



# Metrics & Features

WHAT THEY ARE | WHY THEY MATTER | HOW TO USE THEM

pitchLogic

SKILL PL 98 STUFF PL 93

2281

35

3

-9

82.9

RH BATTER LH BATTER

Zone Score

Best

Worst

IMPROVE Tap each for more info

- ⚡ Raise your **Arm Slot** to more closely match your fastball.
- ⚡ Lower your **Spin Direction** to create more **Horizontal Movement**.
- ⚡ Increase your **Speed** for a more deceptive breaking ball.

pitchLogic  
By F5 SPORTS

Made in the USA



## pitchLogic

allows you to see your pitches like never before with the industry's most accurate and complete set of capabilities.

For every metric in pitchLogic, we detail what it is, why it matters and how to use it. Also included are graphics for each metric showing where it is in the app.

This guide is divided into two different sections detailing throwing sessions, and our featured metrics.

Our mission at F5 sports is to help players of all levels train more effectively and win more games. We hope this guide will support a fast start using pitchLogic.

If you have any questions or would like any additional information, please feel free to visit us at [www.pitchLogic.com](http://www.pitchLogic.com) or contact us at [support@F5Sports.net](mailto:support@F5Sports.net)

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pitchLogic

SKILL pL 98 | STUFF pL 93 Pro

SL

2281 RPM

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PITCHLOGIC

# Throwing Sessions

Bullpen Session..... 6

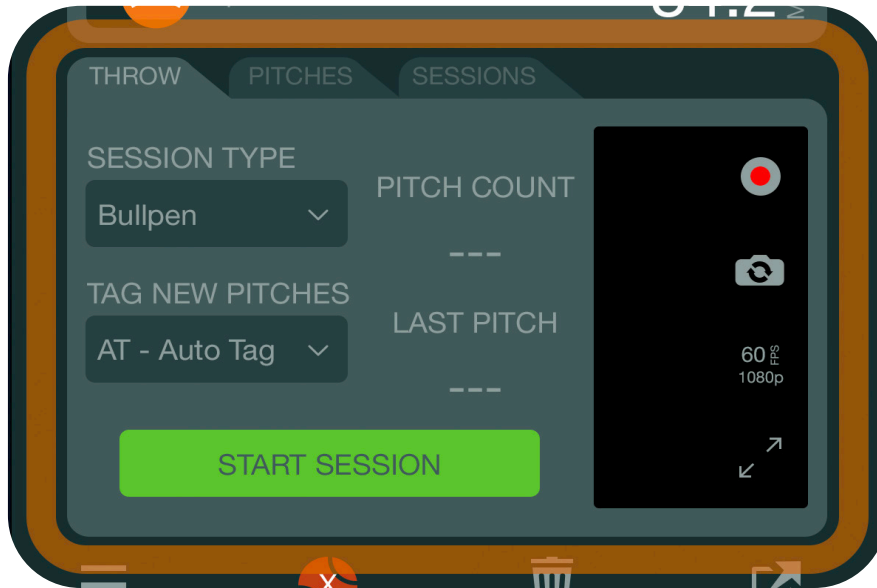
Assesment Session..... 8

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# Bullpen Session



*A session where pitchers practice their pitches and mechanics..*

## What it is

pitchLogic offers advanced data for bullpen sessions, enabling players and coaches to collect, analyze, and adjust pitch data in real-time. By using pitchLogic baseballs during bullpen sessions, pitchers will obtain detailed metrics on each pitch. This allows for precise adjustments and informed decisions about pitch development.

## Why it matters

Bullpen sessions are critical for developing a pitcher's feel, muscle memory, and consistency on the mound. Traditional bullpen sessions often rely on subjective observation and feedback, making it difficult to quantify progress and pinpoint areas for improvement. pitchLogic revolutionizes this process by providing objective, real-time data on each pitch. This enables pitchers to understand their strengths and weaknesses more clearly, make immediate



adjustments, and accelerate their development. The ability to track metrics during bullpen sessions ensures that pitchers can optimize their training, resulting in more effective and efficient development

## How to use it

Open the pitchLogic app, tap on the Throw tab, and select Bullpen for the Session Type. Connect the pitchLogic ball and tap Start Session. Begin with your usual warm-up routine to prepare your arm for throwing. Perform your bullpen session aiming for five pitches of each type in your repertoire to gather sufficient data. As you throw, the pitchLogic app will automatically tag and store data for each pitch, or you can manually select pitches. After each pitch, review the metrics provided by pitchLogic, focusing on key aspects such as spin rate, spin direction, and velocity. Use the real-time feedback to make necessary adjustments to your mechanics

or grip. Repeat the process, continuously refining your pitches. After the session, review the aggregated data in the pitch selector tab to identify trends and areas for improvement. Use this information to inform future training sessions and focus areas.



Smartphone View;  
Relevant Metrics Highlighted



# Assesment Session

## IMPROVE



Raise your **Arm Slot** to more closely match your fastball.



Lower your **Spin Direction** to create more Horizontal Movement.



Increase your **Speed** for a more deceptive breaking ball.

*A session analyzing performance data to provide AI-driven improvement suggestions.*

## What it is

The Assessment session feature in pitchLogic is an advanced tool that uses AI to provide detailed feedback on a pitcher's performance. The feedback includes a STUFFpL score, which rates pitches relative to a player's level of play for each pitch type (Fastball, Curveball, etc.). During these sessions, players throw a series of pitches with in-game intensity, and the pitchLogic system analyzes these pitches, offering insights on metrics such as Arm Slot, Spin Direction, Movement, and

more. This feature helps pitchers understand the effectiveness of each pitch in their arsenal and identify specific areas for improvement. Additionally, the assessment session utilizes Heat Maps to visualize optimal pitch locations against different batter types, aiding pitchers in understanding where their pitches are most effective. These heat maps extend beyond the strike zone, providing valuable insights into pitch placement strategies.



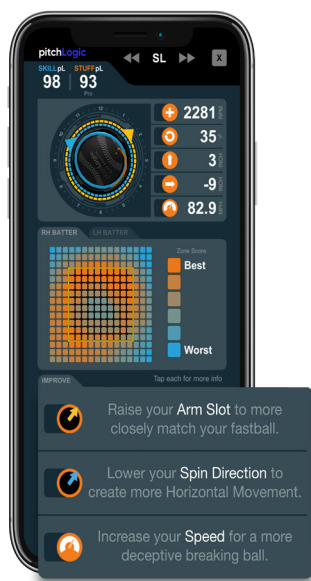
## Why it matters

Gaining precise and actionable feedback is crucial for any pitcher looking to refine their skills and improve their game performance. Traditional methods of assessment often lack the detailed metrics needed to make informed adjustments. The pitchLogic assessment session fills this gap by providing comprehensive data and AI-driven recommendations. This allows players to make targeted adjustments to their mechanics, leading to more effective and consistent pitches. Additionally, having access to such in-depth analysis helps players set realistic goals and track their progress over time, ensuring continuous improvement.

