

**Group number: Dec1317**

**Project title: IoT Monitor**

**Client &/Advisor: Geiger**

**Team Members &/Role:**

**Ian Harris: Team Leader**

**Tim Lindquist: Key Idea**

**Gregory Steenhagen: Webmaster**

**Steven Warren: Communication**

### **o Weekly Summary**

Met with group discussed group tasks. Clarified direction of project. Went to see what the 3D printer situation was in Elings. Ordered parts -Atmegas and radios for the the project.

### **o Past week accomplishments**

- **Ian Harris:** Met with Prof. Geiger, learned details about what is expected from the web-app. Discussed how to relay data between home node and our web-app. Set up a Trello board to track issues for our project
- **Gregory Steenhagen:** Researched Spring Boot, and how to create services with it. Looked into best method to get a server up to send test data to.
- **Khoi Cao:** Collaborated with Terver: Decided on 3G module, microcontroller to use. Sent the purchase order request to Geiger. Synced up with Ian to determine the communication protocol (Home -- Web base) and the data layout.
- **Terver Ubwa:** Decided on the microcontroller to use. Decided on the 3G module and then looked up the data sheet. Decided on the prototype setup for transmitting to the server(collaborated with Khoi).
- **Tim Lindquist:** Finished the ATMega328 programmer with steve. Figured out parts list with steve. Explored 3D printing options in sukup.
- **Steven Warren:** Got a ATMega328P programmer soldered down w/ Tim. Sent in parts to Geiger to be ordered.

### **Pending issues**

- **Ian Harris:** Contact Prof. Kaleita-Forbes for details about how to display the data

from our nodes

- **Gregory Steenhagen:** Get a REST endpoint up to send information to.
- **Khoi Cao:** Build a parent (Home) prototype.
- **Terver Ubwa:** Getting the 3G module.
- **Tim Lindquist:** 3D printing material and get testing started. Conductive material fee.
- **Steven Warren:** Making sure our parts come in for the group so we can begin testing and building.

**o 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>
Ian Harris	2	2	6
Gregory Steenhagen	1.5	1.5	3.5
Khoi Cao	3	3	5
Terver Ubwa	2.5	2.5	4.5
Tim Lindquist	3	3	7
Steven Warren	3	3	8

**o Comments and extended discussion**

begin working to figure out problems we will run into. We will not have an advisor meeting this upcoming week.

**o Plan for coming week**

- **Ian Harris:** Collaborate with Charlie (Gregory), talk about spring-boot, set up an end-point that simply echos the data sent to it for testing.
- **Gregory Steenhagen:** Begin setting up a REST end point to hit with test data, and get it live so we can begin testing.
- **Khoi Cao:** Begin programming arduino to output the desired bit strings and data layout. Learn how to use the AT command to transmit data over SIM module.
- **Terver Ubwa:** programming arduino to to work with the 3G module. Transmitting a desired number of bits to the server.
- **Tim Lindquist:** get printing situation figured out and make a 3d model of a sensor to print. if parts come in explore how they work.

- **Steven Warren:** Begin building our first ATmega328. Begin programming with the wireless radios.

**o Summary of weekly advisor meeting**

Discussed goals for the group with Geiger. Decided to talk to ABE department for the hydroscopic moisture reading device. We will not be meeting next week due to Geiger traveling to San Francisco. Some of the group got more clarification as to what the plan is for the webpage and their individual portions of the project.