so don't worry if you don't get it right away.

You'll see that if you press LP, then st. MP and you follow it up with cr. MP, you'll score a Counterhit. Similarly, if you press LP, then cr. MP, cr. MP, you'll also score a Counterhit.

Now we have ourselves another blockstring: LP, st. MP, cr. MP or LP, cr. MP, cr. MP

The first has a 4-frame gap while the second has a 3-frame gap. You wouldn't want to use LP -> st. MP against a character with a 3-frame normal, like Ryu's st. LP. Instead, you must use LP -> cr. MP because it only has a 3-frame gap.

After this blockstring, Cammy is left at the perfect range for cr. MK, which is also cancellable into Spiral Arrow. If you score a cr. MP Counterhit, you have enough time to visually hit-confirm with cr. MK so that you don't accidentally throw it out. Get the hang of it by setting the dummy to Crouch and guard to Random and practicing for a little while.

Now you must be wondering: Which Spiral Arrow should you do?

It's not an easy question to answer, as each one does different damage and leaves you at a different frame advantage. (Also, I don't consider myself a Cammy player so I could be totally off here, but at least it gives you some food for thought.)

To complicate matters further, you're left at a different frame advantage when you Back Recover. That's to say, there is a total of eight different recovery timings from Spiral Arrows! Here's a handy chart:

Spiral Arrow Strength	Knockdown	Frame Advantage	Forward Dash Frames	Net Frames
LK	Normal	25	16	9
LK	Back	30	16	14
MK	Normal	21	16	5
MK	Back	28	16	12
HK	Normal	22	16	6
HK	Back	27	16	11
EX	Normal	24	16	9
EX	Back	29	16	13

It's unlikely that we would use EX Spiral Arrows in a combo because it has a relatively low increase in damage, so let's not worry about it for now.

Here are the possible frame advantages in which we could find ourselves as the opponent wakes up from Spiral Arrow:

- 5
- 6
- 9
- 11
- 12
- 14

They look all over the board, but let's see if any of these numbers correspond to the startup frames of her other moves:

- 5-frames: cr. MP--of course!
- 6-frames: st. MP
- 9-frames: st. HK
- 11-frames: none, but F+HK is 12 frames
- 12-frames: F+HK
- 14-frames: EX Hooligan -> Cannon Strike

What this all boils down to is that if you get an opportunity to Spiral Arrow, you should use LK because it gives you the most frames, despite whether or not they Normal or Back Recovery. You can follow it up with EX Hooligan -> EX Dive Kick, which has block advantage. Yet you can't Crush Counter because it's too slow.

It seems to me that the real question is: how many options can you cover with one button? If you use LK, you have plenty of time to easily set up st. HK Crush Counter timing.

To sum this all up, if you use MK Spiral Arrow, you must use st. MP if they Normal Recovery, but F+HK is better if you think they'll Back Recover. If they low jab on Normal Recovery, you get hit out of F+HK. If they Back Recover and low jab, the F+HK will hit.

There you have it! It seems like LK is the best overall.

Now that we've applied this framework to Ryu and Cammy, you can adapt it to other characters and learn to build their offense in a systematic and efficient manner.

HOW TO READ FRAME DATA

Frame data are relatively complex. Most fighting game players have heard of or are slightly familiar with them, but are not totally sure how they work.

Simply put, frame data refer to the different numbers of, you guessed it, frames that every move in the game contains. Like most modern games, SF5 is built to run at 60 frames per second (fps). So, use that as a baseline to help with understanding the frames and moves better.

To begin, frame data are usually separated into several categories. Let's start by looking at a sample of Ryu's frame data from [gilley's beta frame data spreadsheet](#). Keep in mind that these data are from beta 2, so the values may change by the time you read this.

Move	Startup	Recovery	Total	Hitstop	Hit Advantage	Block Advantage
stand LP	3		11	8	4	2
stand MP	5		17	12	6	1
stand HP	7		29	15	1	1
stand LK	4		17	8	-1	-1
stand MK	8		26	12	2	-2
stand HK	10		29	15	4	-1
crouch LP	4		11	8	3	2
crouch MP	5		19	12	4	2
crouch HP	6		33	15	-7	-10
crouch LK	4		12	8	2	1
crouch MK	6		21	12	0	-4
crouch HK	7		30	15	KD	-11

Startup Frames

Startup frames refer to the number of frames required for a move to “start”, or come out. Moves with “fast” startups are generally light attacks. In SF4 and SF5, the fastest normal attacks have a 3-frame startup.

For a game that runs at 60 fps, three frames equate to 1/20th of a second--that’s pretty fast by anyone’s standards.

During your character’s attack startup frames, your character is vulnerable to getting hit by your opponent’s move. If the opponent hits an attack during its startup frames, he’ll score a Counterhit, which in turn, provides a 20% damage and stun boost, as well as an extra Counterhit-only hit advantage that allows him to convert to bigger damage. Crush Counters also count as Counterhits and provide even longer hit advantage states, such as juggle or a ground spin-out.

Active Frames

Active frames refer to the frames of the actual attack animation during which the attack can actually hit the opponent. Active frames follow startup frames and are usually at least as long as the startup frames.

Active frames are not listed in gilley's table just because gilley did not include them for whatever reason. However, that doesn't mean they should be ignored. You should learn what they mean in case you come across them in future frame data charts.

Recovery Frames

Following active frames, recovery frames refer to the animation frames of the attack during which it is retracting, or “finishing up”. You cannot block and are vulnerable to being hit while in recovery frames. In general, moves with long recovery are easier to punish. The moves with the longest recovery usually are heavy attacks.

Recovery frames are also not listed in the table above, but they’re also important to take into consideration when trying to understand why some moves are harder than others to punish.

Total Frames

The total frames column is the sum of startup frames + active frames + recovery frames. This is useful because we can now use this number to work backwards and estimate what the missing active and recovery frames would be.

Hitstop

Hitstop is currently above my level of explaining, but [Sonic Hurricane has a good article on it here](#). I encourage you to go read that.

