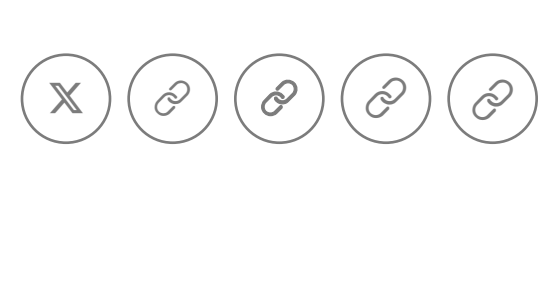


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TECH
Laser-based tracking technology from Athelytix aims to disrupt the status quo in the ball-tracking space
 In a ball-tracking space dominated by camera vision and radar, Athelytix says that lasers provide less "intrinsic error" than the others.

BY TOM FRIEND
 4.21.2023



— Athelytix is eyeing a scale of their patented technology as they aim to educate MLB and pro baseball teams on how they utilize lasers for analytic measurements. ATHELYTIX

Here in baseball's technology age — pitch clocks and PitchCom, to name two — the company Athelytix is throwing something else out there against the proverbial wall: lasers.

In a ball-tracking space dominated by camera vision and radar, San Diego-based Athelytix has developed an outlier product known as The Grid that is currently being crowd-funded under the premise of: lasers outperform everything.

"For us, the No. 1 differentiator is accuracy," said the company's CEO and co-founder Stephen Rosen.

As of now, optical tracking is universally more in vogue, utilized throughout MLB and NCAA baseball programs via mainstream companies such as Hawk-Eye Innovations (using high-speed cameras), Rapsodo (using cameras and radar), **TrackMan** (using cameras and radar), Yakkertech (using stereo vision) and HitTrax (using infrared).



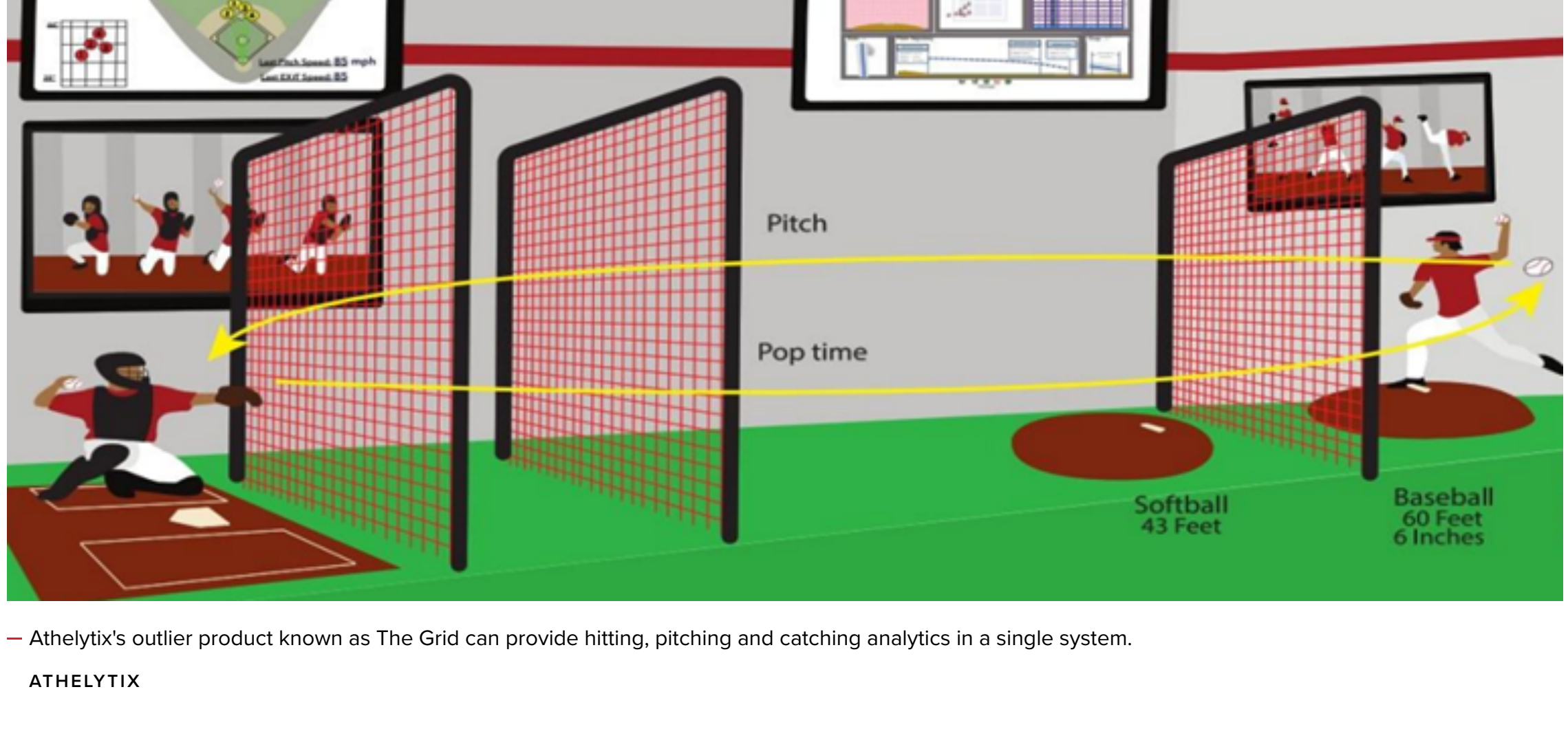
No one has issues with the existing technology, but Athelytix — whose inventor unveiled his earliest iteration of the product back in 2006 — is still convinced lasers are the gold standard of tracking and spent the 2022 MLB Winter Meetings in San Diego spreading the word.

