EE/CprE/SE/CybE 491 Period Report
9/21/2019 - 10/04/2019

Group number: sdmay20-53
Project title: Smart Backpack Sprayer for Small-Scale Agriculture Applications
Client &/Advisor: Tim Andersen, Taylor Greiner, and Daji Qiao
Team Members/Role: Madison Kriege, Sean Doran, Kevin Davis, David Hayes, Shuangquan Li, Donald Laracuente

Period Summary

Over the past two weeks, our team has had two meetings, one with our client and one with our advisor. Our meeting with our clients, we discussed specifics on the hardware along with further verifying requirements and ordered hardware. During our advisor meeting, we updated him on our client meetings, along with running through different ideas on how to structure parts of our project. Since then, we have received the hardware along with verifying that we have the skills to assemble it. Besides the meetings, we have also completed a first draft of the Design Document for the project and uploaded it to our team's website.

Past Period Accomplishments

Over the last three weeks, we have gathered the hardware needed for the project, created the first draft of our design document, and continued to meet with our clients and advisor. The Arduino and sensors we plan to use have been ordered and delivered; additionally, we have narrowed down the software platforms we would like to use moving forward. The Individual Contributions section of the report lays out who contributed to each accomplishment. Additionally, all team members have participated in course assignments, creating the design document, and attending meetings with clients.

Pending Issues

After collecting the hardware, it has come to our attention that we are missing some of the cables required to begin setting stuff up. Additionally, before testing and setting up the sensors, we need to find the datasheets that correlate with them. The first search for these has proven more difficult than initially planned.

Individual Contributions

Name	Individual Contributions	Hours this period	Hours cumulative
Madison Kriege	Design Document courses section, put together weekly report	16	31
Sean Doran	Started looking into SDK for Mapbox and Firebase	16	31
David Hayes	Worked more on setting what hardware we wanted, Started looking into the data sheets, Made primary conceptual diagram, Made first system diagram	16.5	31.5
Kevin Davis	Design Document sections for Operational Environment, intended users/uses, expected end product/deliverables, general formatting layout of document. Requirements Document (hardware, software, nonfunctional)	15	31
Shuangquan Li	Researched about Amazon Web Service App Sync service, Look into the Firebase and wrote a Firebase demo app, Researched about LeanCloud and wrote a demo app	15	31
Donald Laracuente	Completed Design document Sections Requirements, Acknowledgements, Assumptions and Limitations and Project Timeline	16	31

Plans for Upcoming Period

As we move into the next period, our goal is to break into three sub-teams in order to begin development. These teams will center around the iOS application, cloud integration, and hardware. Moreover, our team aims to begin the project setup and start testing out the sensor capabilities.