How to Read a Trackman Report

Put together by
smileysperformance.com

Why Trackman?

Trackman is the most powerful publicly available tool for developing elite pitchers. When used with expert insight, it unlocks the data behind every pitch.

Design sharper, smarter pitches—and build a repertoire that dominates.

1. All 30 MLB teams use Trackman data and analysis to fine tune player development
2. Top notch facilities, like Driveline and Tread, utilize Trackman in their training routines
3. Over 300 colleges across the nation utilize Trackman in their training and **RECRUITING needs**

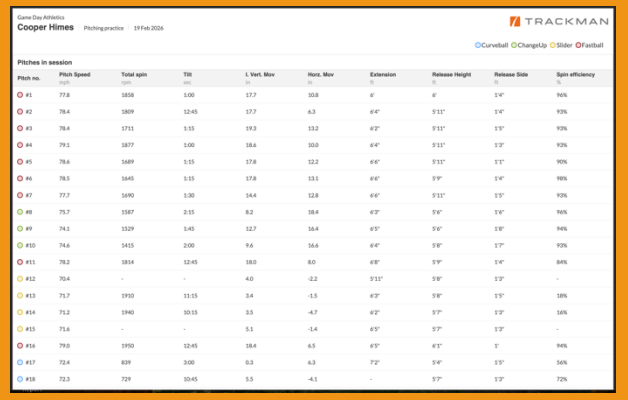
If colleges are going to evaluate their players with Trackman data, then so should you. If you are ready to pitch in college, a Trackman report shows serious desire to play in college not just talk but also walk. An experienced college coach can tell right away from a Trackman report whether you are a skilled enough fit for their team.

- Very few facilities have a Trackman and even fewer have people who truly know how to use the data it provides. That's exactly why using Trackman is so valuable.
- Trackman measures the real physics of ball flight and club delivery. Instead of guessing what is happening in a swing, it provides objective data such as club path, face angle, launch angle, spin rate, and attack angle. These numbers explain exactly why the ball is flying the way it does.
- Without that data, coaching often relies on observation or feel. While experience and visual feedback are important, they can only go so far. Two swings can look very similar on video but produce completely different results because of small differences in club delivery. Trackman removes that uncertainty by showing the precise cause-and-effect relationship between the swing and the ball flight.
- It also allows players to make improvements much faster. Rather than experimenting blindly, players can immediately see how a change in technique affects the numbers and the resulting shot. This creates a feedback loop that accelerates learning and helps players build a more repeatable swing.
- For serious players, Trackman is not just a training tool, it is a measurement system that makes practice more efficient, coaching more precise, and improvement more measurable over time.

Instructions On How To Use This Manual

Read each section carefully. You can download this booklet for free at smileysperformance.com. Write that down right now on your evaluation sheet so you don't forget.

Refer to the following three pages. They are the next three pages in this booklet. This is a Trackman report -your personal report will be in a Google Drive folder shared with your email.



