

## **EE/CprE/SE 491 WEEKLY REPORT 3**

**9/18/2018 – 9/29/2018**

**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**

- **Weekly Summary**

The overall objective of this week was spending a few hours getting basic programs to run on the transceiver by connecting with the arduino. We've had two meetings focused on technical progress and worked on the project plan. This week everyone in this team contributed pretty much and had pretty sufficient communications with each other.
  
- **Past week accomplishments**
  - Tyler Fritz
    - Successfully compiled programs to both the leaf and home nodes.
    - Soldered new leaf node together and added radio to it.
    - Got web server front end running. Just need to connect it with DB now.
  - Ahmed Abuhjar
    - Assisted team in setting the web server for the project. Got familiar with Wia Dashboard that we could use as our temporary web server until we fully develop our own.
    - Assisted team in putting together another leaf node to get it ready to run the program for testing. We soldered components including the radio transmitter into the motherboard.
  - Dong Xing
    - Keeping working with teammates to program and run the circuit and transceiver and the fixing some errors.
    - Working on the project plan writing and organizing, always communicating with each other about the descriptions.

- Haoyue Ma
  - Watching videos about how to connect and use NRF24L01 on YouTube to be familiar with NRF24L01.
  - Started familiarizing with the arduino and NRF24L01 setup.
  - Programming codes which used for transferring and receiving data.
- Yuanzhe Wang
  - Worked on the project plan.
  - Assisted team to program the home node and leaf node.
  - Learned how the NRF24L01 connect to the leaf node.

○ **Pending issues**

- Since this week we are working on the project plan version one for most of the time, we just made some disagreements and misunderstandings by communications or some other things. But we finally figured out some ways to work better, especially for some grammar mistakes, we just help each other to check and fix someone else's work since it is much easier for people to find errors from the others.

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○ **Individual contributions**

<b><u>NAME</u></b>	<b><u>Individual Contributions</u></b>	<b><u>Hours this week</u></b>	<b><u>HOURS cumulative</u></b>
Tyler Fritz	Successfully compiled programs to both the leaf and home nodes. Soldered new leaf node together and added radio to it. Got web server front end running. Just need to connect it with DB now.	9	18
Ahmed Abuhjar	4	4	12
Haoyue Ma	Write Project plan, Programming code, Searching information about NRF24L01, Dr. Geiger's presentation	6	14
Dong Xing	Programming the transceiver code and working on the project plan by communicating with group members and writing down the ideas.	6	8

Yuanzhe Wang	Checked the connected errors. Ordered needed stuff from ETG office.	6	14
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- **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.)*

- We will start testing the leafnode code and keep debugging the home-node for the next week if everything is delivered and prepared well.

Contributors: everyone in this team.

- Start testing collecting and transferring data
  - Contributors: Haoyue, Dong ,Ahmed

**note: it's currently difficult to divide up tasks because we are blocked by the home node and leaf nodes not being set up. We are all working to remove this blockade.**

- **Summary of weekly advisor meeting**

- We learned more about the goal of the project and cleared up a good deal of confusion across the group. We will start working on the leafnode and trying to testing it as soon as possible once we get everything material we need.