## How to use it

Open the pitchLogic app, tap on the Throw tab, and select Assessment for the Session Type. Connect the pitchLogic ball and tap Start Session. Perform your assessment by throwing a minimum of three pitches for each pitch type in your repertoire. Ensure that you include all the pitches you typically use in a game. Once you've completed the session, review the AI-generated feedback. The app will provide detailed analysis, focusing on key aspects like arm slot, spin direction, and pitch movement. Look through the metrics and recommendations provided. Identify which areas need adjustments based on the feedback and establish specific, measurable goals based on

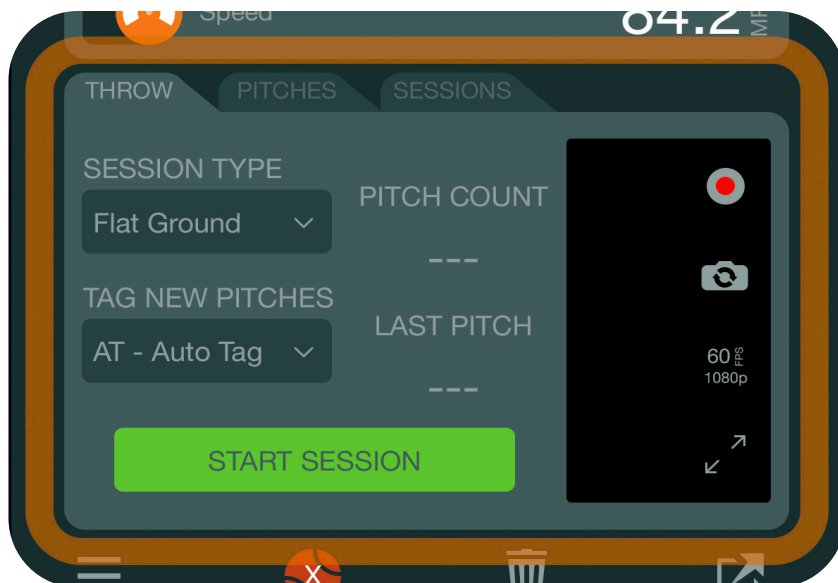
the recommendations. Use the location heat map and other metrics to track your progress and adjust your training as needed.



Smartphone View;  
Relevant Metrics Highlighted



# Flat Ground Session



*A pitching session conducted on level ground instead of a mound.*

## What it is

Flat Ground sessions are integral to a pitcher's development, allowing them to practice at lower intensities while still capturing critical data. Using pitchLogic baseballs, players can throw on flat ground and receive detailed metrics, helping pitchers refine their mechanics and consistency without the need for a mound.

## Why it matters

Flatground Sessions are essential for building consistency and muscle memory in a controlled, less intense environment compared to mound sessions. They provide an opportunity to focus on specific aspects of pitching mechanics, command, and pitch development. Traditional flatground work often lacks the precision and feedback needed to make meaningful improvements.



With pitchLogic, pitchers gain access to comprehensive data on every throw, allowing for targeted adjustments and more effective training. Tracking metrics during Flatground Sessions ensures that pitchers can monitor their progress, make informed decisions, and develop a deeper understanding of their pitches. Often times flat ground throws make up 80% of a pitcher's throws in a week. No other tool has the capability to provide the insights into these throws the way pitchLogic can.

## How to use it

Open the pitchLogic app, tap on the Throw tab, and select Flat Ground for the Session Type. Connect the pitchLogic ball and tap Start Session. Perform your flatground session, throwing at lower intensity. Include all pitch types in your repertoire, aiming for a minimum of five pitches for each type to gather sufficient data. As you throw, the pitchLogic app will automatically tag and store data for each pitch, or you can manually select pitches. Review key metrics and use the real-time feedback to make necessary adjustments to your mechanics or grip. Continue to throw and refine your pitches based on the data provided. After the session, review the aggregated data

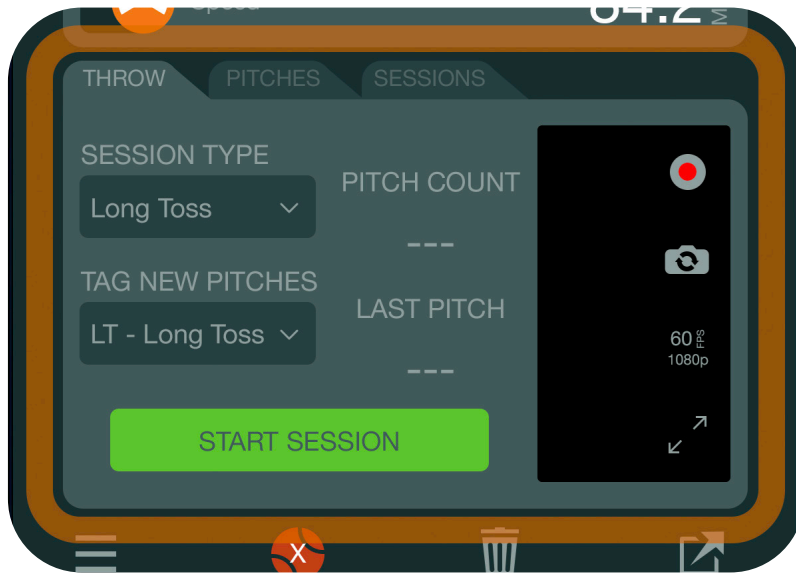
to identify trends and areas for improvement, using this information to inform future training sessions and focus areas.



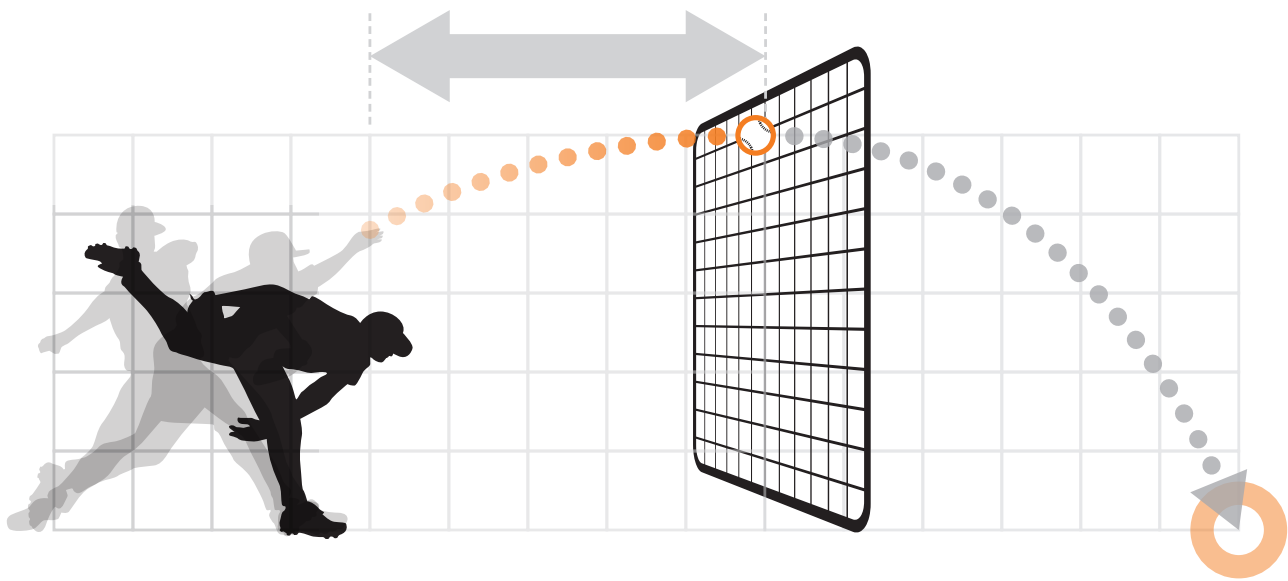
Smartphone View;  
Relevant Metrics Highlighted



# Long Toss Session



*The distance, flight time and angle of approach of the ball where it is projected to hit the ground. These metrics can be obtained by throwing a ball into an elevated net at least 10 feet away.*



## What it is

pitchLogic includes a collection of features allowing players to practice long toss in an indoor setting. A player can throw a ball into a net at least 10 feet away and pitchLogic will provide metrics on projected distance, flight time, and approach angle. When throwing long toss you still receive the full array of pitchLogic metrics with each throw.