Hit and Block Advantage

Hit advantage is the number of frames of advantage you earn when the attack is not blocked. This number is what allows some moves to combo into others.

Block advantage, on the other hand, is the number of frames of advantage you earn when the attack is *blocked*. This number can be positive, zero, or negative. Let's examine what these numbers mean:

- A move that is “plus on block” means that you have the advantage when performing your next attack. Advantage in this instance means that your next attack gets a head-start, so to speak, on the opponent's next attack.
- A move that is “zero (or even) on block” means that the situation is neutral, and neither player has the advantage after the attack is blocked.
- A move that is “negative on block” means that the attacker would be at a disadvantage after recovery, and thus, the defender's next attack would have a “head-start”.

When thinking about frame data, it can be easy to get lost in the technical terms and overthink things. I'd like to now use an IRL (in real life) analogy to help you better understand how all of this fits together.

Imagine that you are in a real fight and you are about to punch your opponent with a powerful right-hand punch. You pull your right arm back and begin to thrust it forward with all of your might. That motion right there is the equivalent of startup frames. Now your fist is making contact with the opponent's face, your knuckles cracking open his jaw; this connection would be part of active frames.

And finally, as you retract your arm back to your side, confident you've knocked the crap out of your opponent, you would be in recovery frames. Think of the punch in three modes, from start to completion: startup, active, and recovery.

Got it?

Okay, let's look at one of Ryu's moves and examine the frame data and what they mean.

Move	Startup	Recovery	Total	Hitstop	Hit Advantage	Block Advantage
stand LP	3		11	8	4	2

Ryu's st. LP is a useful and important part of his arsenal. By looking at st. LP's frame data, we can learn more about how it can be integrated into our game plan.

By comparing its 3-frame startup to the rest of his grounded normal attacks, we can see that it is his fastest normal. The difference between 3- and 4-frame moves may seem unimportant, but it is actually very important where a 3-frame normal could save you but a 4-frame normal would be too slow.

So with 11 frames of animation total, we can conclude that it is slightly longer than 1/6th of a second. In Street Fighter terms, that's pretty fast!

The difference between its startup (three frames) and total (11 frames) is eight frames, which are, in turn, split between active and recovery frames. At this point, we don't know how many frames are active and how many are recovery, but it doesn't matter right now for this example.

With hit advantage of four and a startup of three, we can conclude that Ryu's st. LP should combo into itself. Why is that? If the LP is not blocked, the opponent is in hitstun for four frames, and since LP only has a 3-frame startup, that leaves one frame of leeway. Block advantage is two, so if it's blocked, we'll have a 2-frame head-start on our next attack.

But this information by itself doesn't tell us much. It offers only a small snapshot. We need to look at the frame data for all of his normals in order to get a better sense of the big picture.

How to Analyze Frame Data to Construct Offense

When you analyze a character's frame data, you should do so in the context of figuring out how to construct your offense and deciding which moves are useful for different situations. Frame data can help you conclusively decide which moves are good to use together as blockstrings and which moves have the most frame advantage. Put together, you are further solidifying your offense, defense, and decision-making.

Here is the method I use to find blockstrings:

1. Find the moves with the most frame advantage.
2. Find the moves with the fastest startup.
3. Analyze the block advantage and startup of different button combinations in order to construct blockstrings that are safe, or hard to punish.

Blockstrings are useful because they would be harder to hit against strong opponents. And if the opponent doesn't block, or hits a button during a gap, blockstrings can usually be converted into combos.

Let's move on to discuss how to figure out which moves are useful.

Step 1. Sort the character's attacks by frame advantage in descending order so that the moves with the most frame advantage are at the top.

Move	Startup	Recovery	Total	Hitstop	Hit Advantage	Block Advantage
stand LP	3		11	8	4	2
crouch LP	4		11	8	3	2
crouch MP	5		19	12	4	2
stand MP	5		17	12	6	1
stand HP	7		29	15	1	1
crouch LK	4		12	8	2	1
axe kick (b+HK)	8		33	12*15	7	1

Note that right now we don't care about any of the moves with negative block advantage. Ryu has no normal attacks that have zero block advantage anyway.

Step 2: Examine the moves with the most frame advantage first: st./cr. LP and cr. MP, in this case. These will be the foundation of our blockstrings.

Step 3: Sort Ryu's normals by startup frames to find his fastest attacks.

Move	Startup	Total	Hitstop	Hit Advantage	Block Advantage
stand LP	3	11	8	4	2
stand LK	4	17	8	-1	-1
crouch LP	4	11	8	3	2
crouch LK	4	12	8	2	1
stand MP	5	17	12	6	1
crouch MP	5	19	12	4	2
crouch HP	6	33	15	-7	-10
crouch MK	6	21	12	0	-4
stand HP	7	29	15	1	1
crouch HK	7	30	15	KD	-11
stand MK	8	26	12	2	-2
stand HK	10	29	15	4	-1

In general, we'd want to string normals together to create a blockstring that ends with a Hadoken.

When constructing a blockstring, it's not enough to only look at the numbers and construct theoretical blockstrings. You also have to take into consideration the pushback that each move causes on hit and block, as well as whether the attacks connect when the opponent is crouching.

It's also important to leave frame gaps in case the opponent presses a button or tries to throw. Remember, if one attack connects to another while in startup frames, it'll score a Counterhit. On that note, some blockstrings are useful toward fishing for Counterhits, whereas others are simply a way to build meter, inflict white damage, and possibly convert into a larger combo.

In previous Street Fighter games, the traditional cr. MK xx Hadoken blockstring was a staple of Ryu's offense and was hard to punish. However, in SF5, this is easily punishable, so we need a blockstring that will push Ryu out further.

Since st. LP is +2 on block and has only a 3-frame startup, that leaves a 1-frame gap where the opponent could do something, like throw, hit a button, or attempt a Reversal. That's a pretty tight window, and I'm sure that since st. LP is chainable, this is a true blockstring with which the opponent cannot do anything except do a V-Reversal.

st. LP is +4 on hit, so if the opponent doesn't block, st. LK will connect next which then cancels into Hadoken.