Bullpen Information

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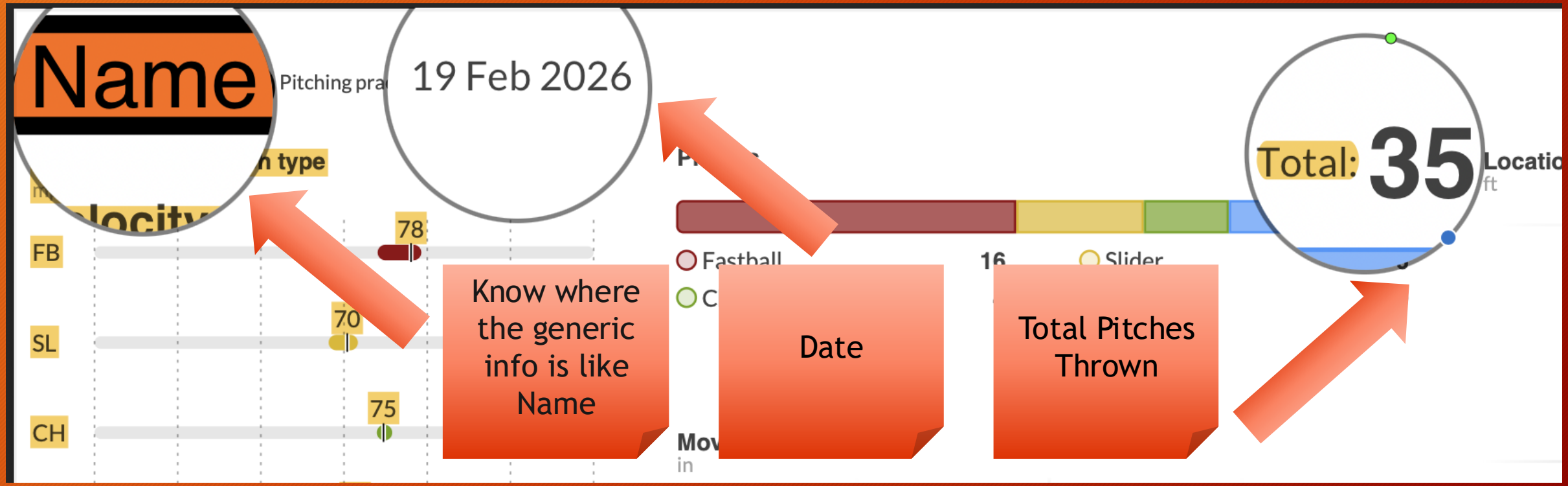
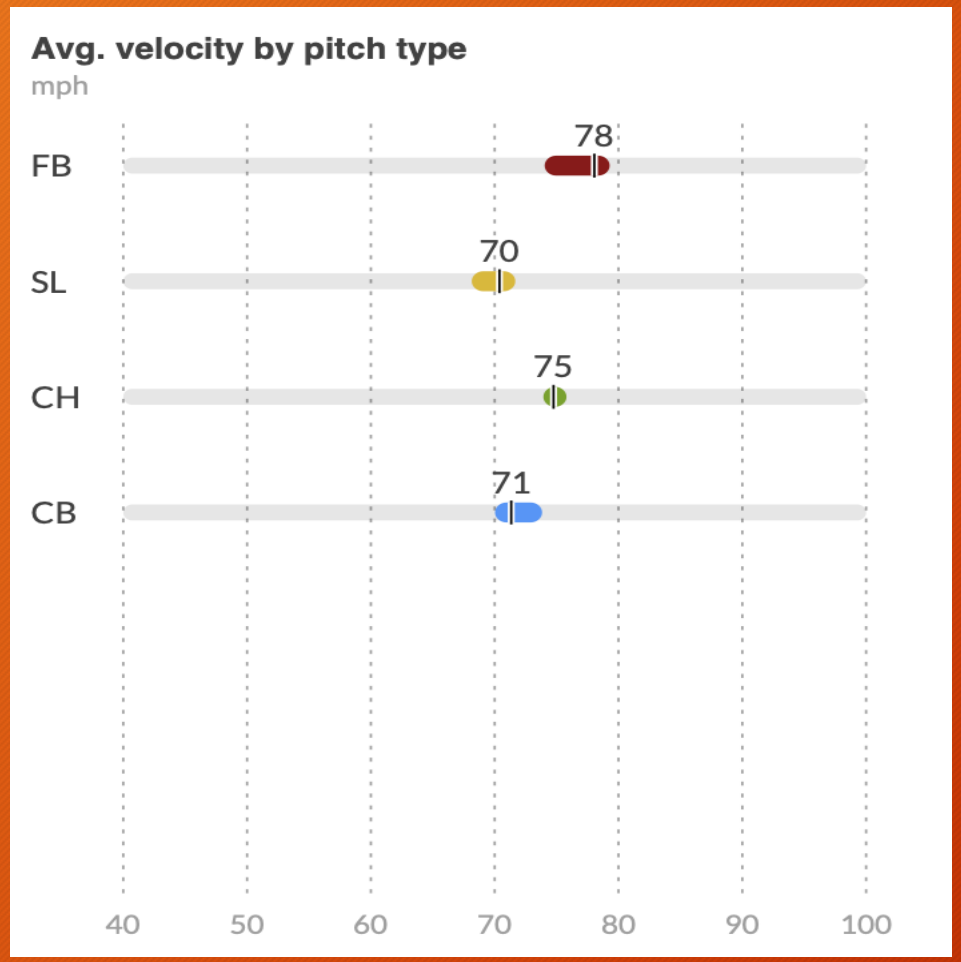
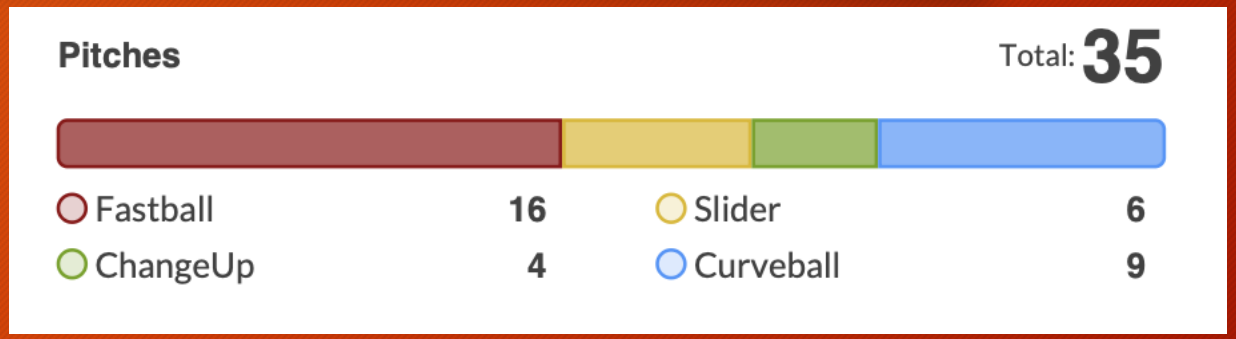