As of now, Rosen says MLB clubs have "shown some interest," but the product's breakthrough hasn't occurred yet and may all boil down to scale and education.

It helps that the inventor, Mike Fontana, once pitched in the college World Series for Long Beach State and later in the **Angels** organization, before becoming an engineer. Looking for ways to better quantify pitching metrics, he asked friends in the aerospace industry for tracking advice, and they unilaterally preferred lasers over cameras, radar and infrared.

Their logic, scientifically, was that lasers provide less "intrinsic error" than the others. Reflective techniques such as video and radar data can be skewed by a Doppler effect while being quantified in motion, whereas lasers minimize the errors that lighting and luminescence can create.

From 2006 through 2010, Fontana researched this and founded the company OnePitch Inc., which relied on the forementioned lasers to collect pitch velocity, pitch location and pitch trajectory. With pitch telemetry a burgeoning business, he sold the company to Rosen, who had coached a local Little League team with Fontana and had a background in tech and video production.



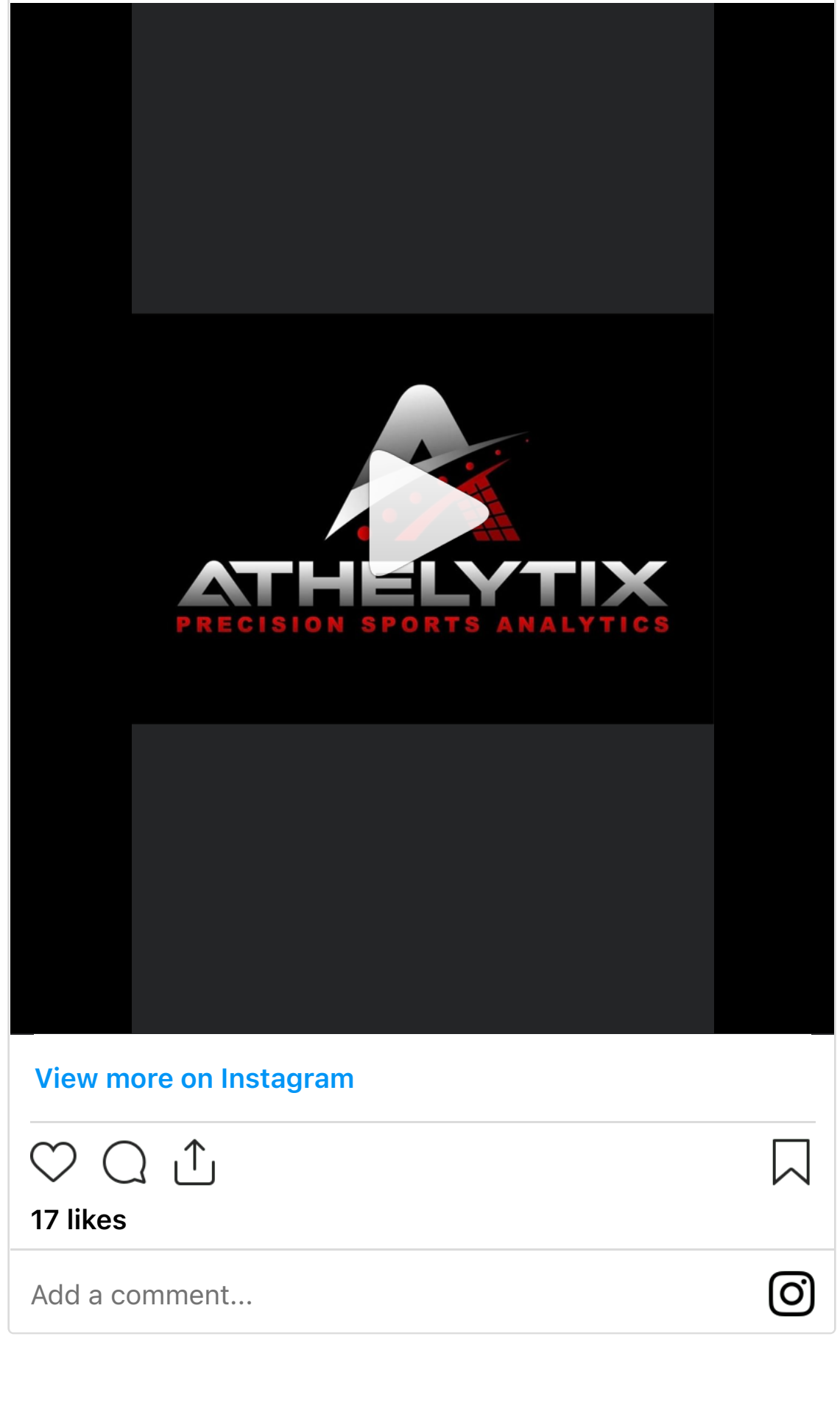
— Athelytix's outlier product known as The Grid can provide hitting, pitching and catching analytics in a single system. ATHELYTIX