Now try st. LP, st. LP, st. LK xx Hadoken. If you don't use HP Hadoken, it won't all combo. (This is good information to know.) However, if the opponent is stand-blocking, the second st. LP will whiff, which means that we need an attack that hits both standing and crouching opponents. The st. LK will still connect and cancel into Hadoken, but this would be an unsafe range and you can easily be punished.

This is where cr. LP comes in.

At a 4-frame startup, it would leave a 2-frame gap. Because it is chainable, the opponent is also stuck in

blockstun. Effectively, we have a 2-hit blockstring that starts with Ryu's fastest move and is then followed by another fast attack that connects, regardless of whether the opponent is standing or crouching.

cr. LP is +2 on block, so we would look at moves with a 4- or 5-frame startup next. We know from earlier that st. LK connects and is cancellable into Hadoken.

All in all, we now have a basic blockstring, but we should test it to see if it's safe on block against normals. Remember that cr. MK xx Hadoken by itself is no longer safe, so in order to compensate for Hadoken's being negative on block, we have to add extra hits to our blockstrings.

To test, set the dummy to Playback Recording and record st. LP, cr. LP, st. LK xx HP Hadoken into Recording Slot 1. Then turn Recording Slot 1 to *On* for the dummy to play it back repeatedly. Try all of your normals to see if any of them will hit the dummy while he's still stuck in Hadoken recovery.

Nothing works, so we've found our first safe blockstring! But can we make it better? I wonder.

Since cr. LP is +2, let's look at our moves that have a 5-frame startup. That leaves a 3-frame gap during which the opponent could press a button or try to tech a throw. Both st. MP and cr. MP have a 5-frame startup, but cr. MP is +2 on block. They both do 60 damage, but let's go with cr. MP since it has one frame of advantage more than st. MP does.

Meanwhile, st. LK does only 30 damage, but think about it: an extra 30 damage is a 100% increase if it connects! Also, cr. MP builds a little bit more meter, which gives you another reason not to use st. LK in this instance.

As a result, we have a slightly more optimized blockstring that connects on standing and crouching opponents alike. Check it out:

st. LP, cr. LP, cr. MP xx HP Hadoken

Take note, however, that this is not a combo. Thus, if the opponent isn't blocking at the start of the blockstring, he'll likely be blocking by the end.

Let's summarize:

- If the opponent is NOT blocking, st. LP, st. LP, st. LK xx HP Hadoken is both a combo and a safe blockstring, regardless of whether the opponent is standing or crouching.
- If the opponent is blocking high, the second st. LP will whiff, so we need to use st. LP, cr. LP, cr. MP xx HP Hadoken
- If the opponent is blocking low, st. LP, cr. LP, cr. MP xx HP Hadoken is a safe blockstring.

Sounds good so far, but what if we know that the opponent is going to be blocking? Let's take a look at how we can optimize even further.

While st. LP is +2 on block, it's fair to assume that even if it's blocked high, the opponent will likely shift to blocking low in order to avoid getting hit by a low attack. st. MP has a 5-frame startup, as does cr. MP; but st. MP is only +1 on block, whereas cr. MP is +2. In a situation where we know the opponent will likely be blocking, then we can do st. LP, cr. MP, cr. MP xx HP Hadoken, which has two 3-frame gaps during which the opponent could hit a button and you could score a Counterhit.

But!

One potential reason to use st. MP here is that it's also the beginning of Ryu's target combo (st. MP, st. HP, st. HK). If the opponent presses a button or attempts to tech a throw after your st. LP, you'll score a Counterhit and can hit-confirm into the rest of the target combo on reaction.

Let's practice, shall we?

Set the dummy to Stand and Random Block, and set Counter to *On*. Start your blockstring with st. LP, then press st. MP. Sometimes the dummy will block, but other times it will get hit.

If it blocks st. LP but gets hit by st. MP, you'll score a Counterhit and have enough time to react with the rest of the target combo. However, if the opponent is crouching, the last hit of the target combo will whiff.

If that's the case, you'd think that it'd make this tactic relatively useless. On the contrary, my friend. If the opponent were crouching, they'd probably be blocking low, in which case you would not be looking for a Counterhit anyway; you'd just continue your blockstring with cr. MP xx HP Hadoken.

In effect, we have an optimized blockstring for different situations:

State	Blockstring
Not blocking (high or low)	st. LP, st. LP, st. LK xx HP Hadoken
Blocking low	st. LP, st. MP, cr. MP xx HP Hadoken
Blocking high	st. LP, st. MP, st. LK xx HP Hadoken
Blocking then trying to tech	st. LP, st. MP, *hit-confirm, st. HP, st. HK

Take caution: Each of these blockstrings, except st. LP, st. MP, cr. MP xx HP Hadoken, would be unsafe if the opponent were cornered. Otherwise, they are all generally safe mid-screen.

BUILDING MUSCLE MEMORY IN TRAINING MODE

Up to this point, I've given you a ton of information. Simply reading about them doesn't make you a better player; practice, practice, and more practice does.

I know that most people don't like hearing it, but it's the truth: without dedicating time to practice these things, your game won't get anywhere. Put in the time to practice, even if it's an hour per day.

Yes, a lot of us have a job, a family, a girlfriend, a life, other hobbies, workouts, responsibilities, and overall, just a lot on our plate. Let's face it, we all have other things in life to do besides play Street Fighter. Even your boy gootecks doesn't sit around cracking out all day like he used to.

With our ever-shrinking pool of free time, we have to make sure the time that we *do* spend training has to be as efficient and effective as possible. Of course, efficiency here means that we get a lot of value from that investment of time. Similarly, effectiveness means that we continue to see improvements in various aspects of our game--consistently.

