



Proving Feasibility: Iterative Excellence in Advancing R&D

SUMMARY

Demonstrate the application of new technology, Augmented Reality (AR) to create a 3D scene illustrating agricultural sprayer usage, leveraging weed detection data. The challenge was to prove the concept's feasibility while addressing the inherent inaccuracy of mobile devices in remote rural settings.

CHALLENGE

- Accelerate the understanding of AR's value and potential business cases.
- Achieve quick wins to enable frequent stakeholder demos to gain internal excitement.
- Evaluate and select an AR toolkit/SDK for the project.
- Mitigate location accuracy issues and limitations.
- Prove the connection to real data sources.
- Maintain a "fail fast" mindset.
- Collaborate and share findings with teams internationally..
- Define and deliver iteratively with checkpoints.

OUR R&D APPROACH

R&D demands a broader perspective than just MVP features. It's about exploring, failing fast, and zeroing in on viability. In this project, our success hinged on:

- Parallel MVP Exploration: Exploring various features simultaneously to discover opportunities.
- Tight Feedback Loop: Collaborating closely with SMEs and stakeholders for rapid course adjustments based on emerging insights.
- Flexibility: Embracing a 'fail fast' mindset to pivot and innovate effectively.

RESULTS

- Developed a prototype of an AR app on Android and iOS devices that integrated via a Raspberry Pi to test accuracy and features.
- Resolved accuracy in GPS and image tracking for real-world to virtual location mapping.
- Identified other potential use cases for AR in the client's technology space.
- Accumulated over 3 GB of video evidence demonstrating the feasibility of the project.

Embracing agility and iteration, we integrated augmented reality into the project. Our team's adaptability and stakeholder collaboration led to solutions that surpassed expectations.