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**

Last week, we have met with the advisor and discussed further the project status and what we are going to do during the next week. We have listed the parts needed for our project for them to be ordered. We have starting on soldering the new substrates we made before for more humidity sensors. Next week, we will add the gypsum layer to finish the sensors and make them ready for testing experiment.

o **Past week accomplishments**

Tyler Fritz: Worked with Hayue to get the home node's internet connection working. We fixed quite a few issues such as the sim card not being provisioned and errors in our sample code, but do not yet have the connection working.

Ahmed Abuhjar: Soldering substrates and connecting them with resistors to make the circuit needed for the sensors to operate as required.

Dong Xing: Figuring out some necessary parts to order by recalculating the values of each part.

Haoyue Ma: active the SIM card and work on the connection issue between the homenode and the web server.

Yuanzhe Wang: looked for gypsum we need in every supermarket in Ames. Finally, I found a kind of gypsum in a garden store. We will check does it work for us, otherwise we will order what we need online.

o **Pending issues**
● Still missing some parts ordered, and we're still waiting for them to be delivered. These parts include the ones to make new leaf node PCBs.
● Still some connection issues between homenode and web server need to solve.

o **Individual contributions**

NAME	Individual Contributions	Hours this week	HOURS cumulative
Tyler Fritz	Worked on getting the home node connected to the cellular network. I see no reason why it is not currently working, so hopefully, that means we're close.	3.5	6.5
Ahmed Abuhjar	Soldered substrates for new sensors. Identified the type of soil we need to use for testing the soil moisture sensors.	3	6
Haoyue Ma	Active the sim card and work on the connection issues between the homenode and web server.	4	7
Dong Xing	Recalculating the values of each parts(resistors, inductors,etc.) and ordering them.	3	6
Yuanzhe Wang	Drived to many places to look for gypsum.	3	5

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 home node connected to the internet, and test comminations between leaf nodes using 1km range radios.
- **Ahmed Abuhjar:** Will add the gypsum layer to the substrates and start the testing procedure.
- **Haoyue Ma:** Solve the connection issues between homenode and web server, and help Tyler test communications between leaf nodes.
- **Dong Xing:** Order some necessary parts for radio from calculations in order to get longer range than the last group's work.
- **Yuanzhe:** Get the gypsum done and ready to do the tests.

o **Summary of weekly advisor meeting**

Last week, we have met with the advisor and discussed further the project status and what we are going to do during the next week. We have discussed the soil types that could be used for testing.