Street Fighter requires both physical and mental processes. It's not an overstatement to treat training in the game with the same respect and intensity as you would any other type of "real-life" training. In other words, you need to be diligent and consistent, and dedicate as much time and effort as is required to build muscle memory.

That said, you might not know where to start or what to do in Training Mode. Here are my recommendations.

Set training mode settings to the following:

Key Display: On

Attack Data: On

Dummy settings:

Guard: After First Attack

Recovery: Normal Recovery

Stun: Normal

Gauge settings

Leave as Auto Recover

Even though the game relies less on perfect execution, it's still worth spending time practicing your character's bread and butter combos and common punishes, especially if you are new to Street Fighter or fighting games in general.

A lot of this has been taken from my previous book, *Simplifying Street Fighter*. Feel free to skip over this section if you've already read that and built the muscle memory required.

Practicing Dashing

Depending on the controller you use, dashing can either be easy or frustrating. (For the new player, it's probably the latter.) With a stick, it can be especially awkward at first depending on whether you are left-handed or right-handed, and which side of the screen you are on.

Some players have a "stronger side" that they prefer to fight on, typically because it's easier for them to dash or perform special attack motions. If you find it easy to dash on one side but difficult on the other, you must then focus on improving the weaker side in order to balance your strength as much as possible.

Let's look at your own physical body to make a point: The more you use the dominant side and neglect the non-dominant side, the more imbalance you'll experience in physical strength. You can confirm this by lifting a pair of dumbbells in both hands, and notice that it's more difficult on one side. This is the same thing. Don't be the player that obviously plays effectively only on one side of the screen and ends up losing because of it.

A good way to get better at this is to do the fighting game equivalent of running laps on a track: dash from the left corner of the screen to the right corner, and then back again. If you can't do this 10 times consistently with minimal effort, this should be the first thing to practice when you begin your execution training for the day.

Flawless dashing is important because it can be a highly versatile and effective tool for both offense and defense. On offense, it helps close the gap between your opponent after a knockdown and pushes them toward the corner. On defense, it creates space between you and your opponent, and helps you get out of tight situations.

Practicing Hadoken (D, DF, F + P)

Ryu's Hadoken is important because it is useful in combos and to control space. Practice the down, down-forward, forward motion because a majority of Ryu's game depends on using it effectively. Plus, the motion is very commonplace in Street Fighter (and many other fighting games) so it's a good investment of time anyway.

The best way to practice throwing Hadokens or anything else in fighting games it is to turn on Key Display as mentioned above, so you can see what buttons and directions you're hitting on your controller. At this point, it doesn't matter whether you are playing on a pad, stick, or keyboard--whatever you are most comfortable with will work. (Note that I'll be referring to the controller as a stick because that's what I use and am most comfortable with.) All that matters is whether or not you can hit all 8 directions and all 6-8 buttons.

If using a stick, here's a simple exercise. Most people use their left hand to control the stick and hold it between their middle and ring fingers. You should practice just doing the down, down-forward, forward motion on the stick repeatedly on the left side and then again on the right side of the screen.

The goal of the exercise is accuracy, not speed. You're just getting a feel for how much pressure you need on the stick.

Practice this motion for ten seconds, then practice going down, down-back, back on the stick. Repeat for another ten seconds.

After working on just the motion, begin to integrate hitting LP after doing the motion. You don't need to press LP at the same time because that may be too much for your muscle memory at this point. Just press LP after rolling the stick from down to forward and once you get used to pressing the button after the motion, then begin to do the motion a little faster.

After you've done the motion a little faster, focus on pressing the button a little sooner. Finally after a few minutes of practice, it should begin to feel natural.

Now try to throw ten Fireballs in a row. If you screw up, that's okay; look at your inputs and see where you went wrong.

Maybe you hit the punch button when the stick was at down-forward or up-forward instead of forward. That's very common, but with practice it'll happen less and less.

Eventually, it'll become second-nature and you will be able to throw ten Fireballs in a row on each side of the screen. That's great because it's the Street Fighter equivalent of adding more weight to a lifting movement.

In the same way that a muscle grows stronger when you consistently stimulate it with heavier and heavier loads, your muscle memory for execution also grows stronger over time from repetition.

Practicing Shoryuken

Ryu's iconic Shoryuken is his strongest anti-air option, does a lot of damage, and is used in common combos. When you can Shoryuken at will, you make it harder for opponents to jump in on and can maximize damage in combos. Many games are won and lost because a player missed an opportunity to Shoryuken.

So to get better, practice the forward, down, down-forward motion by itself (similarly to how you practiced the Hadoken motion). Aim to be accurate; you don't have to perform the motion quickly when starting out.

Practice this for five minutes a day once you can throw a Hadoken consistently on each side. Slowly, you will build upon your Ryu arsenal.

Practicing Tatsumaki

The Tatsumaki motion is the opposite of a Hadoken: down, down-back, back. It can be useful in combos and going through projectiles. It's not as commonly used as his Hadoken or Shoryuken, but it's important to learn next.

If you learned how to Hadoken properly on each side, a Tatsu is no harder because the motion is exactly the same, except with a kick button instead of punch.

Practicing st LK xx Hadoken

This is your most useful ground tool because it does decent damage (if it connects), does chip damage (if it's blocked), is difficult to punish, and is relatively low-risk.

The st. LK animation can be cancelled into the Hadoken by doing the input immediately after pressing st. LK.

Practice hitting this from maximum st. LK range. This will help you develop an eye for that specific range, in which you can make contact, yet avoid being so far that your st. LK whiffs which will leave you vulnerable.

Practicing Throws

Throws are important because they counter a blocking opponent. Typically, if someone is blocking and not taking damage, he can easily be thrown. This threat keeps players from just blocking the entire match.

Learn how to utilize throws well because they are a useful offensive and defensive tool. Plus, they're easy to perform (LP+LK), do a non-insignificant amount of damage, and are an important part of any competent player's game. If you don't throw in Street Fighter, it's like playing rock, paper, scissors without knowing scissors exist.