Rebranded as Athelytix and iterated further by Fontana and software designer John Stallings, the company finally perfected its product, the Grid, that strategically deploys three lasers to provide bi-directional data. Or, in other words, pitching and hitting analytics all at once.

Generally installed inside batting cages, the first laser is placed at the base of a pitching mound, where it can efficiently calculate release point, release velocity and trajectory. Another laser is inserted eight feet ahead of home plate and a third directly in front of home plate because the bulk of pitch movement occurs in that final eight-foot area.

All told, a pitcher throws through three grids to capture the data, which is available in real-time on a computer monitor and, down the road, will be sent up to a cloud to be obtainable via an app. But the key bonus is that a hitter can stand in the batter's box for that same pitch and use the three grids to swing and determine their exit velocity and launch angle.

Along with that, algorithms can deliver a spray chart on the monitor, telling the hitter whether it was a ground ball, line drive, fly ball and how far the ball would have traveled. Or in other instances — when there is a catcher behind home plate — the lasers can be utilized to calculate pop time.



"Why are we different from some of the others, is the environmental conditions and Doppler effect," Rosens said. "When you use infrared, it's all inside because infrared is impacted by ambient light so you can't be outside. Ours is a beam interrupt. So you have the Grid and the ball is going through the Grid. As it goes through the grid, it's pummeled. It's constantly pinged a gazillion times by the lasers, both horizontal and vertical.

"And so we're able to capture that detailed accurate motion of the ball. It doesn't care whether you're inside or outside. It doesn't care whether it's hot or cold. It doesn't care if it's raining. It doesn't care if it's a bright sunny day or a cloudy day. Because it's a beam interrupt, you don't have to worry about any of those Doppler kinds of effects."

Rosen looked around during the 2022 MLB Winter Meetings and noticed again there was no

other laser technology under display. But The Grid does not capture spin rate like Rapsodo does or swing plane like Blast Motion does. So, as his business continues to iterate, he has made contact with some of those companies in hopes of perhaps obtaining their APIs. In a perfect world, the Grid can aggregate other metrics alongside its own data and create cloud-based videos with data from various companies labeled on top.

In terms of MLB, there have been discussions about installing the lasers in bullpens, which would be perfectly scalable. Athelytics could beam the lasers across three mounds for instance, eliminating the need for extra Grids and delivering bullpen data from three different pitchers at once.

The cost of the Grid, Rosen said, is not prohibitive, and the goal is to erase concerns that lasers are too complex to go into the mainstream of baseball.

"Trust me, if you walk in the middle of a laser and look down, they're not gonna burn your head, you know. They're not gonna burn your eyes out. It's not what everyone thinks."

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