First Two Simple Charts (Beginner)



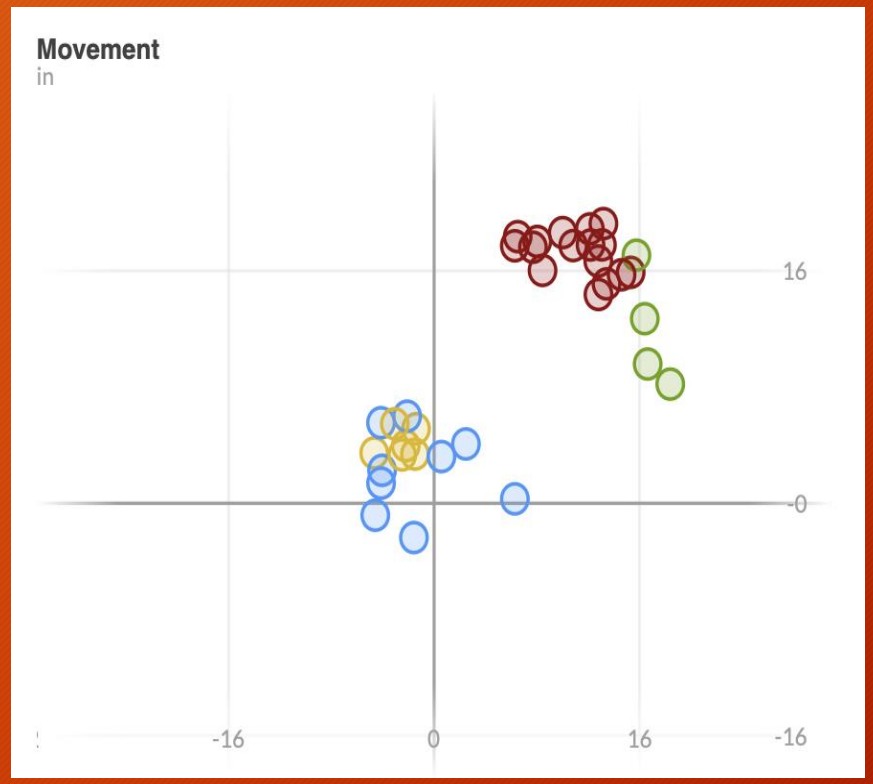


LEFT: Shows the average velocity of each pitch type as well as the spread of velocity. *Ex. The avg. Fastball velo is towards the high end of the range. I either needed a couple more warm up pitches because the very first few were low in velo or I fell off at the end*

Above: Shows the total amount of pitches per pitch type. Use the graphic on the left to match color. *For colorblind people:* The order of rows on the left is transposed to colors. FB is the first color (red), SL is the second color (yellow), and so forth.

Movement Plot (Advanced)(Pitcher View)

Y-Axis: Gravity causes every pitch to drop to some extent. This movement plot takes out gravity and just shows movement caused by all the spin metrics.



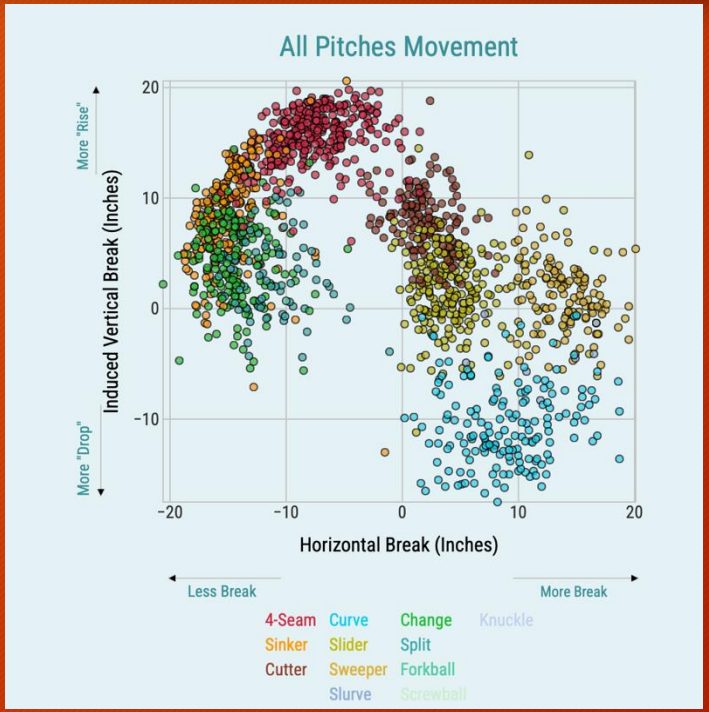
X-Axis: How much tail or cut you have on your pitches in inches. Very Intuitive. Either you have tail or cut.

