

EE/CprE/SE/CybE 491 Period Report

09/02/2019 - 09/20/2019

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 Laracuenta

Period Summary

Over the past few weeks, our team has had two meetings with our clients and two advisor meetings to help gather the requirements for the project and gain a better understanding of what we will be building. We have begun researching different sensors that we can utilize throughout this project as well as various libraries that can be used to help with the mapping aspect of the application. The objective of this first period was to get to know our contacts and understand the situation they are coming from to build a product to solve their current problem.

Past Period Accomplishments

Throughout this past period, our team put together a list of functional and non-functional requirements for the project, met with clients to determine the specs needed, and began researching the hardware to be ordered by the clients. The Individual Contributions section of the report lays out who contributed to which accomplishment. Additionally, all team members have helped put together the requirements documentation and have participated in client/advisor meetings.

Pending Issues

We do not currently have any pending issues.

Individual Contributions

Name	Individual Contributions	Hours this report	Hours cumulative
Madison Kriege	Contributed on project requirement gathering and took notes at meetings. Put together period report for beginning of semester.	15	15
Sean Doran	Worked on researching Mapping APIs and different mobile technologies. In addition, looked into what types of sensors and microcontrollers we could use to connect sensors to.	15	15
David Hayes	Worked on finding hardware to be used for the project. Also worked on making the requirements.	15	15
Kevin Davis	Researched sensors/hw for project. Contributed on general requirement work too.	16	16
Shuangquan Li	Worked on software technical requirements, and researching the tech stack between iOS and Android.	16	16
Donald Laracuate	Researched some different types of sensors along with bluetooth vs Wifi for data transferring	15	15

Plans for Upcoming Period

Throughout the next period, we hope to complete the research portion and determine the exact hardware and sensors that we will be using moving forward. Additionally, in this next period, we would like to meet with our advisor to confirm we have the needed client information to be successful. We will also be working to become more familiar with Swift and

the iOS development platform so that we are comfortable with it before starting the Intelli-sprayer.

Summary of Advisor Meeting

During our advisor meeting, we went over the current project scope and requirements we had defined with our clients. From there, we decided that we needed more information from the clients about the exact specs they are looking for to start researching sensor information.