

Group number: 19

Project title: Portable Nutrient Data Collection System - Phase II

Client &/Advisor: Dr. Qiao & Dr. Qeu

Team Members/Role:

Ben Theisen - Group Leader

Michael Rupert - Webmaster

Zakk Belloma - Key Concept Holder

Ben Engebrecht - Communication Leader

Logan Boas

Ryan Young

o Weekly Summary (Short summary about what you did this week)

- We meet with our advisors and discussed how the testing system functions and what is needed to complete the project. Started to find options for components of the system, and started discussing data transmission methods.

o Past week accomplishments (please describe as what was done, by whom, when)

- We sat down as a group and read through all of the existing documentation, including the previous students' work.

o Pending issues (if applicable)

- Finalizing requirements
- Starting to decide on components of the system
- Determining which method of communication to go from the spectrometer to the app.
- Working with the spectrometer, figuring out the data flow output of the device.

o Individual contributions

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Michael Rupert	Researched microcontrollers, read data sheet for spectrometer.	3	6
Ben Theisen	Reviewed Literature, Communicated with advisor.	4	7

Zakk Belloma	Reviewed spectrometer spec sheet. And looked at source code of app that is in github	3	6
Ben Engebrecht	Reviewed Datasheet, looked at Android source in GitHub	3	6
Logan Boas	Researched and Compared Bluetooth devices	4	7
Ryan Young	Reviewed Datasheet for Spectrometer.	5	8

o Comments and extended discussion

Took into consideration, shipping for potential components, lead time and cost.

o Plan for coming week (please describe as what, who, when)

- Meet with advisor on Thursday -All
- Discuss next step in the project -All
- Start work on designing system -All
- Figure out good splits in the group to form small sub teams to tackle issues -All

o Summary of weekly advisor meeting (if applicable/optional)

Discussed the project with the advisors. Met with grad students who are also working with this project. Viewed the current system that is being used in Dr. Long's lab. Went through each component of the system that will influence our project. Decided to find several options for the components of the system to best decide how the system will be put together. Discussed the main part of the project, getting data from a spectrometer to a smartphone app. Browsed the data sheet for the spectrometer to get a preliminary idea of how to solve this issue.