One thing to note: No pitcher has a 90-degree arm angle (meaning straight in the air over their head). Your arm slot should be aligned with your shoulders. This makes it almost impossible to get a 90-degree arm angle.

What does this mean? It means that the way your arm and consequently your hand and fingers are positioned, you will naturally create tail when trying to throw a true four seam. Even if your fastball came out of your hand perfectly, it will still have movement that will cause it to tail. On the next page you can see this by the average HB of a four-seam fastball.

2025 MLB RHP Movement Plot (Catcher View)

Pitch Type	AVG IVB	AVG HB
Four Seam Fastball	15.5 in	7.8 in
Sinker/Two-Seam FB	8.2 in	14.9 in
Cutter	8.1 in	2.5 in
Slider	1.7 in	4.6 in
Sweeper	1.2 in	13.9 in
Splitter	3 in	11 in
Change-up	4.3 in	14.4 in
Curveball	-10.3 in	9 in



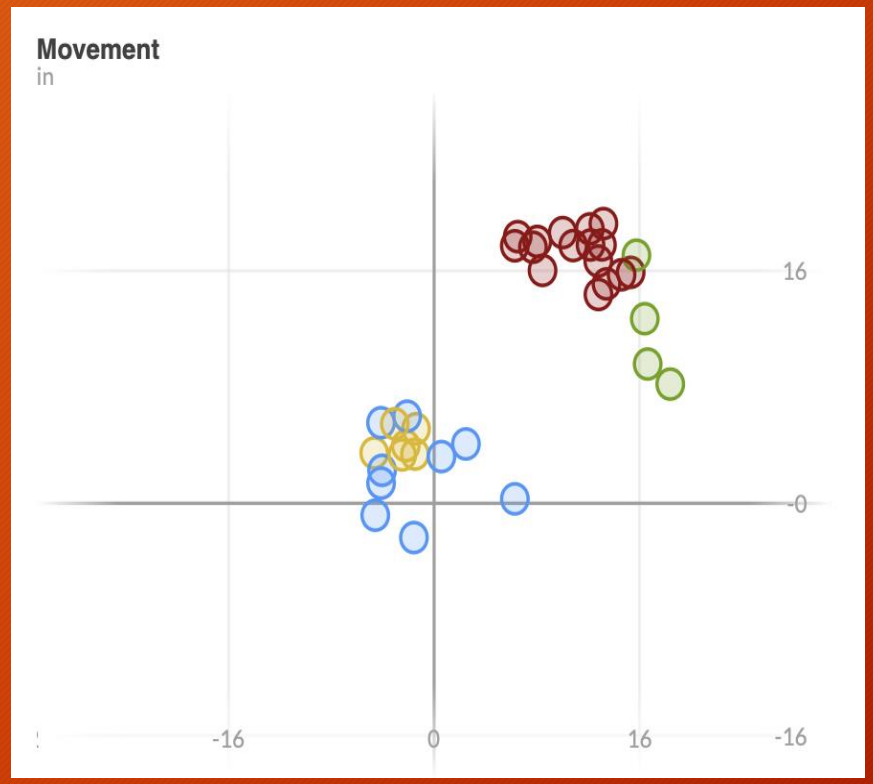
In the MLB, velocity plays a huge role. Just because you have a fastball that has MLB movement does not mean your fastball is MLB level. Velocity, release metrics (height, extension), and how the ball approaches the plate all need to be looked at before making an assessment.

When comparing your movement to this MLB baseline, you need to consider the purpose of each pitch. For example, a four-seam fastball is supposed to have as much ride or IVB as possible, so being above the AVG IVB is a good thing. However, for a change-up it most likely is a bad thing if your IVB is much higher than the MLB AVG. Know how each pitch is supposed to move and consider this when comparing. The other major caveat is that you can evaluate a pitch in a vacuum, but you need to consider your entire repertoire. For example, having a slider at the MLB average and a bad sweeper that has an IVB of 2 and a HB of 7 isn't a good thing. The sweeper will look super similar in terms of movement profile to your slider, making your slider and your sweeper less effective.

Evaluating Pitches on a Movement Plot

First thing to look for is **precision**. This is different than accuracy. Accuracy is how close you are to your target (strike percentage, hitting your spots). Precision is how close together your pitches are (are you getting the same action on all pitches of the same pitch type).

