

Sales Business Development Plan

Product: Wearable Umpire Technology (Smart glasses to see the strike zone box, and a chest protector with sensors that tracks the pitch for analytics)

Sales target: Sony (Hawk-Eye Division)

1. Industry Overview

The sports industry has become fueled by technological advances to expand and perfect the game. Technology that is fueled by AI, data analytics, computer and camera vision, etc. Has become integral to all major sports in the world. Specifically in baseball, there has become a demand for more accurate and transparent officiating when it comes to umpires. Throughout recent years, many types of replay and challenging rules have been implemented to use cameras and technology to review calls. Next year as well a challenge system for balls and strike calls will also be implemented. However, although challenging, these calls help; there has not been a way to improve the officiating made by the human umpires themselves. You can't challenge every call, and because of these, "Robo Umps" have been discussed more and more by fans and players who want more accurate calls throughout a game. Sports officiating technology has also been projected to grow significantly, with the market expected to surpass \$55 billion by 2023. That is why I feel that it is important to bring technology for the umpires themselves to use so replay reviews and "Robo Umps" aren't necessary to begin with, and we can have humans still in the job that are as accurate as possible.

SWOT Analysis:

- **Strengths:** Growing fan demand for accuracy in umpire calls, keeps humans as the umpires (no Robo Umps), can be integrated with media broadcasts to make for more engaging and transparent games, and data-driven insights for players and coaches can be more accessible with this technology.
- **Weaknesses:** High implementation costs, resistance from traditionalists in baseball who dislike technological interference, dependence on strong internet and hardware infrastructure, can still be inaccurate (will the strike zone box adjust with players of different sizes and dimensions? Will framing the pitch from catchers become obsolete? Will the way you stand/crouch adjust the way you see the box with glasses?)
- **Opportunities:** Expansion of officiating technology into multiple sports (other leagues can follow suit, which will lead to more profits), partnerships with sports betting and streaming platforms, and the ability to integrate officiating data into fan engagement.

- **Threats:** Competition from rival tech companies (TrackMan, Rapsodo), potential MLB rule changes (Robo Umps get introduced?), and possible fan or umpire backlash against over-reliance on automation (will umpires be required to wear this technology? Will fans be even more upset? Will players be upset?)

Key Financial Metrics:

- The sports technology industry is valued at approximately \$29 billion as of 2022, with strong growth forecasted at a CAGR of 13–15%. There is a lot of opportunity, and the market is only growing as years go on.
- MLB alone generated over \$11 billion in annual revenue in 2023, demonstrating the league's financial capacity to invest in new technologies that improve efficiency and game management. The game continues to grow internationally with rising global stars like Shohei Ohtani.

2. Name of the Company Represented: Sony (Hawk-Eye Division)

Sony is one of the biggest global technology leaders with annual revenues exceeding \$80 billion. In 2011, Sony acquired Hawk-Eye Innovations, a pioneer in sports officiating technology. Hawk-Eye has become the gold standard in leagues worldwide, powering VAR in soccer, line-calling in tennis, decision review systems in cricket, and most recently, the Automated Ball-Strike (ABS) system in MLB, which will be fully implemented starting in the 2026 season.

SWOT Analysis (Sony/Hawk-Eye):

- **Strengths:** Trusted by top sports leagues, proven AI-based vision systems, existing MLB partnership along with other major sports leagues.
- **Weaknesses:** High R&D costs, dependence on league adoption by players and umpires.
- **Opportunities:** Broader U.S. market penetration, wearable tech innovations, expansion into new sports applications and other types of technology in the sport.
- **Threats:** Rival firms such as TrackMan or Rapsodo, reliance on league contracts, and potential fan/player/umpire resistance to the officiating technology.

Key Financial Metrics:

- Sony Group's annual revenue exceeds \$80 billion (2024).
- Hawk-Eye's revenues are estimated at \$40 million+ annually, with steady growth tied to league contracts and global sports adoption.

3. The Product Being Sold: Wearable Umpire Technology

Product Overview and Description:

The proposed product is a **Wearable Umpire Technology system** designed to enhance officiating accuracy without fully automating or replacing umpires. This product will primarily include smart glasses (could be a smart face mask instead) that will project a strike zone box in real time so that the umpires can be as accurate as possible when the pitch is thrown. On TV broadcasts, most broadcasts have the box on the screen for the viewers, but the umpires don't. Additionally, with pitches being thrown at all-time high speeds and angle changes, this can help the umpires be more accurate with their calls. Additionally, the umpire's chest protector would be outfitted with sensors to track pitches for speed, spin, and trajectory to increase analytics for both the teams and viewers in real time. Together, these devices will give the umpires immediate assistance while still preserving their role in the game, minimizing the number of challenges by players, and keeping human umpires in the game.

Value Proposition:

This product has immense value as it balances the desire for technological accuracy with keeping a human touch to officiating. Fully implementing "Robo Umps" may increase accuracy even more, but it will lead to other issues that a human can solve. Additionally, Umpires love their jobs and don't want to be pushed out of the game.