## Why it matters

Long toss is an important element of a lot of training programs. However, doing long toss outside can be a challenge due to weather, facilities, or access to enough space. Long toss has historically required two people, a large outdoor space, good weather, and a long measuring tape. Another challenge with traditional long toss training is that it is difficult or impossible to capture metrics on those throws. pitchLogic allows players to throw long toss indoors at their training facility or even at home and you can dial in the exact throwing distance you are targeting.

## How to use it

Open the pitchLogic app, tap on the Throw tab, and select Long Toss for the Session Type. Connect the pitchLogic ball and tap Start Session. You don't need to activate any special mode within pitchLogic to capture long toss data. Come set then throw the same way you would outdoors (use a high release angle) but into a net as close as 10 feet away. The ground tab of the pitchLogic app provides details on where the ball would have hit the ground if you were throwing outside. In addition, you can use the rest of the pitchLogic metrics to measure your throwing mechanics and spin data. You may want to keep your arm slot and spin direction consistent with your pitching motion.



Smartphone View;  
Relevant Metrics Highlighted

PITCHLOGIC

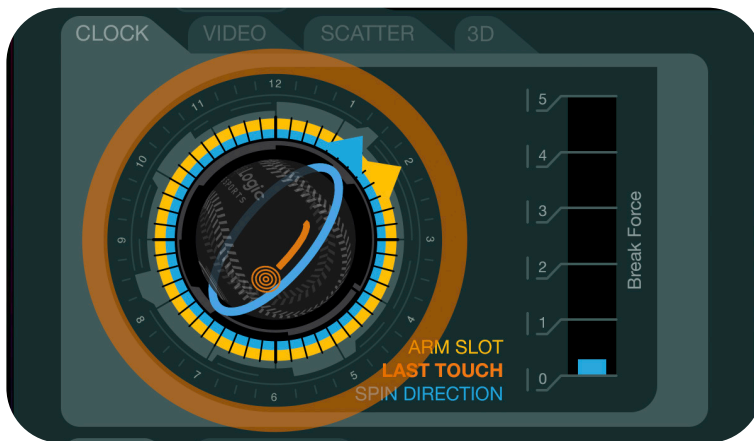
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# 3D Clockface



*The 3D Clockface shows the Arm Slot and Spin Direction of the ball plus a 3D view of the Spin Axis, seam orientation and Last Touch.*

## What it is

The Clockface uses two arrows, like hands on a clock, to represent your Arm Slot and Spin Direction. This gives the pitcher a graphical overview of the relationship between their throwing mechanics and the spin on the ball. The Clockface shows Arm Slot in yellow and Spin Direction in blue from the pitcher's point of view.

The 3D Clockface also uses two arrows for Arm Slot and Spin Direction but builds on this with 3D representations of additional information. These include the 3D seam orientation at release, 3D view of spin, the Last Touch location on the ball, and the Last Touch path just before release. The 3D seam

orientation is shown on the gray pitchLogic ball in the center of the 3D Clockface. This ball shows the exact orientation of the seams, logo, and other markings on the ball at the moment of release. The spin is shown in 3D using a blue ring around the ball. The Last Touch point is an orange bullseye on the surface of the ball. This represents the last point of contact with the pitcher's fingers or hand. The Last Touch path is an orange tail, which ends at the Last Touch point. This shows the path of the finger/hand as it puts spin on the ball.

## Why it matters

A pitcher's body, arm, and hand movement work together to determine how a pitch will behave. The 3D Clockface display highlights some of the most important relationships in an easy-to-read graphical form.

One of the fundamental characteristics of an individual pitcher's style is their Arm Slot. A consistent Arm Slot is an important starting point for building command and consistency. It's also important for concealing different pitch types from the batter.

Your Arm Slot has a large impact on how you are able to

create spin and movement. For a fastball, Spin Efficiency will generally be highest when the Arm Slot and Spin Direction are closely aligned. For breaking balls, the highest Spin Efficiency is possible when the Spin Direction is about 180 degrees away from the Arm Slot.

Adding the 3D view of spin gives a more complete picture of how the ball is spinning in space. This allows you to see if the spin is tilted or off axis, which will lower Spin Efficiency and in turn reduce Movement. With 100% Spin Efficiency you will see only the edge of the blue ring, which will start to look like a line. As Spin Efficiency is reduced, more of the ring will be visible. This will form an oval or a hoop. A pitch with 0% Spin Efficiency will appear as a perfect circle.

The Last Touch point and path allow the pitcher to see how their grip and release create the spin on the ball. For example, a pitcher with a low Spin Efficiency on their fastball may see that their Last Touch traces from behind the ball to the side of the ball at release instead of staying behind it, which creates unwanted Rifle Spin. Typically, the motion of the fingers will lead directly into the Spin Direction of the ball. This can be seen with the relationship between Last Touch and 3D spin.

## How to use it

The 3D Clockface gives a quick and easy way to see how Arm Slot and release affect Spin Direction and Spin Efficiency. This allows players and coaches to make small adjustments after each pitch and immediately see the results without breaking their rhythm.

### Fastball:

If a pitcher is working on improving their fastball's Spin Efficiency, a separation between the Spin Direction and Arm Slot arrows can indicate cutting the ball. As the pitcher works on keeping their fingers behind the ball through release, watching the blue arrow move toward the yellow arrow is a good gauge of progress. If using the 3D Clockface, the blue spin ring and the Last Touch point give an even more direct view of what's causing a lower Spin Efficiency.

### Breaking ball:

For a breaking ball, Arm Slot has a large impact on the shapes of breaking balls that will be possible. A higher Arm Slot (closer to 12:00) allows a pitcher to create more Topspin and a more "12-6" or vertical breaking ball. Pitchers with a lower Arm Slot will be able to create more Sidespin and Horizontal Movement. Pitchers can also choose breaking balls that sacrifice maximum Spin

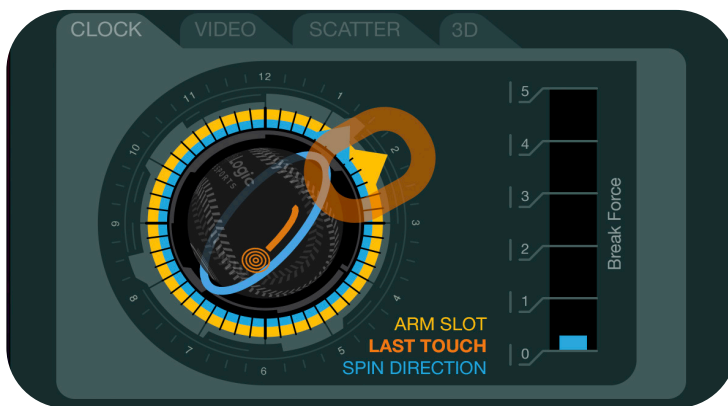
Efficiency and movement to create different Spin Directions (such as a slider). With Last Touch, pitchers can see how their release creates different types of movement. If the Last Touch point is in front of the ball, it will typically create a Spin Direction opposite the Arm Slot with a relatively high Spin Efficiency. If the Last Touch point is to the side of the ball, the Spin Efficiency will decrease, and the Spin Direction will move back toward the Arm Slot.



Smartphone View;  
Relevant Metrics Highlighted



# Arm Slot



*The angle of the arm path just before the release point.*

## What it is

Arm slot is the angle that the pitching arm takes through the top of the pitching motion up to the release point. It is represented by the yellow arrow on the Clockface and 3D Clockface. Arm Slot is expressed as time on a clockface when viewed from behind the pitcher. For example, a righthanded pitcher would generally have an Arm Slot between 12:00 (overhand) and 3:00 (sidearm).