Here's how to get started: see how far you can stand from the dummy while performing a throw and still have it connect. If it misses, this is called whiffing a throw, which puts you in a disadvantageous state called recovery frames. While in recovery, you cannot block and are vulnerable to being hit.

Throws are best used when you think your opponent will be blocking, getting up from a knockdown, or after blocking another attack. However, if the other player expects it, be aware that they can input the same throw command (LP+LK) to *tech* the throw, which means they will escape with no damage. This requires a combination of good reactions and anticipation, but becomes easier with time and experience.

For more in-depth throw exercises, refer to the Starting Street Fighter 5 Training Handbook which can be downloaded [here](#) if you purchased this book through Kindle, or if you purchased on Gumroad, you'll find it in a separate file.

Practice Whiff-Punishing

Whiff-punishing is the art and science of exploiting your opponent's missed normals and special moves with your own normal or special counterattack.

Developing this aspect of your game is important because when you establish that you are skilled in whiff-punishing, your opponent will likely be hesitant to recklessly stick out normals, which will make them more defensive. If your opponent is reluctant to attack due to fear of being whiff-punished, you can easily push them to the corner, then systematically dismantle their defense.

Let's look at a simple example to demonstrate whiff-punishing:

1. In Dummy settings, status to Playback Recording and then select *Action Recording Settings*.
2. Select *Recording Slot 1*. Now you are controlling the dummy Ryu.
3. Perform one crouching HK (sweep) while holding down-back to block.
4. Pause the game, then in Action Playback Settings, set Recording Slot 1 to *On*.
5. Stand outside of his sweep range and see how close you can get without getting hit. Once you have a good idea of its max contact range, you can walk inside and outside of it carefully and not get knocked down.
6. Practice walking near the dummy's sweep and hitting it with your own sweep at max range. The goal is to hit the dummy's leg as it retracts while avoiding getting hit yourself.

If the dummy blocks (you were holding down-back when you recorded the sweep, right?), you did your own sweep too late.

After a few minutes of practice, you should be able to do this pretty consistently, or at least be better at it than you were when you started. Once you're comfortable, try blocking the sweep and counterattacking with your own sweep.

Practice Anti-Airing

Once you have learned to control the ground through st. LK, st. MK, sweeps, and Hadokens, your opponent has no choice but to take to the air. Your ability to anti-air consistently and effectively usually means the difference between life and death in the game.

Many newer players tend to jump frequently. You want to avoid doing this yourself yet be prepared to unleash anti-airs effectively. Ryu has several anti-air tools for different angles and situations.

Anti-Airing with Shoryuken

His most damaging anti-air is his Shoryuken (good thing you practiced the motion until you could do it ten times in a row consistently and easily on each side, right? Right??). If you neglected your Shoryuken training, here's another opportunity to practice.

Shoryuken Anti-Air Exercise

1. In Dummy Settings, set Status to *Playback Recording*, go to Action Recording Settings, and select *Recording Slot 1*.
2. Now you're controlling the dummy. Time a j. HK to connect on your Ryu's shoulder area. If you hit the button too early, he'll connect on your Ryu's head, which is higher than what we want. If you wait too long, the kick won't come out in time before the dummy lands.
3. Pause the game, then go to Action Playback Settings, and set Recording Slot 1 to *On*.
4. Now practice anti-airing with MP Shoryuken.

The reason you use MP Shoryuken is that it has the most invincibility.

Time the Shoryuken to hit as "deep" as possible, meaning that you Shoryuken at the last possible moment before dummy Ryu makes contact with your Ryu. This is to ensure maximum damage and invincibility frames. Notice the damage difference when you Shoryuken too early and you only get the first hit compared to when you do it late and score both hits.

It'll take practice, and again, just a few minutes of practice a day will go a long way!

Anti-Airing with Normals

Sometimes you either won't be in range or won't have enough time to react to a jump-in with an Shoryuken. Luckily, Ryu has a few other tools that can be used as anti-airs such as st. HK and cr. HP.

Standing Heavy Kick is good for when the opponent jumps in from long range. This is a strong tendency of new players because they haven't learned that walking across the screen is safer and more effective than jumping.

st. HK will also score a Crush Counter if timed properly, allowing you to juggle with Critical Art.

This may take a few tries and you will probably need to hit the button earlier if you are getting hit, or if the attacks trade.

Crouching Heavy Punch (cr. HP) is good at a closer range. This can be used to stop nearly any air attack if executed early enough. This can be a strong alternative to relying on MP Shoryuken early on in your training which takes lots of practice to perform in a clutch moment.

You can practice anti-airing with these two normals by using the same Recording Slot as you used to anti-air with MP Shoryuken.

Once your execution reaches proficiency in these areas, you can move onto the next stage of execution practice which is learning how to practice combos.

BUILDING MUSCLE MEMORY FOR COMBOS AND OTHER SITUATIONS

Once you have built the muscle memory for executing Ryu's basic moves, the next step is to extend that muscle memory to other situations, such as combos. The good news is that learning Ryu's basic combos will help you understand how to build muscle memory for any character.

Before going any further, you must first understand the way the combo engine works in SF5 in order to troubleshoot your execution when something doesn't seem to be working. Familiarize yourself with the different types of combos below:

Links

A **link** refers to a combo sequence in which one move's animation finishes completely and puts the opponent in enough hitstun to allow the next move to connect before the opponent can block again.

An example of a link combo is Ryu's st. MP, cr. MP. The standing medium punch animation finishes completely and the second one connects while the opponent is still in hitstun.

Chains

A **chain** is a sequence of normal attacks that can be cancelled into another normal attack--typically itself or another light attack.

An example of a chain combo is Ryu's cr. LP xx cr. LP. You can chain multiple crouching light punches together in a combo.

Cancels

A **cancel** occurs when a normal attack's animation is cancelled into a special move. Usually the cancel window is only a few frames, meaning that if you tried to cancel towards the end of the animation, it won't work.