Price and Profitability:

This product would be sold directly to MLB (after I can make a deal with Sony to take on my tech). We would sell this through a league-wide contract partnership priced between \$50,000-\$100,000 per unit, with bundled service contracts and software subscriptions. Additionally, we would also want to implement this technology through Minor League Baseball as well (which the MLB oversees). This model ensures recurring revenue and high margins, given the low incremental costs of analytics software once hardware is deployed.

Product Comparison Matrix:

| Vendor / System | Tech & Hardware | Primary Use Cases | ABS / Officiating Readiness | Adoption / Installs (verifiable) | Notable Stats |
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| Sony Hawk-Eye (baseline for your Wearable Umpire Tech) | Optical, ~12 high-speed cameras per park at ~100 fps (Statcast "Gen-2"). | Statcast ball & player tracking, pose tracking; ABS challenge visuals. | Yes. MLB's ABS challenge uses Hawk-Eye pitch tracking, deployed across spring venues and MiLB pilots. | Installed across all MLB ballparks as the Statcast tracking platform since 2020; ABS installed in 13 spring parks (2025). | 12-camera array + pose tracking (18 skeletal points); "more complete coverage" vs. prior radar system. |

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| TrackMan V3 (stadium radar) | 3D Doppler radar (in-game & practice configurations). | Player development, in-game tracking, and scouting; previously used for Statcast ball tracking (2015–2019). | Prototype/legacy ABS: Used in early “robot-ump” trials (Atlantic League). Not MLB’s current ABS engine. | Former Statcast radar vendor; used in Atlantic League ABS trials (2019). | Radar measures pitch flight and release metrics; Atlantic League test connected plate umps to TrackMan via earpiece. |
| YakkerTech (stadium optical) | 4-camera optical system (seam-based vision). | College & pro orgs: pitch/ball flight tracking, player development. | No native ABS; officiating use would require league integration. | 120+ collegiate stadiums, 30 pro orgs report using it. | Optical approach computes movement/spin from actual ball flight (vendor claim). |
| Rapsodo Stadium (in-game optical) | Two dual-stereo camera units (fully optical) to track 100% of ball flight. | In-game analytics for leagues below MLB; player development; broadcast enhancements. | No native ABS; could feed a zone overlay but not an officiating system today. | American Association and Prospect League announced league-wide installs. | Stadium system mirrors “MLB-style” optical tracking for accessible levels. |
| SMT K-Zone (broadcast graphic) | Broadcast visualization using pitch-tracking feeds. | TV strike-zone overlays (ESPN K-Zone Live, 3D replays). | Display only (not an officiating engine). | ESPN committed to K-Zone Live on every pitch (2015). | 3D K-Zone replay/overlay for viewers. |

- **Hawk-Eye is already the MLB “source of truth.”** Statcast’s Gen-2 rollout replaced radar with a **12-camera** optical array and added **pose tracking**—that’s the backbone your **wearable umpire** concept plugs into. It lets you promise *sub-second* challenge visuals the league already trusts.
- **TrackMan is elite for development, not current officiating.** It powered early ABS trials (Atlantic League) via radar + earpiece, but MLB’s live ABS challenge now runs on Hawk-Eye. Position TrackMan as a **data rival**, not the on-field officiating stack.
 - o **Edge:** Current MLB ABS runs on Hawk-Eye; optical excels on pop-ups/throws where radar struggled. Wearables add a real-time **on-ump HUD** to turn ABS data into *actionable* call support. [Built In](#)
 - o **Risk to address:** Don’t overclaim accuracy numbers—focus on MLB adoption and challenge-system workflow already in place. [ESPN.com](#)
- **YakkerTech & Rapsodo Stadium are fast-growing below MLB.** They show demand for **lower-footprint optical installs** (4 cameras; dual-stereo units) and broad adoption outside MLB. Leverage this to argue your **wearables can scale to MiLB**, winter ball, College World Series, etc., while keeping MLB on the flagship Hawk-Eye stack.
 - o **Edge:** MLB-proven Hawk-Eye network vs. college-dominant YakkerTech (120+ venues). Your wearable layer differentiates as **officiating-first** rather than training-first.

- o Rapsodo is scaling in independent leagues (AA, Prospect League), not MLB officiating. Your pitch is **league-wide ABS integration** + HUD—closing the loop from **tracking** → **decision**.
- **Broadcast tie-ins are real.** SMT's K-Zone proves every-pitch visualizations are table stakes for fan trust. Your pitch: *merge* Hawk-Eye ABS + **on-ump wearable HUD** for clean, shareable visuals **and** better call-consistency.
 - o **Edge:** K-Zone is visualization only. Your product **drives decisions on the field** and can still output clean broadcast overlays via Hawk-Eye feeds

4. The Prospect: Major League Baseball (MLB)

Overview:

MLB is one of the world's premier sports leagues and the biggest baseball league in the world. They generate approximately \$11 billion annually. They have a global audience, a long history of embracing new technologies for broadcasting and analytics, and a growing interest in officiating enhancements. MLB has already tested ABS systems in minor leagues and is fully implementing them in its league starting next year, signaling openness to new officiating solutions.