**NOTE** View from behind the pitcher

## Why it matters

A pitcher's Arm Slot has a big impact on what type of spin they are able to generate. For a fastball, a higher Arm Slot will tend to generate more Backspin and thus more Vertical Movement. Pitchers with a lower Arm Slot will tend to have more Side Spin, which will

create more arm side run.

When throwing a fastball, aligning the Spin Direction with the Arm Slot can be a good indicator of staying behind the ball and achieving high Spin Efficiency. If the Spin Direction is higher (closer to 12:00) than the Arm Slot, it may indicate that the pitcher is cutting the ball.

For any given pitch a consistent Arm Slot helps a pitcher achieve consistent control. Having a consistent Arm Slot across pitch types makes it more difficult for the batter to identify the pitch type at release. If the Arm Slot for a fastball and curveball are the same, it is more difficult for a batter to recognize the type of pitch thrown.

## How to use it

To get a feel for what your Arm Slot looks like, try throwing each of your pitch types a few times and examining the Arm Slot for each one. Try to keep your Arm Slot consistent across all of your pitches. This will lead to a more consistent delivery, which will improve your control as well as disguise your pitches better.

A changing Arm Slot can also be a good indicator of changing mechanics over the course of a season or a career. Fatigue and other factors can cause your Arm Slot to change over time, which may lead to deterioration in performance. If a particular pitch seems to be less effective than earlier in the season, looking at the Arm Slot of pitches in your history may

help you find what has changed.

Arm Slot can be very useful even when you are working on other aspects of your pitching. Spin Direction and Movement are heavily influenced by your Arm Slot, so looking at your Arm Slot provides important context when you are trying to understand them. If you are trying to figure out why you aren't getting more ride on a fastball, it could be an issue with your delivery or your spin, or it may simply be that you have a lower Arm Slot.

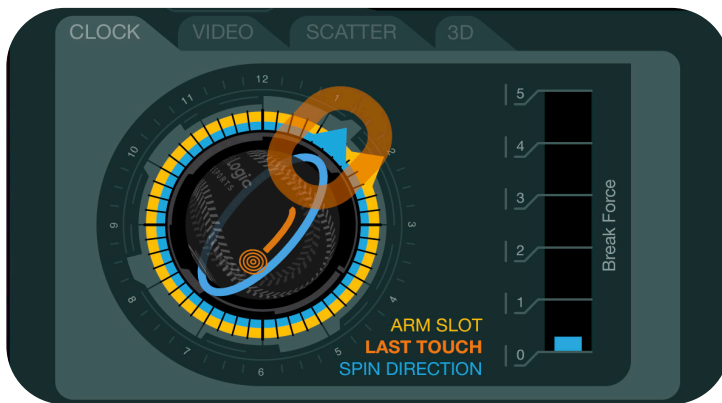


Smartphone View;  
Relevant Metrics Highlighted

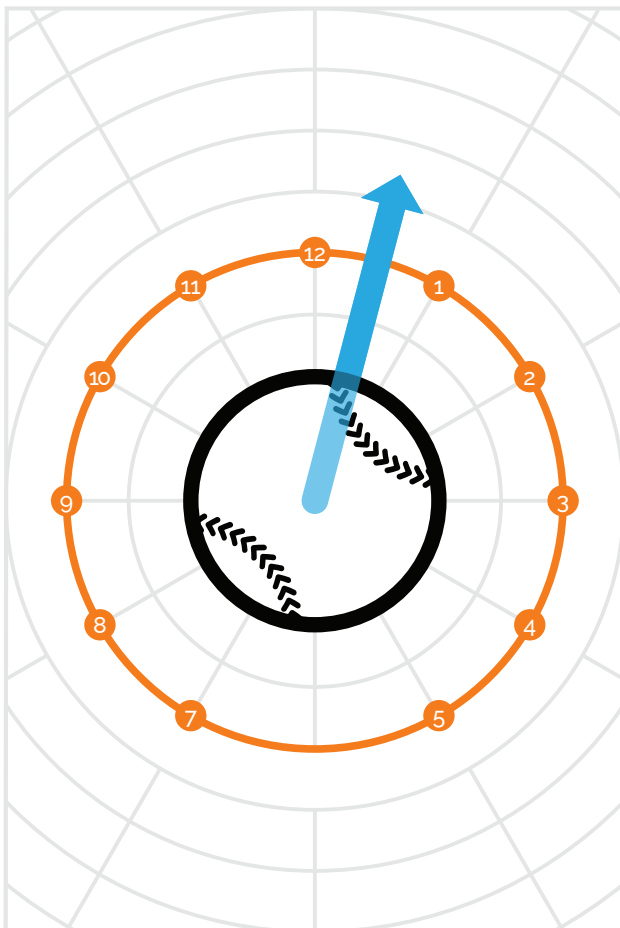




# Spin Direction



*The direction of the breaking force generated by the spin and forward motion of the baseball.*



**NOTE** View from behind the pitcher

## What it is

Spin Direction shows which way the ball is spinning as well as the direction of movement due to spin from the pitcher's view. Spin Direction is expressed as the blue arrow on the Clockface. In the example above, a fastball from a right-handed pitcher, the Spin Direction is about 1:30. From the pitcher's perspective, the lift force on the ball is pushing it up and to the right. For a right-handed pitcher throwing a curve ball, the Spin Direction would be closer to 7:00 as the ball is breaking down and to the left from the pitcher's perspective.

## Why it matters

Spin Direction gives an indication of the shape of the pitch you are throwing and Movement of the ball. Horizontal Spin Direction will create Horizontal Movement while vertical Spin Direction will create Vertical Movement. The Spin Direction is one of the most important factors in determining pitch type. Fastballs have Spin Direction near the Arm Slot. A Spin Direction below the Arm Slot will typically create sink / run while a Spin Direction above the Arm Slot can create cut. As the Spin Direction gets even farther from the Arm Slot you can create breaking balls.

Spin Direction combined with Arm Slot can show whether

a pitcher is keeping his hand behind a fastball for maximum velocity and Spin Efficiency. If the Clockface arrows are not aligned, then the pitcher's fingers may be getting on the side of the ball and "cutting" his fastball. However, a cutter can be an effective pitch when thrown deliberately.

more ride by moving the Spin Direction towards 12:00 or more arm side run by moving Spin Direction towards 3:00 (or 9:00 for a left-handed pitcher). When throwing breaking balls such as a curveball or slider, a pitcher can see whether the ball is breaking in the desired direction.

If a pitcher is working to increase the velocity or Movement on their fastball it can sometimes be effective to work on staying behind the ball. The Spin Direction arrow on the Clockface can be an effective tool to guide you towards this result.

