

EE/CprE/SE 492 WEEKLY REPORT 3

Feb 20th 2019 - Mar 3rd 2019

Group number: 45

Project title: IoT environmental monitor

Client &/Advisor: Dr. Geiger

Team Members/Role:

**Tyler Fritz – Software Developer,
Dong Xing – Hardware developer,
Ahmed Abuhjar – Hardware Developer,
Haoyue Ma – Hardware developer,
Yuanzhe Wang – Hardware Developer**

o **Weekly Summary**

This week, we did some specific soil moisture tests by using samples according to our advisors suggestions. We also ordered some new tools which have better performances compare with the ones we used before. We built the connection between the homenode and the testing web server successfully.

o **Past week accomplishments**

Tyler Fritz: Successfully connected our MKR GSM 1400 to the cellular network using the new sim card and provider. Then started setting up our webserver. I got the application running, I just need to get the database running and configured now.

Ahmed Abuhjar: Calibrate the sensors to characterize the soil moisture level with the corresponding resistance of the gypsum used in the sensor

Dong Xing: Reorganized and rechecked some parts of tools in order to select some better performance resources.

Haoyue Ma: Worked with Tyler to build the connection between the homenode and the testing web server successfully. We also started work on our webserver.

Yuanzhe Wang: Worked on the moisture sensors. Made soil sample and did the tests.

o **Pending issues**

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o **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Tyler Fritz	Successfully connected our MKR GSM 1400 to the cellular network using the new sim card and provider. Then started setting up our webserver on our vm. I got the application running, I just need to get the database running and configured now.	4	10.5
Ahmed Abuhjar	Calibration experiments for the soil moisture sensor.	4	10
Haoyue Ma	Built the connection the between the homenode and the testing web server successfully. Started work on our web server.	3	10
Dong Xing	Keep working on some new resources check and order work. Reorganized some parts of size and type of tool performances.	4	10
Yuanzhe Wang	Made the soil sample to extreme dry, 20% moisture and 40% moisture and measure the voltages crossed the sensors.	7	12

o **Plans for the upcoming week** *(Please describe duties for the upcoming week for each member. What is(are) the task(s)?, Who will contribute to it? Be as concise as possible.)*

- **Tyler Fritz:** Get the web server running and do a complete integration test.
- **Ahmed Abuhjar:** Continue doing the testing and making PCB layout
- **Haoyue Ma:** Coninue work on our webserver with Tyler. Try to send data to our webserver if possible.
- **Dong Xing:** Ordered some new parts of tool and checked their performances according to online resources and descriptions.
- **Yuanzhe:** Made more samples from 10% to 40% moisture then test them.

o **Summary of weekly advisor meeting**