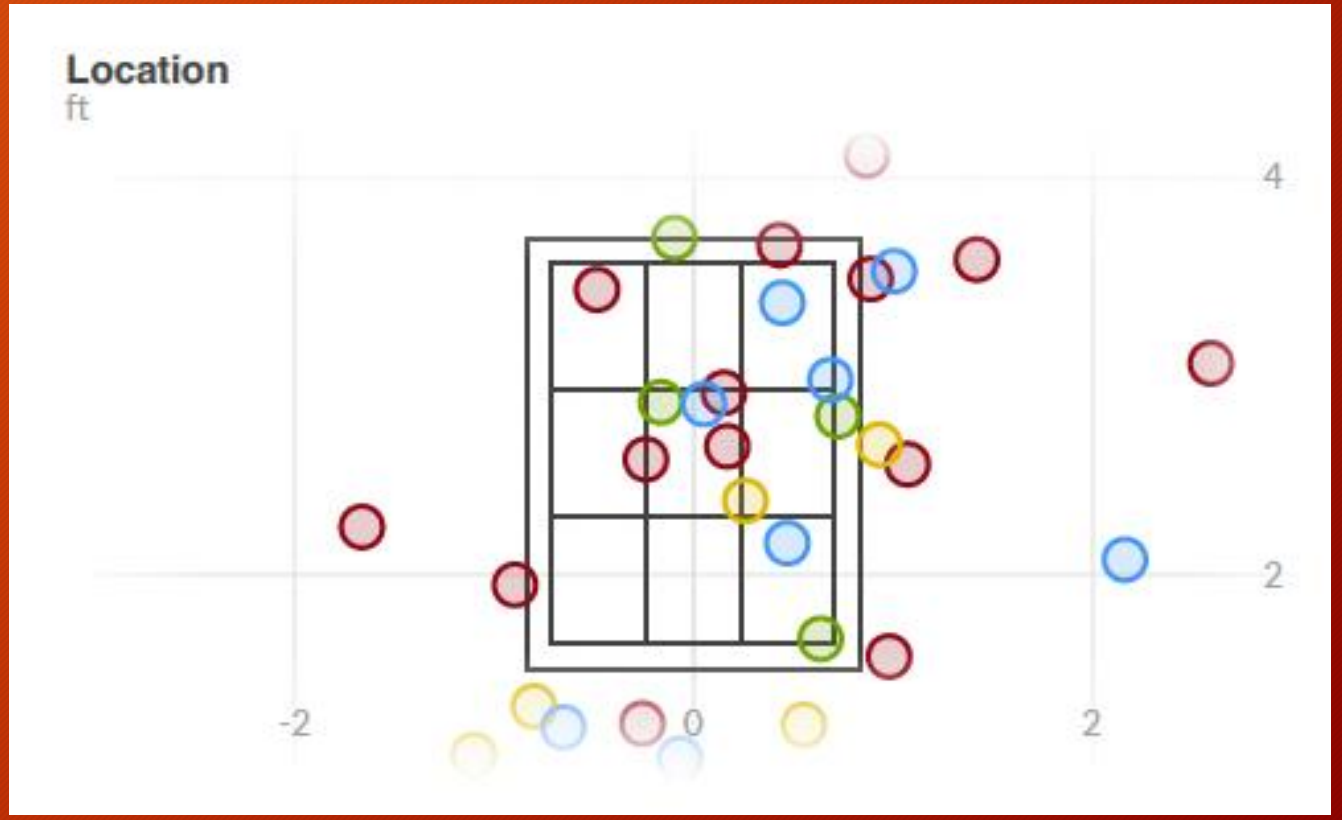
On this chart, precision shows up visually through the spread of dots. For example, in red is this pitcher's four seam fastball. For the most part, he is precise and is getting repeatable movement. This is a good thing. If you examine all the blue dots (his curveballs thrown) you can see more of a "buckshot" spread. This is less ideal. The more repeatable your pitches can be, movement-wise, the easier it will be to throw strikes. **This chart doesn't show location. Only movement.**



The next thing to look for is proximity. What this entails is looking for how close in movement are his pitches to each other. For example, his sliders and change-ups are overlapping with his curveballs and fastballs, respectively. This is not good. Having two pitches that move the same, even if there is a significant velocity difference, is not ideal. For this pitcher, I suggested he choose either his slider or curveball and work to get his change-up distinctly different than his fastball. His slider is more precise than his curveball and therefore, more repeatable. Having data makes some decisions easy. With a Trackman, it is easy to tell movement with the instant feedback, but when you play catch you can get visual feedback from your catch partner. This is good enough, but the big take-away is that you know how your pitches need to move and how to develop a well-rounded repertoire.

Location Chart

This is the Trackman strike zone. There is one very important thing to understand with this zone. It is a 2D universal strike-zone. **This is not the true strike zone**. The MLB automated strike zone is based purely on the hitter's height. The bottom is 27% of his height and the top is 53.5%. Also, by rule, the strike zone is a three-dimensional box above the entire plate, which is 17 inches wide and 17 inches deep at its point. I would not use this plot that much unless you can see trends on your misses. For example, you could miss with your change-up arm side a lot more often than glove side. Therefore, in the next pen, you try to work on your arm-side change-up.



