EE491 Weekly Report 5

Date: 10/4/16-10/10/16

Group number: May 1717

Project title: 19 - Wireless Solar Temperature/Humidity Sensor

Client: Dan Stieler

Team Members/Role:

Yi Qiu - General Member

Xiang Li - Webmaster

Kebei Wang - Team Leader

Trevor Brown - Key Concept Holder

Kukjin Chung - Communication Leader

Weekly Summary

_____In this week, we had the first meeting with our advisor. The client also participated in this meeting. We discussed how to begin the project. The client, Dan, wants some data about different transmissions such as wifi and bluetooth. We also talked about several battery types to use for this project. We start trying to build our system.

Past week accomplishments (please describe as what was done, by whom, when)

- Kebei Wang - meet with our advisor and client last week.

- Trevor Brown - Made a block diagram of the hardware, ordered samples from TI of the power management IC

- Yi Qiu -Participate the meeting with professor Tuttle and Dan. Meet with group and research on bluetooth develop board and sensor.

- KukJin Chung - researched on circuit board and transmission based on arduino model.

- Xiang Li －did some research and think about how to build the system initially, and participated the meeting with Dan, and Professor Tuttle. Did summarize for the meeting for everyone. Attended group meeting.

Pending Issues

- Project plan

- Build the system

Individual contributions

NAME	Individual Contributions	Hours this week	HOURS cumulative
Yi Qiu	Attend meetings with advisor and group members. Did some research on temperature sensor	3	6.5
Xiang Li	did some research and think about how to build the system initially, and participated the	3	8.5

	meeting with Dan, and Professor Tuttle. Did summarize for the meeting for everyone. Attended the group meeting.		
Kebei Wang	Attend the meeting with advisor with client, do research and figure out the battery part.	3	7.5
Trevor Brown	Created a block diagram of the hardware, ordered samples from TI of the power management IC	2	5
Kukjin Chung	Participated in the advisor meeting and researched on arduino bluetooth transmission and MIT app inventor	2	6.5

Comments and extended discussion

For this meeting, there are couple things that we discussed:

Purpose:

1. How low power we can used to wire sensor system.

2. Determine the low power system.

3. How often the transmission take place.

Some Technology that we may can use:

1. Wifi and Bluetooth for transmission.

2. Arduino and Raspberry Pi for the board.

Focus First:

1. Get sensors.

2. Think about How big the board.

3. Possible Wifi or Bluetooth.

4. Set up first.

Battery is crucial, and its size is very important for low power. let battery run without solar pan, and find the consumption. Then, run it with solar pan, and find the difference.

Recommendation for battery:

1. high capacitance.

2. low self-discharge.

3.Li ion, Li poly, nimh,   Alkaline Battery.

Plan for coming week (please describe as what, who, when)

- Kebei W. Try to find the battery work for us.

- Yi Q. try to build and test a basic temperature sensor system's power consuming with group members.

- Kukjin C. prepare project plan, and get ready to build the circuit.

- Trevor B. Continue research on TI chips and compare power consumption.

- Xiang L. build the system with group member firstly, and do some test of the system.