## How to use it

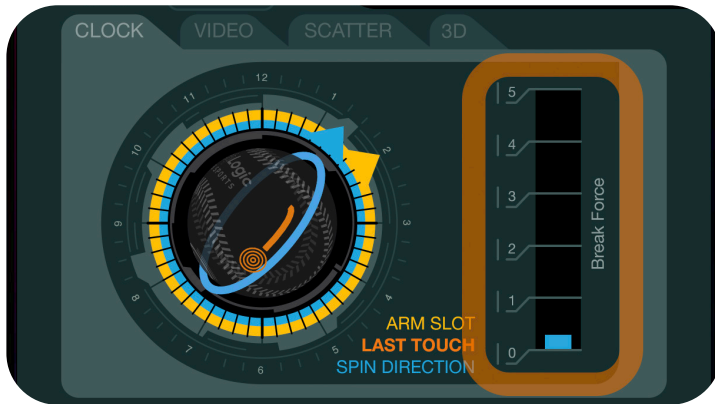
Spin Direction is a major component of controlling Movement. Since the ball moves in the direction of the spin, changing the Spin Direction will shift Movement from more horizontal to vertical or vice versa. For example, with a fastball you can create



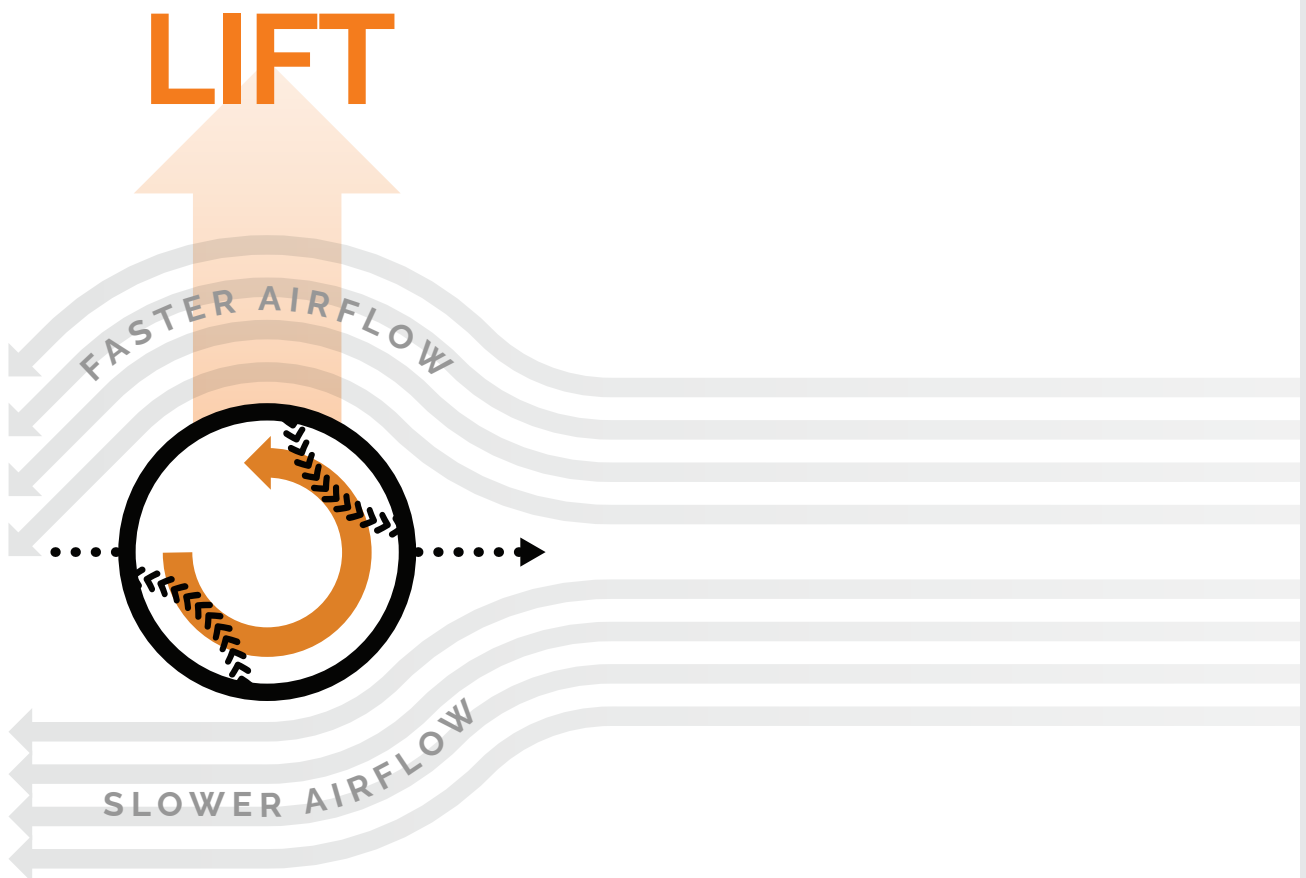
Smartphone View;  
Relevant Metrics Highlighted



# Break Force



*The amount of force generated by the spin and forward motion of the baseball. The greater the Break Force, the more bite in a pitch.*



## What it is

Break Force is the effect created on the ball due to Spin and Speed that creates movement. This is also referred to as the Magnus Effect. It appears as a "temperature gauge" reading from "0" ounces to "5" ounces. This is the amount of force in ounces pushing the ball in the direction of the Spin Direction arrow. The greater the Speed, Backspin, Topspin, and Sidespin, the greater the Break Force on the ball. pitchLogic allows you to see the resulting change in Break Force caused by a change in any of these 4 metrics.

## Why it matters

The greater the Break Force, the more movement a pitch will have. Just because a curveball is spinning in the right direction does not mean it will have a lot of movement or "bite." Pitches with higher Spin Efficiency will have greater Break Force.

## How to use it

If you're trying to maximize ride or arm-side movement on a fastball, increasing your Break Force is the key element. Increasing Spin Rate, Spin Efficiency, or Speed will increase Break Force. Break Force gives you a concise indicator of progress towards your goals on a specific pitch. Pitches such as sliders, which tend to have a higher Rifle Spin, will have lower Break Force. Gravity will always have an effect on any pitch, so even breaking balls with very low Break Force will appear to drop. By increasing Break Force the pitch will have a more pronounced downward Movement.

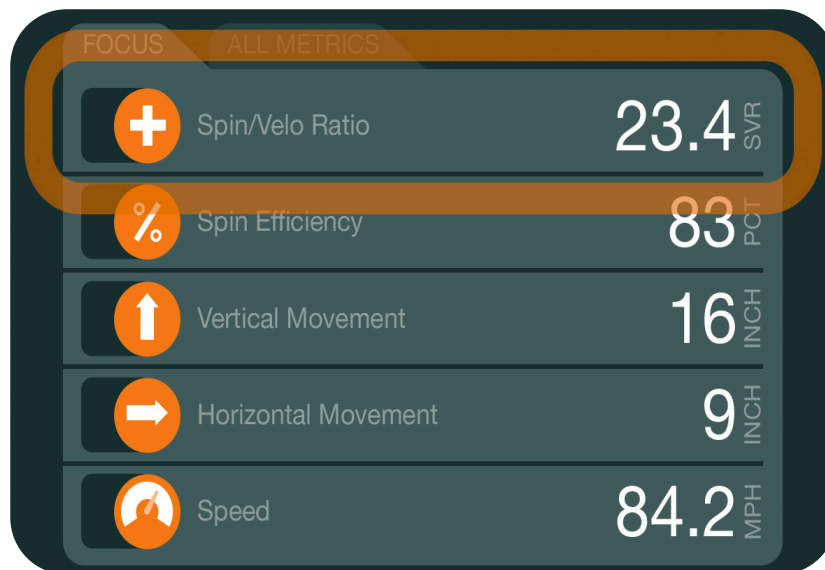


Smartphone View;  
Relevant Metrics Highlighted





# Spin / Velocity Ratio



*The ratio comparing spin rate to velocity for analyzing pitch effectiveness.*

## What it is

The Spin Velocity Ratio (SVR) is designed to make understanding and utilizing spin data easier for players and coaches. SVR represents the ratio of Total Spin to pitch speed, providing a consistent measure of spin performance regardless of the pitch speed. This allows for more accurate comparisons across different pitchers and various pitching conditions. For instance, an average four-seam fastball will

have an SVR of 24, whether thrown at 60 MPH or 95 MPH, making it a reliable metric for evaluating spin efficiency.