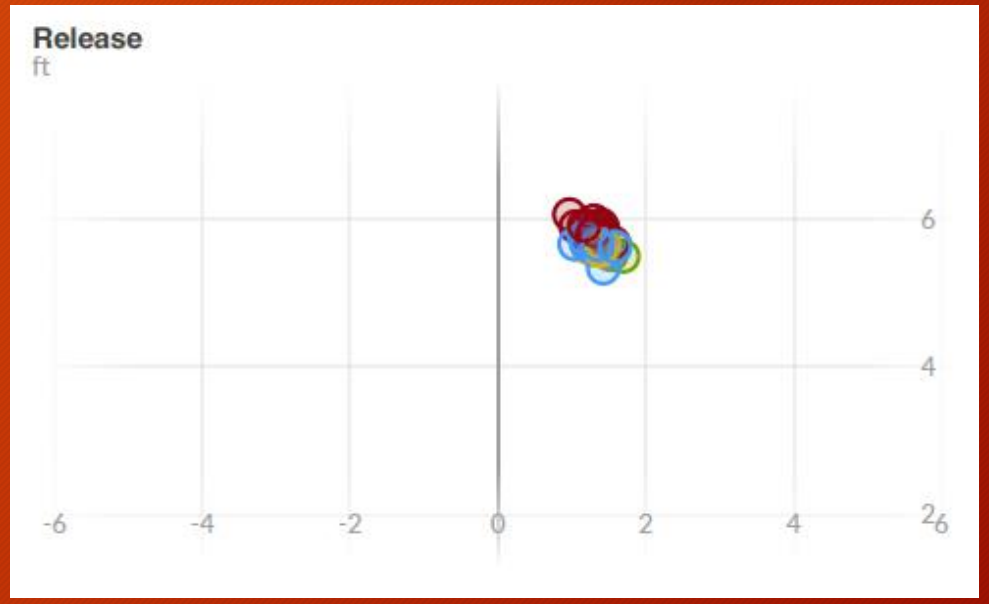
Release Metrics and Vertical Approach Angles

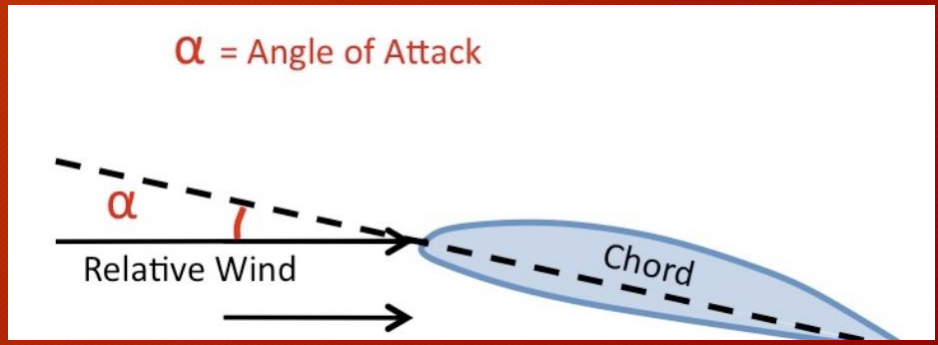
The few things you need to know about your release are you need to be **consistent and precise**. You don't want your release to be significantly different when you throw your curveball. College batters will pick up on this, and it will affect your success.

The next thing to consider is how you can use your release components to your advantage. For example, if you are similar to Trey Yesavage and have a super high release height, you may want to change what pitches you throw and where you throw them. Yesavage is around 7.1-7.2 ft for release height. With a high release height, your pitches will have a steeper path from the hand to Homeplate. Picking a pitch type with a lesser IVB (sinkers, 2 seams) will exaggerate this.

The MLB average attack angle for a hitter is 8-10 degrees. The less your pitches match this angle, the better. You can either have a super steep vertical approach angle or super flat vertical approach angle on your pitches. You want to stay away from the hitter's average attack angle.

Conversely, if you have a low release height, then you may want to consider throwing a four-seam fastball. If you release a four-seam fastball from a low release height and locate it up in the zone, then that will be harder to hit for a batter because of the disparity of the batter's bat path and your pitch path.





Conclusion

Pitching evaluation using the Trackman can provide valuable insights, however, there are many different metrics that work together to determine whether a pitcher is effective (or not).

While the generic Trackman report, such as the one in your Google Drive folder, highlights some key metrics, there are many others that also play an important role.

If you're interested in learning more about these additional metrics—or how to see, track, and better understand them—please visit my website, smileysperformance.com, for more information about the programs I offer or getting personalized reporting.