An example of a cancel is Ryu's cr. MP xx Fireball. You need to perform the motion for the Fireball immediately after you press cr. MP. If you do it too late in the animation, the Fireball won't come out or the game won't register a 2-hit Combo.

Breaking Combos into Segments

You can practice combos more effectively by breaking up the combo into as many segments as necessary to build your muscle memory for that segment.

Let's start with a simple Ryu combo: j. HK, cr. MP xx MK Tatsu

The combo can be broken down into two segments:

1. j. HK, cr. MP
2. cr. MP xx MK Tatsu

First, practice jumping in with Heavy Kick and linking cr. MP when you land, aiming to hit the opponent between the waist and the shoulders. This is what's called a *deep* jump-in. If you try to hit too low, the attack will whiff, and if you hit too high, you won't have as much frame advantage if the opponent blocked in a real match.

Next, practice cancelling cr. MP into MK Tatsu. If you haven't yet reached the point where you can do MK Tatsu every time effortlessly, I suggest you work on that first.

I find it easier to hold Down-Forward on the stick while I hit MP, because it's easier for me to roll from Down-Forward to Back than it is to try to do it from Down. This is because you may *accidentally* start the motion from Down-Back instead, which will not give you the input required for the Tatsu.

Only once you're able to do this segment ten times in a row should you put the two segments together.

You've already been practicing linking cr. MP after the j. HK and cancelling cr. MP into MK Tatsu, so learning these two separately should feel much more manageable than it would have been learning the whole thing at once.

For any determined beginner, it ideally should take no longer than five to ten minutes to successfully and effortlessly perform this combo at least 50% of the time. Of course, it will take more time to reach 90% accuracy, but this is a good start.

For more combo exercises, refer to the *Starting Street Fighter 5 Training Mode Handbook*.

WATCHING YOUR REPLAYS OR THE VALUE OF GETTING YOUR ASS KICKED

Losing in anything, fighting game or not, can be tough. You may feel a string of emotions such as anger, disappointment, shame, embarrassment, or self-loathing. In fighting games, Street Fighter 5 in particular, this pain can be increased tenfold because when you first start out as a beginner, you're going to lose a lot.

You know what's worse than losing? Losing every time you play. It's one thing when you're on a basketball team and you play a few times a week and lose. It's another when you're actively trying to improve your fighting game skills, but behind every ranked match opponent is an experienced killer waiting for his next victim.

Learning how to lose is important in fighting games because it's one of the best ways to improve. Thanks to modern technology, such as capture cards, as well as the built-in replay systems that most modern fighting games (especially SF5) have, you can more easily watch back your matches to see where you went wrong.

This can be a tough pill for the ego to swallow because of the emotions you feel when you lose. But understanding that losing is a part of winning is an important step in the process of improving as a player.

It can be easy to downplay losses as well. You may blame your loss on a cheap character, an opponent's laggy connection (it couldn't possibly be yours, right?), lack of experience, your controller, or any other number of excuses. But ultimately, you are the one to blame.

You were the one that threw a projectile from an unsafe range. You were the one that did a wake-up Shoryuken that got blocked. You were the one that couldn't tech that throw. You were the one that was unfamiliar with the opponent's character. The list goes on.

Taking responsibility for your losses is difficult because the ego is fragile. By accepting responsibility, it means that we are not the player we imagined ourselves to be. But that's okay because with the right frame of mind, a loss is not a blow to the ego as much as it is an opportunity to improve.

Watching back one's replays or at least thinking about why you lost is important in figuring out where you went wrong and how you can improve next time.

Watching Your Replays

Street Fighter 5 has replays available at the end of each match in Versus Mode, as well as available after each online Ranked Match. All you have to do is go to the Capcom Fighters Network section and the online replays are there.

New to Street Fighter 5 is the ability to speed up and rewind your replays. This is useful because watching the match at a faster speed can help you the flow of the game a little easier. Being able to rewind allows you to rewatch a certain part. Watching in slow motion can be useful to think more clearly about the decisions you made in every situation.

I recommend watching with Attack Data and Key Display on as well.

Here are some general things you can look for when watching a replay:

- execution errors on your part
- botched anti-airs
- misuse of resources like EX meter and V-Gauge
- which moves or situations you took the most damage from
- missed opportunities to punish an opponent's move

- trying to punish an opponent's move that was safe
- punishing with a sub-optimal attack or combo
- being more observant of the opponent's patterns and tendencies
- where did you lose control of the match

Generally it can be pretty soul-crushing to watch your replays right after the match. Instead, try watching replays from the day before at the start of your training session so you can watch them with fresh eyes without still being emotionally involved.

SF5 makes it easy to create a list of replays to watch using your Fighter's Profile. Within, you can find a list of all of your most recent Ranked, Casual and Battle Lounge matches. Create a list of these then watch them back. If you lost a lot last time, add a few wins in there so you can feel yourself a bit as well.

Taking Notes on Replays

As you watch them, take specific notes about what you can take away from the match. Your goal is to create an actionable checklist of items you can address in Training Mode after watching the replays.

This checklist should be as specific as possible so that you know when you can check something off the list.

I recommend [Evernote](#), which is what I use for Street Fighter notes as well as to organize work and real life stuff.

Here is an example of a bad, unspecified notes:

- need to learn the Rashid match
- stop doing wake-up throws
- anti-air when they jump

Here is an example of specific, actionable notes:

- how do I punish Rashid's Spinning Mixer? Is it even punishable?
- practice teching throws for 3 minutes
- record Ryu jumping in with j. HK and practice punishing with MP Shoryuken for 1 minute on each side

Yes, this process can be a pain in the ass. Yes, it's kinda nerdy and academic. However, being systematic about your training is a strong method of consistently improving.

Developing a positive attitude when it comes to losing is important. Rather than blaming yourself, the character, the game, or the opponent, ask yourself what you can learn from it and then create an actionable list that you can work on in Training Mode so you never lose the same way twice.

WHAT'S NEXT?