## Why it matters

Traditional Total Spin metrics can vary significantly with pitch speed, making it challenging to assess a pitcher's performance, especially in lower effort situations or among players with varying velocities. SVR offers a standardized measure, facilitating more meaningful comparisons and tracking progress over time. This consistency is particularly useful for younger players and those in training, as it helps in setting realistic goals and identifying areas for improvement. Additionally, SVR aligns closely with MLB standards, enabling amateur players to gauge how their pitches stack up against professional benchmarks.

## How to use it

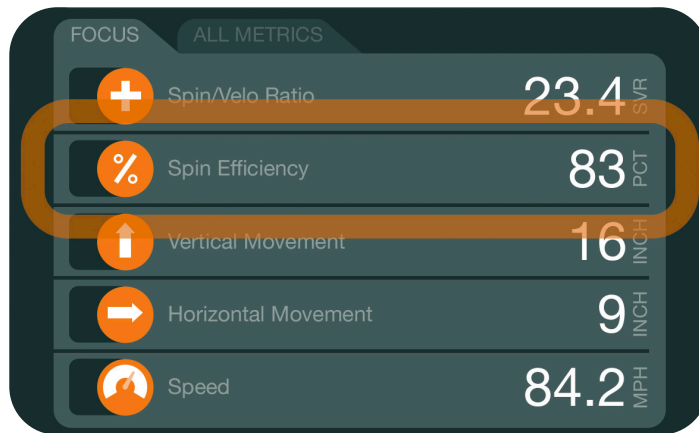
To utilize SVR in your training, simply throw your pitches as usual and review the SVR data provided by the pitchLogic app. For each pitch type—whether it's a fastball, slider, or curveball—the app will display the SVR alongside other key metrics. Compare your SVR to typical values to understand how your spin efficiency measures up. Use this information to refine your technique, aiming to achieve or exceed typical MLB SVR values. The pitchLogic app also includes Total Spin data for those who prefer traditional metrics, accessible under the "All Metrics" and "Focus" tabs.



Smartphone View;  
Relevant Metrics Highlighted



# Spin Efficiency



*The percentage of Total Spin that is generating Break Force.*

## What it is

Spin Efficiency is the percentage of Total Spin that contributes to creating Movement on a pitch. The higher the percentage, the more the ball will move up, down, left or right. Only Backspin, Topspin and Sidespin create force on the ball to make it move up. Riflespin, also known as gyro spin, creates no lifting force on the ball and reduces Spin Efficiency. Pitches with a high Spin Efficiency are sometimes described as spinning true or clean. Pitches with a low Spin Efficiency are sometimes described as spinning off axis or tilted.



## Why it matters

The higher the Spin Efficiency, the more movement on the pitch. Higher Spin Efficiency also tends to create more velocity on a four-seam fastball. If the ball has only Riflespin, which spirals like a football or bullet, there is no Movement on the ball from the batter's viewpoint. This pitch would have 0% Spin Efficiency. The higher the Spin Efficiency, the more movement on the pitch. Higher Spin Efficiency also tends to create more velocity on a four-seam fastball.

## How to use it

When working on a four-seam fastball, increasing Spin Efficiency is a common priority. This creates more Movement in the direction of the Arm Slot. Players with high Arm Slots will create more ride, and players with low Arm Slots will see more arm side run. Keeping your hand "behind the ball" all the way through the release will improve both Spin Efficiency and Speed. Generally, aligning the Spin Direction with the Arm Slot will result in higher Spin Efficiency. The Last Touch point on the 3D Clockface can also help you visualize where the fingers are

coming off the ball. Coming off the side of the ball will increase Riflespin and reduce Spin Efficiency. This is often referred to as "cutting" the fastball.

With breaking balls, there can be a tradeoff between Speed and Spin Efficiency. This is why curveballs, which tend to have a higher Spin Efficiency, tend to have a lower Speed than sliders, which have a lower Spin Efficiency and higher Speed. Getting "over the top" or "around" the ball on a curveball tends to create a higher Spin Efficiency and more Movement but can also reduce the pitch's Speed.

$$\frac{\text{Combined Backspin \& Sidespin}}{\text{Total Spin}} = \text{Spin Efficiency}$$

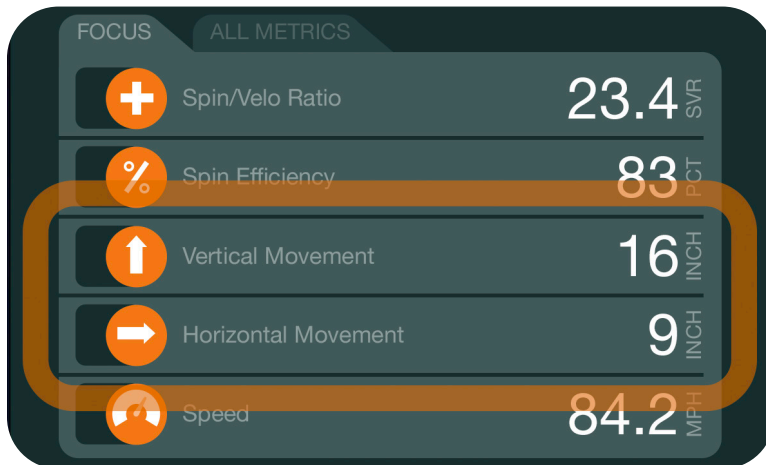


Smartphone View;  
Relevant Metrics Highlighted





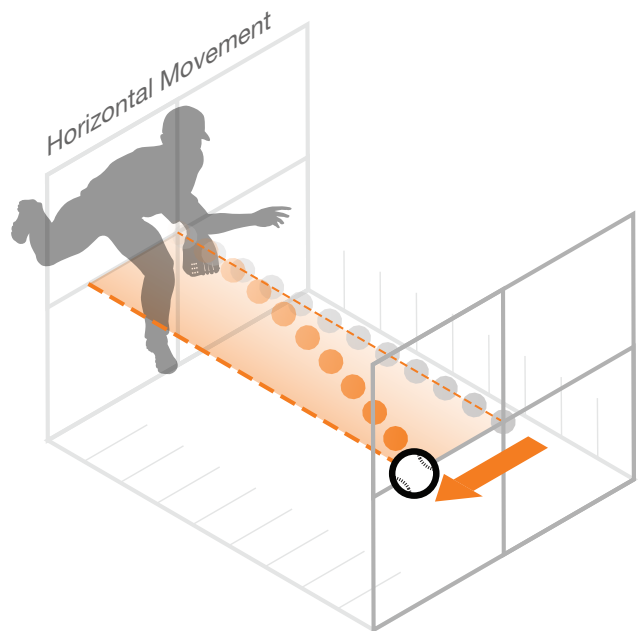
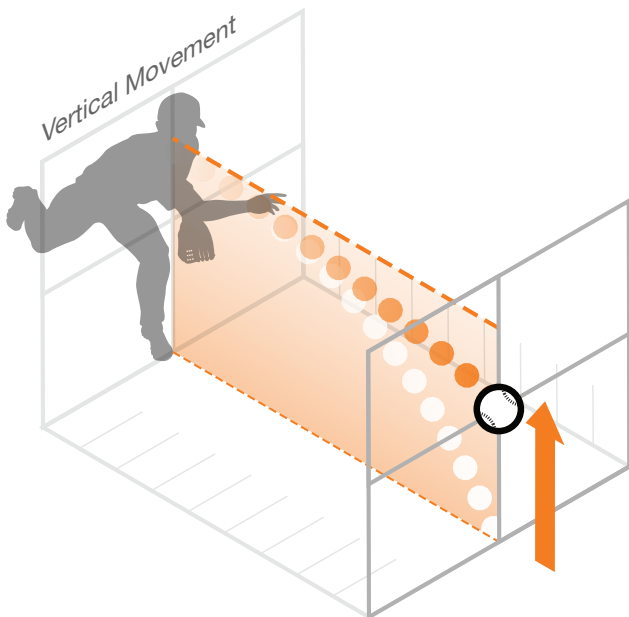
# Movement



The **vertical distance** the ball moves away from the path it would have taken with zero Backspin.