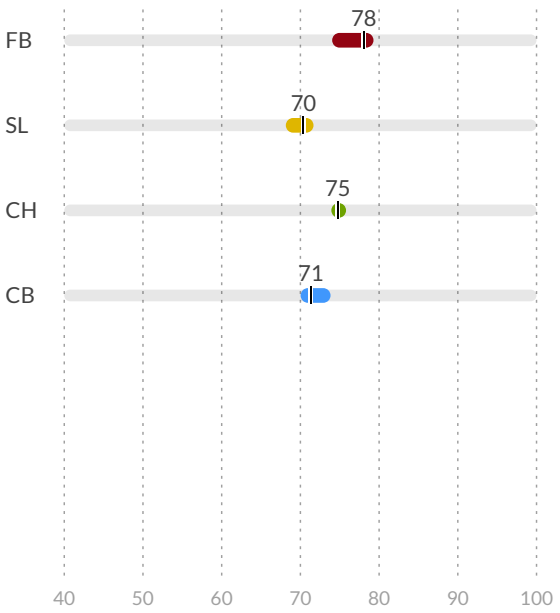
Game Day Athletics

[redacted] | Pitching practice | 19 Feb 2026

TRACKMAN

Avg. velocity by pitch type

mph



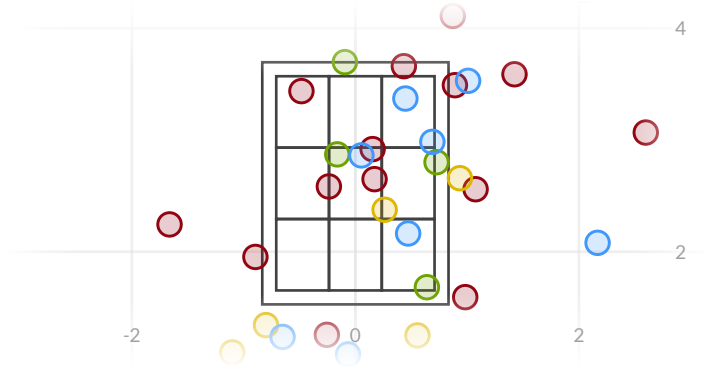
Pitches

Total: **35**

Fastball	16	Slider	6
ChangeUp	4	Curveball	9

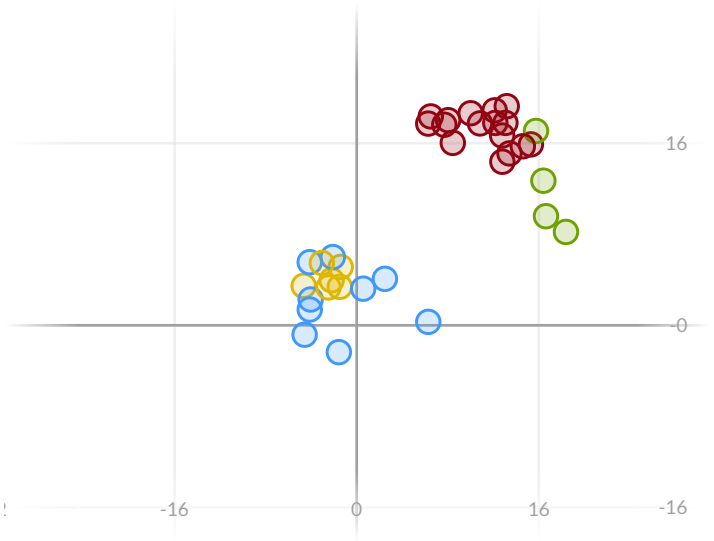
Location

ft



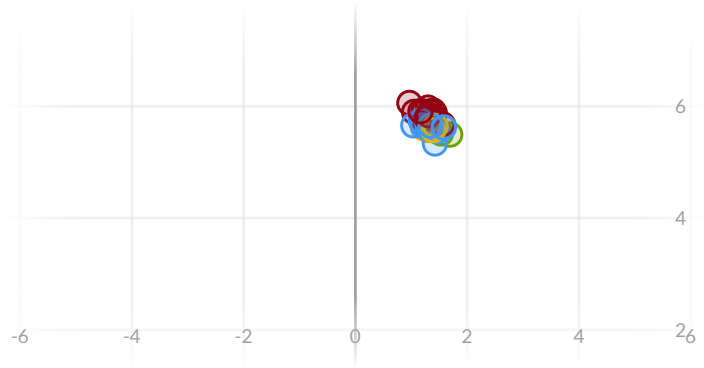
Movement

in



Release

ft



Fastball

Pitch Speed Avg. **78** mph Max. **79** mph

Total spin Avg. **1795** rpm

Stats by pitch type

Pitch type	Qty.	Pitch Speed (mph) Min.	Pitch Speed (mph) Max.	Pitch Speed (mph) Avg.	Total spin (rpm) Min.	Total spin (rpm) Max.	Total spin (rpm) Avg.	IVB (in) Max. abs.	Horz. Mov (in) Avg.	Horz. Mov (in) Max. abs.	Vert. Mov (in) Max. abs.	Rel.h (ft) Avg.	Rel.side (ft) Avg.	EXT (ft) Avg.
Fastball	16	74.0	79.3	78.1	1645.1	1961.4	1795.2	17.2	11.1	15.3	34.4	5.8	1.3	6.5
Slider	6	68.1	71.7	70.4	1858.0	1939.7	1892.9	4.1	-2.6	4.7	56.2	5.6	1.3	6.2
ChangeUp	4	74.1	75.7	74.8	1414.8	1725.4	1564.1	11.9	16.8	18.4	40.8	5.6	1.6	6.4
Curveball	9	70.0	73.8	71.3	690.4	903.7	801.6	2.9	-1.2	6.3	57.4	5.6	1.3	6.8

Game Day Athletics

[redacted] Pitching practice | 19 Feb 2026

TRACKMAN

Curveball ChangeUp Slider Fastball

Pitches in session

Pitch no.	Pitch Speed mph	Total spin rpm	Tilt sec	I. Vert. Mov in	Horz. Mov in	Extension ft	Release Height ft	Release Side ft	Spin efficiency %
#1	77.8	1858	1:00	17.7	10.8	6'	6'	1'4"	96%
#2	78.4	1809	12:45	17.7	6.3	6'4"	5'11"	1'4"	93%
#3	78.4	1711	1:15	19.3	13.2	6'2"	5'11"	1'5"	93%
#4	79.1	1877	1:00	18.6	10.0	6'4"	5'11"	1'3"	93%
#5	78.6	1689	1:15	17.8	12.2	6'6"	5'11"	1'1"	90%