Congratulations! If you made it all the way through, I'm sure you learned a few things about fighting games and Street Fighter 5 in particular. The next step in your fighting game development is to get out there into the real world and play with real people.

Not everyone can be the next Daigo Umehara or Justin Wong, but not everyone needs to be. You don't need to be the best, you just need to be the best player you can be. So finding a local group of players to train with is critical in taking your skills to the next level.

I appreciate your taking the time to read any part of this eBook and hope that it was useful in some way to you. Hopefully some new concepts were introduced and some things that you may have been unsure about have been cleared up.

If you have comments or questions, feel free to hit me up on [Twitter](#). If you're looking for one-on-one coaching, I may still be offering it at the time of this writing, but if not, there are plenty of trainers that can help at [Cross Counter Training](#).

If you are so inclined, you can also tip me via [PayPal](#).

Thanks for reading and good luck!

-gootecks ([Twitter](#) | [Instagram](#) | [YouTube](#) | [Web](#))

APPENDIX A: RESOURCES

Your journey to becoming a stronger player does not end with this book! Becoming a part of the fighting game community (FGC) by competing in tournaments, watching streams, contributing information, and more is what will also help get you to the next level.

Here are some resources that you can check out that will help you keep up with what's going on in the scene and connect with other players.

Tournament Streams

- [Team Spooky](#) - Team Spooky streams tons of major and local fighting game tournaments throughout the year. Based in New York but frequently broadcasting from different national and international locations.
- [Level Up Live](#) - The home of SoCal Regionals as well as weekly tournament series Wednesday Night Fights.
- [Capcom Fighters](#) - The home of the Capcom Pro Tour and Capcom Pro Talk with Mike Ross every Tuesday.
- [Showdown](#) - Showdown runs weekly fighting game tournaments on Tuesdays and Thursdays from The Foundry in San Francisco, CA.
- [KhaosGaming](#) - Covers the Pacific Northwest FGC including Northwest Majors and will be putting out more SF5 content as the game releases.

Player Streams

- [Alex Myers](#)
- [Aris](#)
- [brenttiscool](#)
- [BrolyLegs](#)
- [Chris G](#)
- [EG.Justin Wong](#)
- [EG.PR Balrog](#)
- [FGTV Live](#)
- [fLoE](#)
- [IFCYipeS](#)
- [Infiltration](#)
- [LI Joe](#)
- [Maximilian](#)
- [NuckleDu](#)
- [nycfurby](#)
- [Pandora House](#)
- [Poongko](#)
- [ReNiC](#)
- [RicoSuave](#)
- [RZR.Xian](#)
- [Team PIE](#)
- [Tuboware](#)
- [UltraChenTV](#)
- [Yomi Gaming](#)

YouTube Channels

- [Cross Counter TV](#) - Shameless self-promotion! The entertainment network for fighting game fans, featuring Excellent Adventures every Sunday with myself and Mike Ross as well as find other tutorial content.
- [Cross Counter Training](#) - More shameless self-promotion! We upload tutorial videos to help players like you get better!
- [Vesper Arcade](#) - The home of the best SF4 tutorial series you can find on the internet. Vesper Arcade will be producing tons of SF5 content so make sure to subscribe.
- [Maximilian](#) - One of the hardest workers in the FGC, Maximilian's passion for fighting games is unmatched. He's produced some of the best fighting game tutorial videos ever such as the *Assist Me!* series.
- [AirBehr Dojo](#) - Canada Cup Gaming's Air and Vancouver's Behrudy team up to produce high-level tutorial videos that will help you step up your game.
- [Air](#) - Canada Cup Gaming's Air also puts out solo videos and tutorials.
- [Bafael](#) - Tons of fighting game tutorials for all player levels for an array of different games.
- [Jay Rego](#) - Extremely well-produced videos that teach you beginner, intermediate, and advanced topics.
- [Supermansajam](#) - Basic character guides and combos for SF5 and other fighting games.
- [Geoff the Hero](#) - The guy's kind of a dick, but his tutorial videos are pretty good. ;)

Web Resources

- [Shoryuken](#) - The granddaddy of fighting game web sites, SRK has a large forum archive of SF4 and pre-SF4 posts as well as a frequently updated news section and schedule of upcoming tournaments.
- [EventHubs](#) - The best place for fighting game news, tournament results, popular streams and more. You can also find frame data, moves lists, combos and more for almost any fighting game.
- [r/StreetFighter](#) - The Street Fighter subreddit on Reddit which is a great place to find the latest news, useful videos, memes, and streams.
- [Cross Counter Training](#) - We offer personal one-on-one training for aspiring players just like you that are trying to get better.
- [FGC Community Locations Database](#) - Not sure if there's a local FGC nearby? There probably is and this Google spreadsheet has a directory with a ton of them worldwide.
- [Simplifying Street Fighter Facebook Group](#) - The Facebook group for this book! Join it and connect with other new players and level up together.
- [Excellent Adventures of gootecks & Mike Ross](#) - Not exactly a resource for getting better, but watching us lose should certainly help you figure out what NOT to do.
- [Capcom Fighters Live Viewing Site](#) - This is THE best way to view all of the Capcom Pro Tour events. I worked closely in the creation of this site and am extremely proud of what it can do to improve the streaming viewing experience.