The **horizontal distance** the ball moves away from the path it would have taken with zero Sidespin.

Movement is captured at 55 feet for all throws.



## What it is

The flight path of the ball is affected by such factors as speed, spin, gravity, and even wind. We measure the factors that the pitcher controls: spin and speed. Spin and speed create a force on the ball known as the Magnus force. Movement is the motion of the ball caused by this force. A ball that only drops due to gravity would have no movement. We separate Movement into horizontal and vertical components.

### Horizontal Movement

(*left or right*) is measured in inches. It is shown as a positive number when moving to the pitcher's right and negative when moving to the pitcher's left.

### Vertical Movement

(*up and down*) is measured in inches that a pitch has due to the Lift Force on it. It is shown as a positive number when moving up and negative when moving down. The effects of gravity pulling a pitch down are not part of this metric.

## Why it matters

The amount of Movement on a particular pitch helps determine how effective it will be. It is also one of the primary distinguishing factors between different types of pitches. For example, the Movement on a typical fastball is up and to the pitcher's arm side. Keep in mind the ball will still drop due to gravity. The Movement on the typical curveball is downward and towards the pitcher's glove side.

## How to use it

When experimenting with different grips and techniques, you can see the amount and direction of Movement. By looking at their Movement, pitchers can fine tune the separation between different pitch types and measure the consistency within a pitch type.



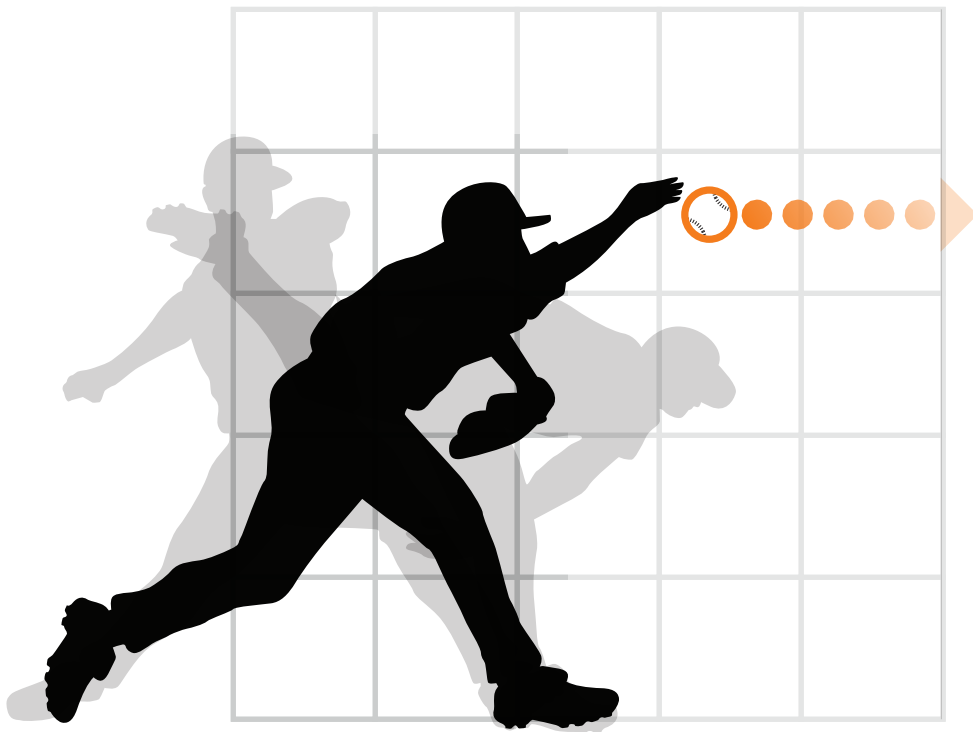
Smartphone View;  
Relevant Metrics Highlighted



# Speed

FOCUS		ALL METRICS	
	Spin/Velo Ratio	23.4	SVR
	Spin Efficiency	83	PCT
	Vertical Movement	16	INCH
	Horizontal Movement	9	INCH
	Speed	84.2	MPH

*The speed of the ball at the release point.*



**NOTE** View from the side

## What it is

Speed, also known as velocity or velo, is measured in miles per hour. Pitching speed measurements from a variety of different technologies may produce differing results. The pitchLogic ball consistently measures the speed of a pitch one millisecond (1/1000 seconds) after it leaves the pitcher's fingertip rather than at inconsistent points down range between the pitcher and catcher. This results in a Speed reading which is typically 1-3 MPH higher than other methods. In addition, pitchLogic measures speed at 55 ft and where it would hit the ground.

## Why it matters

Speed tends to be the most frequently used metric when scouts and others are gauging the ability level of a pitcher. Historically this was because Speed was the only quantifiable metric available and is one of the easiest to understand. The greater the Speed of a pitch the less reaction time a batter has to see it and react to it. Varying the Speed of pitches can disrupt the timing of the batter.

just focus on Speed directly, and "throw harder". Metrics such as Arm Slot, Forward Extension, and Spin Efficiency can help a pitcher refine their throwing mechanics and increase Speed without throwing harder.

The difference in Speed between a pitcher's fastball and other pitches is a big part of what makes changeups and breaking balls effective. Tagging your pitches with their Pitch Type is a good way to track the Speed differences.

## How to use it

Increasing Speed is one of the most common goals for pitchers. This can be accomplished in a variety of ways, but it is rarely effective to



Smartphone View;  
Relevant Metrics Highlighted

PITCHLOGIC

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# Social Sharing



*Share your throw metrics and videos through email, text or social media.*

*You can also export video to your camera roll.*



## What it is

Social sharing enables you to quickly and easily post videos and screenshots from the pitchLogic app to any of your social media accounts, send them via text or email, or save them to your device. Videos shared with this feature will include an overlay with some basic pitch data displayed.

## Why it matters

Social media has become a popular platform for players to showcase their skills and get the attention of recruiters. Measurable pitching data has become an important segment of the overall player profile. Recruiters are looking for objective information such as Speed and Spin Rate, and

ideally want to see video with your data for credibility. Recently this has become even more critical, as the ability to assess players in person has been restricted.

Without the ability to meet in person, many coaches and instructors have turned to remote training. Even with regular face-to-face sessions, it can be helpful to get feedback on a pitch while a player is working independently. You can even share data with a coach who doesn't have pitchLogic themselves.

at the right side of the screen in landscape. If the pitch has a video, it will give the option to share the video or a screenshot of the pitch data. Otherwise, it will automatically share the screenshot. Next the iOS or Android sharing panel will present sharing options based on the apps installed on your device. You can also select options to save to your device, send as a text message, or send in an email. When sharing a video, a graphic overlay with some of the pitchLogic data will automatically be generated and added to the video.