SWOT Analysis:

- **Strengths:** Global brand recognition, financial ability to invest in tech, openness to pilot programs, and efficiency in officiating.
- **Weaknesses:** Tradition-heavy culture, potential union conflicts with umpires and players. Potential fan backlash can prevent MLB from making a pivot.
- **Opportunities:** Improve game flow, reduce controversy, enhance fan trust in outcomes, and keep humans in the umpire role.
- **Threats:** Backlash from fans or players resistant to tech, risk of alienating umpires if tech is perceived as a replacement, and software malfunctions can discourage MLB from pivoting.

Top 2 Competitors for MLB in the Entertainment Market:

If the MLB officiating is not up to par, fans can pivot to other top US sports leagues or potentially the next biggest baseball league

- **NFL:** Competes for U.S. sports viewership and revenue.
- **NBA:** Highly innovative league in terms of fan engagement and technology, pushing MLB to modernize.
- **Nippon Professional Baseball (NPB)** — Japan. Revenue is smaller than MLB but still significant. Known for high levels of play and top players have been in the league such as Shohei Ohtani before he came to the MLB.

5. The Competitor: TrackMan

TrackMan, the main competitor and is a leading company in sports tracking systems, offering real-time pitch data such as speed, spin rate, and trajectory. While it is widely trusted by MLB teams for player development, it has less integration into on-field officiating. However, the market and path for officiating technology is wide open right now, which makes them a threat to us.

SWOT Analysis (TrackMan):

- **Strengths:** Accurate pitch tracking, widely used by MLB organizations, and strong brand recognition.
- **Weaknesses:** Focused more on analytics than officiating, expensive hardware requirements.
- **Opportunities:** Could expand into umpire support if adapted. There is a wide-open market for umpire technology right now so they can easily adapt into it if they want to.
- **Threats:** Sony's Hawk-Eye has made an impact with the ABS replay system, which tracks balls and strikes; it is a league preference for existing partners.

Key Financial Metrics:

TrackMan is privately held but is estimated to have over \$150 million in revenue, with most MLB teams already subscribing to its services. Analytics have been huge in baseball with many teams investing millions of dollars into it. That will make the analytics side of the umpire technology harder to get into for Hawk-Eye.

Competitive Matrix:

| Feature / Metric | Sony Wearable Umpire Tech (on Hawk-Eye) | TrackMan Radar System |
|-------------------------|--|--|
| Technology | 12-camera Hawk-Eye optical array + umpire wearables (HUD glasses + chest protector sensors). | 3D Doppler radar tracking of pitches and batted balls. |
| Accuracy | ±2.6 mm accuracy (Hawk-Eye); optical tracks entire ball flight & fielder movements. | High accuracy on velocity/spin, but radar struggles on pop-ups, throws, and edge tracking. |
| Adoption in MLB | Hawk-Eye is MLB's official Statcast provider (since 2020). ABS challenge system already | Former Statcast provider (2015–2019). Still used in all 30 MLB organizations for player |

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| | tested in 13 spring ballparks (2025) . | development, but not for officiating. |
| Primary Use Case | Officiating support (ABS challenge + wearable HUD for umpires). | Player development, scouting, analytics. Limited officiating application. |
| Revenue Model | Hardware sale + recurring software/service contracts; scalable to MiLB/college. | Hardware + license fees; widely adopted in player development but not tied to officiating contracts. |
| Differentiation | <i>Umpire-first</i> technology: enhances human accuracy, preserves tradition, supports officiating + broadcast visuals. | <i>Data-first</i> technology: provides training and scouting insights but does not solve in-game officiating needs. |
| Competitive Weakness | Higher initial costs, reliance on MLB adoption. | No ABS-ready officiating system; lost Statcast exclusivity to Hawk-Eye. |

Why MLB Should Choose Sony:

Sony overall offers a solution that improves officiating accuracy while keeping umpires relevant. This strikes a balance between modernization and tradition, which is critical to MLB's brand. TrackMan, while excellent for analytics, does not provide a practical officiating-first solution. Although they can pivot to make their own version of this technology, Sony has a reputation in this field with the ABS system. This proven track record should give Sony/Hawk-Eye the edge in the eyes of the MLB.

6. Sales Hypothesis and Value Proposition

MLB is at a crossroads: it wants to modernize and improve accuracy, but it also recognizes the tradition and human element of the game that can cause backlash from fans/players/umpires/baseball purists. Sony's **Wearable Umpire Technology** provides the ideal compromise, ensuring that calls are as fair, accurate, and transparent as possible, reducing human error, while keeping umpires as a central part of the game.

The sales hypothesis is that MLB will adopt this system because it:

1. **Enhances accuracy** and reduces controversy/human error.
2. **Protects the role of umpires**, easing resistance from unions and fans.
3. **Aligns with MLB's goals** of balancing tradition with innovation.

The value proposition is simple: Sony's solution ensures **better officiating without replacing umpires**, providing benefits to the league, the umpires, and the fans simultaneously.

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