#6	78.5	1645	1:15	17.8	13.1	6'6"	5'9"	1'4"	98%
#7	77.7	1690	1:30	14.4	12.8	6'6"	5'11"	1'5"	93%
#8	75.7	1587	2:15	8.2	18.4	6'3"	5'6"	1'6"	96%
#9	74.1	1529	1:45	12.7	16.4	6'5"	5'6"	1'8"	94%
#10	74.6	1415	2:00	9.6	16.6	6'4"	5'8"	1'7"	93%
#11	78.2	1814	12:45	18.0	8.0	6'8"	5'9"	1'4"	84%
#12	70.4	-	-	4.0	-2.2	5'11"	5'8"	1'3"	-
#13	71.7	1910	11:15	3.4	-1.5	6'3"	5'8"	1'5"	18%
#14	71.2	1940	10:15	3.5	-4.7	6'2"	5'7"	1'3"	16%
#15	71.6	-	-	5.1	-1.4	6'5"	5'7"	1'3"	-
#16	79.0	1950	12:45	18.4	6.5	6'5"	6'1"	1'	94%
#17	72.4	839	3:00	0.3	6.3	7'2"	5'4"	1'5"	56%
#18	72.3	729	10:45	5.5	-4.1	-	5'7"	1'3"	72%
#19	73.8	-	-	3.2	0.6	6'11"	5'8"	1'	-
#20	70.0	772	11:15	6.0	-2.1	6'7"	5'7"	1'6"	74%
#21	78.0	1728	1:30	15.1	13.4	6'8"	5'9"	1'5"	95%

TRACKMAN

Curveball ChangeUp Slider Fastball

Pitches in session

Pitch no.	Pitch Speed mph	Total spin rpm	Tilt sec	I. Vert. Mov in	Horz. Mov in	Extension ft	Release Height ft	Release Side ft	Spin efficiency %
#22	78.8	1710	1:30	15.9	15.3	6'10"	5'8"	1'3"	94%
#23	78.4	1952	1:00	18.9	12.1	6'6"	5'10"	1'5"	97%
#24	74.7	1725	1:30	17.1	15.8	6'7"	5'8"	1'5"	93%
#25	70.8	861	7:15	-2.4	-1.6	7'1"	5'8"	1'4"	72%
#26	71.0	904	10:00	2.3	-4.1	-	5'9"	1'2"	71%
#27	70.2	767	9:45	1.4	-4.1	-	5'8"	1'2"	82%
#28	74.0	1649	1:30	15.7	14.6	6'8"	5'8"	1'7"	89%
#29	75.9	1742	1:15	16.7	12.8	6'8"	5'9"	1'3"	99%
#30	68.1	1858	10:45	3.3	-2.5	6'1"	5'8"	1'5"	-
#31	69.2	1863	11:00	5.5	-3.1	6'3"	5'7"	1'5"	17%
#32	78.8	1940	1:00	16.0	8.4	6'7"	5'10"	1'4"	99%
#33	71.3	690	1:00	4.1	2.5	6'9"	5'7"	1'7"	61%
#34	70.1	851	8:45	-0.8	-4.6	6'6"	5'8"	1'4"	-
#35	79.3	1961	12:45	17.6	7.7	6'11"	5'11"	1'2"	89%