## How to use it

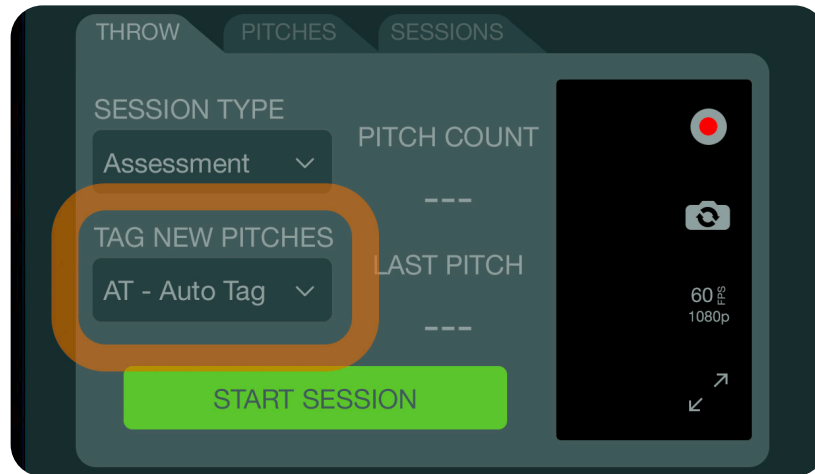
To share a pitch, tap the share button at the bottom of the screen in portrait orientation, or



Smartphone View;  
Relevant Feature Highlighted



# Pitch Tagging



As each pitch is thrown pitchLogic will automatically identify pitch type. Players can also manually select each pitch as they are thrown .

## What it is

Pitch Tagging allows the user to record additional information about each pitch. Automatic Pitch Tagging allows pitchLogic to recognize the type of pitch you have thrown and save it in your history. Auto Tagging uses metrics like Speed (relative to your fastball), seam orientation (to distinguish 4 Seam and 2 Seam Fastballs), Spin Direction, and Spin Efficiency to recognize pitch types. It compares your changeup to fastballs from the same session, so it can correctly identify pitches even when you're throwing at less than

100% intensity. Auto Tagging is the default selection for Bullpen, Flat Ground, and Assessment sessions, but it can always be turned on or off from the Pitch Tagging menu in the "Throw" tab. This way players can manually select the pitch they are throwing.

## Why it matters

Tagging individual pitches makes it easier to reference previous pitches for analysis and comparison. Automatic Pitch Tagging streamlines the identification of pitch types, ensuring accurate and consistent tagging without manual input. This helps players and coaches quickly access and analyze pitch data, so that they can make adjustments and improvements more efficiently. Pitch types are used in the STUFFpL Assessment sessions to provide scores and personalized feedback on each pitch type. Pitch type is also used in the session reports to

provide players with a summary of their metrics on each pitch type.

## How to use it

Automatic Pitch Tagging can be managed in the Pitch Tagging menu found in the "Throw" tab. Here, you can turn Auto Tagging on or off according to your preference. When enabled, Auto Tagging will automatically recognize and tag the pitch type based on the metrics it analyzes during your session. The edit button in the top right of the app can be used to adjust a pitch tag, add a rating, or add a variant. Now that you've tagged the

pitches, either manually or automatically, you can see these tags in a few different places. First, a summary of the pitch information will be displayed under the pitches tab. Tags are also visible in web reports, which can be accessed by pressing "view session report" in the top left of the pitchLogic app. Also, by pressing "menu" then "get CSV data" you can export a CSV spreadsheet of your pitches, which has columns for all of the Pitch Tagging fields.

### SCOUT PITCH RATING SCALE

<b>20</b> Well Below Average	<b>50</b> Average	<b>80</b> Well Above Average
<b>30</b> Well Below Average	<b>60</b> Above Average	
<b>40</b> Below Average	<b>70</b> Well Above Average	

### PITCH TYPES

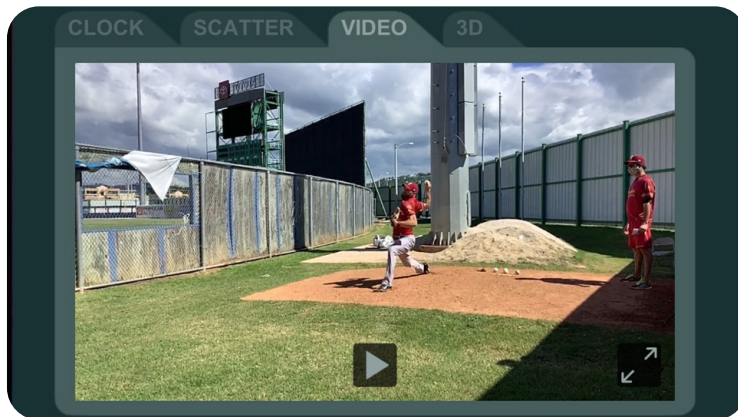
<b>FF</b> Four-Seam Fastball	<b>FS</b> Splitter	<b>CB</b> Curveball	<b>EP</b> Eephus
<b>FT</b> Two-Seam Fastball	<b>SL</b> Slider	<b>KC</b> Knuckle Curve	
<b>FC</b> Cutter	<b>CH</b> Changeup	<b>KN</b> Knuckleball	



Smartphone View;  
Relevant Feature Highlighted



# Video Capture & Playback



## What it is

Video Capture allows each individual pitch to be automatically recorded in separate 5 second clips using the pitchLogic app on your mobile device. The individual video clip of each pitch syncs to the metrics of that specific pitch. Recording in slow motion using a higher Frames Per Second (FPS) setting allows players and coaches to analyze a player's mechanics more closely, with the added capability of scrubbing frame by frame. The video clips with an overlay of your pitch metrics can be shared via social media, email, or text by tapping the Share button on the screen's right side.

<b>Record</b>	Starts and stops the camera	
<b>Camera Select</b>	Selects between the front facing and the rear facing camera	
<b>Playback</b>	Start and stop playback of the captured video	
<b>Frame Rate</b>	Selects frame rate for video capture, to enable slow motion review	<b>240</b> FPS

*These controls enable automatic video capture and playback of pitches. When the camera is running clips will be saved for each throw. Clips are edited automatically by the pitchLogic ball. Pressing play will playback the video for the selected throw. Video clips can be shared by tapping the Share button on the right side of the screen.*

## Why it matters

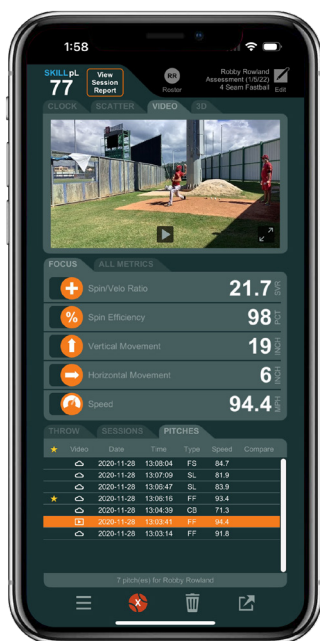
The pitching motion is a series of complicated movements that must be in rhythm in order to be effective. Video analysis is an extremely beneficial method of breaking the delivery down step-by-step. Combining the ease of use of the edited video with the precision of the throwing metrics allows the pitcher and coach to develop a consistent delivery that will produce more effective pitches. Videos of your pitches and metrics can easily be shared with coaches, instructors, and recruiters.

## How to use it

To use the Video Capture feature in pitchLogic plus or pro, open the app, tap on the camera icon, frame up the pitcher in the viewfinder, then tap the record button. The video recording of each pitch will start and stop automatically. There is no need to start and stop the camera, just tap the record button once then throw your entire bullpen session. When you're finished just tap the record button again to stop recording. Use of a tripod isn't required but can produce more consistent video recordings. Each video will automatically be stored in the pitchLogic cloud and can easily be viewed from any device that is logged in to your account.

like. By examining the video "in the moment" a pitcher can recall the feel of the delivery when properly executed and repeat the actions for the most consistent long-term gain. For example, pitchers will frequently drop their arm slot when throwing breaking balls. While the throwing motion may feel the same to the pitcher, video can confirm whether the actual arm slot is consistent across pitch types. Video is a key learning and training tool that allows you to review your own performance and get feedback from instructors and coaches, even in a remote setting.

Every pitcher has an idea of what their delivery should look



Smartphone View;

# pitchLogic

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