

Lightning Presentation 3

Technical Challenges

Group sdmay20-53
Smart Backpack Sprayer



Technical Challenge: Integration

- One of the biggest challenges of the whole project
- Vital to the project
- On going process
 - Working to combine and communicate between pieces



Hardware Integration

- Data Gathering
- Data Aggregation
- Bluetooth Module
 - Actual Communication Component of Backpack Hardware



API Integration

- Understanding the different functions of Mapbox API.
 - Mapping different Data Points.
 - Updating the map on the iOS Device.
- Understanding Firebase and the different functions it provides.
 - Basic authentication with the iOS Device.
 - Storing Location Data for future use.
 - Allowing for offline mode.



iOS Integration

- Understanding the I/O of the iOS
 - Using core data to set up the local database of the datas.
 - Transmitting the data between the hardware device and cloud storage.
 - Data caching.
- Layout of the content
 - Displaying the data in a propel formate which lets user have a easy access.
 - Using auto layout to properly arrange rich content for all models of iOS devices.
- Life cycle of each view controllers/views
 - The order each system calls been placed and view been rendered.



Other Technical Challenges

- Hardware Team
 - Accuracy of Sensors/Hardware

- API Team
 - Correct datasets for API usage.
 - Correct understanding of each part connecting.

