



Implementing a Data-Driven Hitting Development System

Aaron Rhodes
Driveline Baseball



Overview

- ***What*** a data-driven hitting development system means
- ***Why*** you should use a data-driven hitting development system
- ***How*** you can implement a data-driven hitting development system



Relevance

- Concepts and processes that can be applied immediately
- There's always room to grow
- Good systems contribute to both winning and better player development



Why This is Something I Care About

- Bad/hurt player
- Came to Driveline in 2019
- Fortunate to start working here a few months later
- From Driveline – A lot of experience talking and working with coaches
- From a player perspective – Things I wish I knew earlier in my career





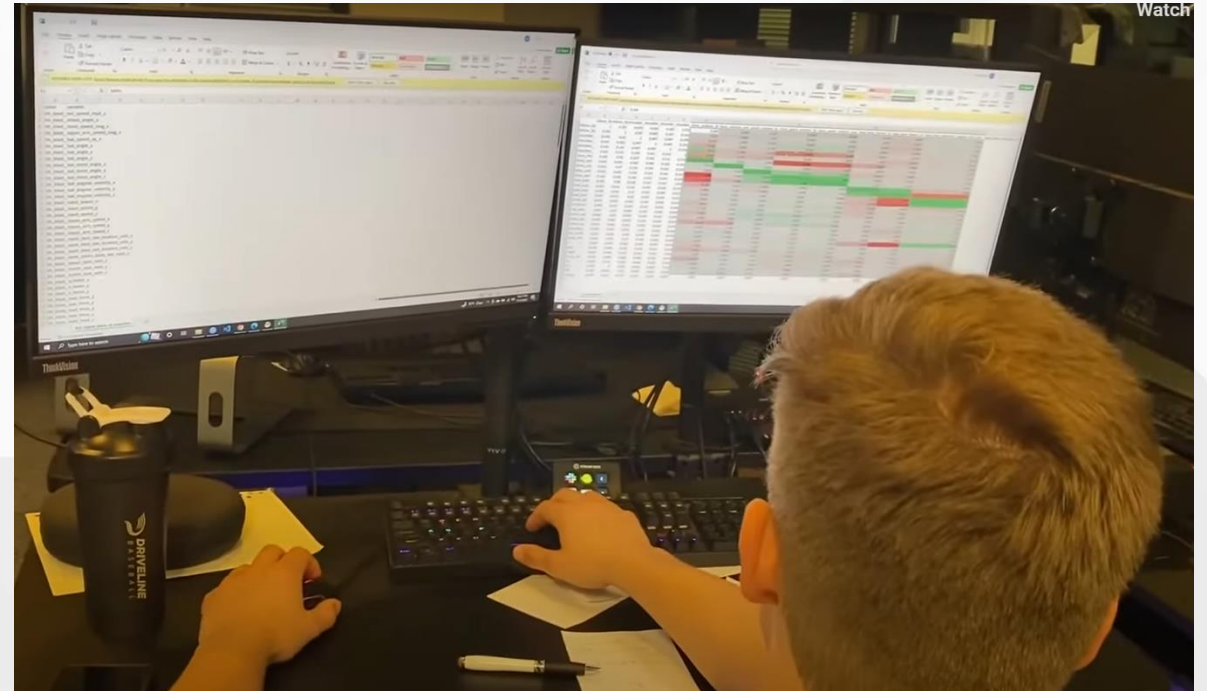
What a data-driven hitting development system means





Let's Talk About Data

- It's not about just collecting data, it also needs to be used
- Data is here, either embrace it or let others pass you
- Data isn't a replacement for good coaching, it's an enhancer
- Data should assist with player development





Data Sources

- Bat Sensor Data
 - Blast, Diamond Kinetics
- Launch Monitor Data
 - Hittrax, Rapsodo, Trackman
- Lifting Data
 - Tracking weights, force plates, speed gates, etc.
- Health Data
 - ROM testing, On Base U, etc.





Environment is Key

- Physical
 - Training space layout
 - Technology and equipment
- Cultural
 - Embrace challenge
 - Failure isn't inherently bad
 - Embrace data
 - Competition is good
 - Cue culture





Training Implements

- Training Bats
 - Overload/Underload, Long/Short, Skinny, etc.
- Variable Balls
 - Hitting PlyoCare balls, Smash Factor Balls
- Pitching Machines
- Baseball Technology
 - Blast, Hittrax, etc.





Why you should use a data-driven hitting development system





Coaching Goals

- We want hitters to
 - Perform at their best when it matters most
 - Be comfortable in variable in-game situations
 - Help us win games
 - Get the most out of their career
- How do we do this?
 - Design our environment with these goals in mind
 - Tons of experience training in an environment MORE CHALLENGING THAN THE GAME





