EE 492 Biweekly Report 4

Timeframe: 2/29/18 – 3/9/18

Group: 38

Project: Sensors for Measuring Chemical Content in Soil

Client and Advisor: Dr. Liang Dong

Team Members – Broken down into 3 group roles (Control Box, Sensor, and Software).

Colin Cox – Software

Jarrod Droll – Sensor

Rachel Hoke – Sensor

Wage Miller – Control Box

Scott Rowekamp - Software

Tyler Thumma – Control Box

Summary:

Control Box – Measured dimensions of the physical box that was selected and created a CAD file in order to identify where the holes need to be cut for the switch, power supply, and sensors.

Software – Crated a map view that shows a weighted heatmap of sensor readings. Improved app user flow. Scott has started developing the server software. It currently supports generating new users, signing in, and simple data uploading. In the next reporting phase Scott will continue developing the sever. We have heard back from ETG and our server is ready. Scott will begin configuration next week.

Sensor – Finished laser cutter training and began printing and placing shadow masks on the 15 sensor boards.

Accomplishments:

Control Box – Created a CAD file so that laser cutting can be done efficiently and repeatedly for any amount of control boxes.

Software – Implemented a weighted heat map using google maps to display sensor reading overlayered with a soil map. We got our virtual server. The sever software currently supports the core features.

Sensors – Printed the first layer of shadow masks for the sensor boards, send boards out for gold deposition.

Pending Issues:

Software – No pending issues

Sensors – No pending Issues.

Control box – No pending issues

Individual Contributions:

Name	Contribution	Hours	Cumulative Hours
Colin Cox	Implemented heatmap and improved app flow	9	23
Jarrod Droll	Printed first layer of shadow masks and sent boards out for deposition	5	21
Rachel Hoke	Printed first layer of shadow masks and sent boards out for deposition	5	21
Wage Miller	Measured physical dimensions of box and created CAD file.	5	20
Scott Rowekamp	Worked on core server functionality. Worked with ETG	10	25

	to get the virtual server created.		
Tyler Thumma	Measured physical dimensions of box and created CAD file.	5	20