Facebook Groups

- [Birdie](#)
- [Cammy](#)
- [Chun-Li](#)
- [Dhalsim](#)
- [FANG](#)
- [Karin](#)
- [Ken](#)
- [Laura](#)
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- [Nash](#)
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- [R. Mika](#)
- [Rashid](#)
- [Ryu](#)
- [Vega](#)
- [Zangief](#)

Tournaments & Events

- [Evolution](#) - Las Vegas, NV
- [Capcom Cup](#) - San Francisco, CA
- [Southeast Asia Majors](#) - Bangkok, Thailand
- [SoCal Regionals](#) - Ontario, CA
- [NorCal Regionals](#) - Sacramento, CA
- [Northwest Majors](#) - Seattle, WA
- [Community Effort Orlando](#) - Orlando, FL
- [Final Round](#) - Atlanta, GA
- [Big E Gaming](#) - Philadelphia, PA
- [First Attack](#) - Puerto Rico
- [Defend the North](#) - New York, NY
- [Combo Breaker](#) - Chicago, IL
- [The Fall Classic](#) - Raleigh, NC
- [Kumite In Tennessee](#) - Memphis, TN
- [Canada Cup](#) - Toronto, ON
- [Red Fight District](#) - Amsterdam, Netherlands
- [Stunfest](#) - Rennes, France
- [Dreamhack Winter](#) - Jönköping, Sweden
- [Rewired AZ](#) - Tucson, AZ
- [Absolute Battle](#) - Dallas, TX

APPENDIX B: GLOSSARY

Back Recovery

A new wakeup option in addition to Normal Recovery. Back Recovery causes your character to do a backflip on wakeup, creating additional space. This is performed by pressing any two kick buttons or back on the controller as you hit the ground.

Blockstring

A sequence of attacks that flow together, forcing the opponent to continue to block or get hit by one of the attacks. Most commonly, they begin with light attacks, though mediums and Special Moves can be included as well.

Chain Combo

Chain combos are usually made up of light attacks, whose animations are cancelled when another light attack is pressed. Chains cannot be canceled into special attacks and are typically used in blockstrings. For example, Ryu can press two cr. LPs quickly and they will chain, which would then remove the ability to cancel with a special move. However, if he waits a split second and the two cr. LPs link instead, a special move can be performed immediately afterwards. This is admittedly a minor nuance and seemingly unimportant, however, when you run into combos that you can't perform even though you're positive you're doing the inputs properly, this is likely the reason why.

Chip Damage

Damage incurred from blocking Special Moves and Critical Arts. In SF5, normal attacks do grey life damage that is similar to the chip damage amount from specials. Because it is grey life, it can be recovered quickly once you are away from the opponent. If you die from chip damage in a round, the game denotes this with a C icon in the round bubble marker instead of a V, S, or U.

Command Grab

A type of special move that has similar properties to a regular throw but typically does more damage or has more range. Examples of command grabs are Zangief's Spinning Piledriver and Abel's Tornado Throw.

Critical Art

A Special Move that requires three stocks of Critical Gauge to perform, usually resulting in high damage, and is considered a serious in-game threat.

Critical Gauge or EX Meter

The bar at the bottom of the screen that builds as you score hits, take damage, and perform special moves. As you build more stocks of meter, you gain additional options such as EX Specials and Critical Arts.

Focus Attack (MP+MK)

An SF4-exclusive mechanic that allows the player to absorb one hit of an attack and swiftly retaliate. Focus Attacks incur gray life if you absorb and also help to build your Ultra meter.

Footsies

The process of jockeying for position on the screen, usually using normals. Usually, a mix of light and medium attacks are used to throw off the opponent's ability to judge the distance effectively, and then whiff-punish with a medium or heavy attack. Developing strong footsies is a must for becoming a strong player.

Link Combo

This is a type of combo where one move's animation finishes completely and the opponent is kept in hitstun long enough for the next attack to connect before they can block. This is different from a "cancel" where the animation is canceled instead of allowed to finish.

Meaty

Meaty attacks are performed as the opponent stands up from a knockdown. Meaties could vary anywhere between a light attack sequence like cr. LK, cr. LP to a cr. MP or even a Fireball, depending on the range or situation. The goal of the meaty attack is to force the opponent to block on wake-up or get hit. Generally, meaties will beat (non-EX command grab) throws and attacks without startup invincibility but are inferior to attacks with startup invincibility, such as a Shoryuken or Critical Art.

Mix-up

An offensive scenario in which the opponent must guess what type of attack you will attempt next (i.e. low, mid, overhead, or throw).

Neutral game

Any part of the match in which both players are on their feet and jockeying for position through the use of their movement, normals, and specials.

Normals or Normal Attacks

Any single button press, usually used when talking about a character's standing attacks. A character with "good normals" is typically strong in the neutral game.

Normal Recovery or Quick Rise

A technique in SF4 and SF5 that allows your character to get up faster after being knocked down, and is performed by pressing any two punch buttons as you hit the ground or by pressing down on the controller. The advantage of using Normal Recovery is that your opponent has less time to set up his next move.

Hard knockdown

A knockdown where the opponent cannot Quick Rise. In SF5, only some Critical Arts cause a hard knockdown.

Option Select

An input or series of inputs that functions as multiple attacks where the outcome is determined by the game engine and the opponent's action. They are used offensively and defensively to challenge one or more options of your opponent. In SF4, the simplest example of an option select is a crouch tech, which is performed by hitting cr. LP + cr. LK while crouching. If the opponent attempts a throw, you will tech it if timed correctly. If the opponent does anything aside from throw, cr. LK will come out. This simple option select is useful because the alternative of standing to tech a throw might result in a whiffed throw which is far riskier and easier to punish than cr. LK. However, this has been removed from SF5.

Ultras aka Ultra Combos

A Special Move that requires either Level 1 or Level 2 Ultra Meter to perform. Similar to a Super Combo in damage output and execution but different for each character.

V-Gauge

The red gauge at the bottom of the screen which builds as you take damage, score Crush Counters, and successfully use your V-Skill. Some characters have two-stock V-Gauges, while others have three. This gauge resets every round.

V-Reversal

A defensive move requiring one stock of your V-Gauge. Damage incurred to the opponent is grey life damage which can be made permanent by scoring an additional clean hit. It is performed by pressing F+PPP or F+KKK while in blockstun.

V-Skill

A move unique to each character that is performed by pressing MP+MK. This is usually a move that covers a weakness in the character's overall game plan. Successfully using your V-Skill builds your V-Gauge.

V-Trigger

Activated by pressing HP+HK, each character's V-Trigger is unique. Some are a power-up offensive mode, some are a one-off action or attack. Each consumes the entire V-Gauge.

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