Why Data Matters

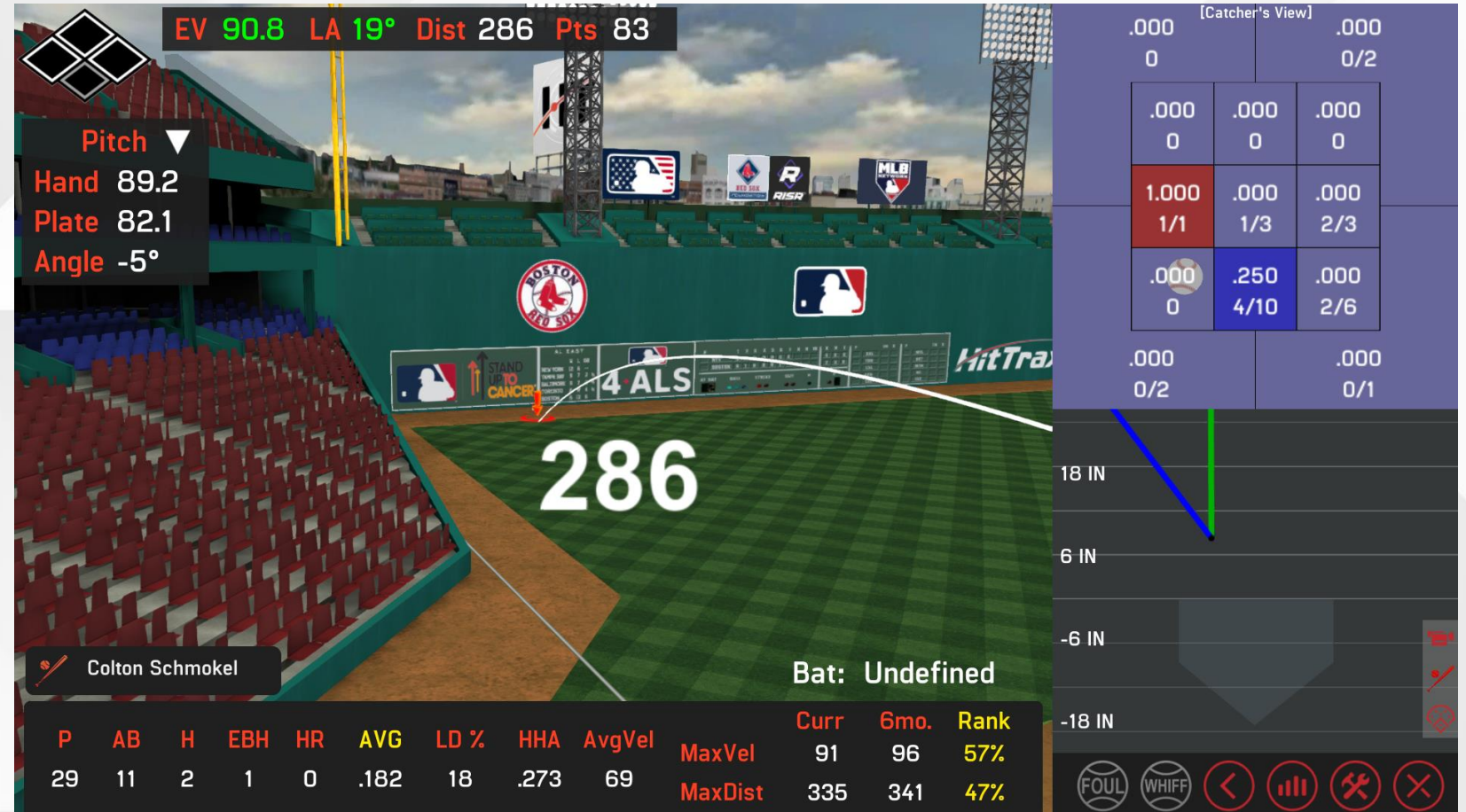
- Tight Feedback Loop
 - Accelerates player changes
- Reference points throughout time
- Can track progress over time
- Metrics matter to move to the next level





Key Metrics

- Bat Sensor Metrics
 - Bat Speed
 - Attack Angle
 - Time to Contact
- Launch Monitor Metrics
 - Exit Velocity
 - Launch Angle
 - Spray Angle
 - Point of Contact





Lifting/Speed

- Especially at the younger level, developing athletes is key
- We see strong correlations between peak power and bat speed
 - Bat speed is strong correlator to exit velocity, which makes more productive hitters
- Physicality is key
 - Being a better athlete gives you a better chance to be a better baseball player





Take Recovery and Workload Seriously

- Plan for intent and volume
 - Swinging
 - Overall workload
- Warmup and recovery is important for hitters too
- Sleep, nutrition, and hydration are critical





How you can implement a data-driven hitting development system





Budget Levels

You can create a data-driven hitting development system no matter your budget!



Bat Sensor Implementation

- Big budget
 - Sensors for every player
- Medium budget
 - A handful of sensors for players to share
- Small budget
 - As little as one sensor





Launch Monitor Implementation

- Big budget
 - Hittrax Unit(s)
- Medium budget
 - Rapsodo Unit
- Small budget
 - Focus on bat sensors





Training Gear Implementation

- Big budget
 - Pitching machines (iPitches), get enough gear that all players can access
- Medium budget
 - Still get pitching machines, training gear
- Small budget
 - Leverage mixed BP, can even make homemade training bats if your budget is zero





Coach Education

- Driveline PLUS
- Coaching Certifications
- Blog





Coach Buy-In, Athlete Buy-In

- Important to show athletes you're invested in them!
- Athletes are going to seek help from you or others, support them





Tying it All Together

- A data-driven hitting development system
 - Requires collecting and using data
 - Is critical for player development
 - Is something you can do at any budget





Resources

Come see us at the booth, we'd love to help out!

