

Senior Design 492 Weekly Report 16

Week 16 (1/19/16 – 1/23/16)

May1624 -- Programmable Wireless Sensor Package for CprE Education

Advisor/Client: Dr. Thomas Daniels

Team Members -- Roles:

Yidong Liu – Team Leader

Xinian Bo – Team Webmaster

Niklas Jorve – Team Communication Leader

Branden Sammons – Key Concept Holder, Secretary

Jonathan Krueger – Key Concept Holder, Manager

Weekly Summary:

We used our time this week mostly constructing a concrete dimension for the final PCB board. We decided that our best option would be to construct our own case, and because of this we needed a more final dimension of the board. We will build our case by constructing a small acrylic box. We also had our first laboratory meeting where we met for a 3 hour chunk of time to work on the project together. These meetings should help to speed along the progress of the project in large chunks. During our group meeting, we discussed the layout of the components on the PCB.

Weekly Accomplishments:

1. Created first prototype of case
2. Created prototype dimensions for PCB
3. Organized first group laboratory meeting
4. Laid out components in PCB draft

Advisor Meeting (1/19/16):

Duration: 1.5 Hour

Members Attending: Niklas Jorve, Yidong Liu, Jonathan Krueger, Branden Sammons, Xinian Bo

Notes: During our advisor meeting we did a rough recap of our current progress. We talked about the current state of each component of the PCB and worked on finalizing the parts list. We also spent a

significant amount of time discussing the possibilities for the case, and decided that designing our own custom acrylic case would be the best option. We created rough dimensions for the case so that a prototype could be built.

Group Lab Meeting (1/20/16):

Duration: 3 Hours

Members Attending: Niklas Jorve, Yidong Liu, Jonathan Krueger, Branden Sammons, Xinian Bo

Notes: During our lab meeting we worked on getting the Intel edison to communicate with the sensors. We also worked on connecting the Edison to the computer over a bluetooth connection. Finally, we worked on the board layout and creating a draft in the ModelSim program.

Group Meeting (1/21/16):

Duration: 1.5 Hour

Members Attending: Niklas Jorve, Yidong Liu, Jonathan Krueger, Branden Sammons, Xinian Bo

Notes: During our group meeting we created a draft of a layout of each component. We laid out each piece and also included mounting holes and charging ports. We now have a better idea of the realistic dimensions of the PCB design.

Plans for Next Week:

1. Work on finalizing board dimensions
2. Figure out communication with Edison and computer over Bluetooth
3. Create draft 2 of PCB layout working on adding data connections and power connections

Individual Contributions:

Niklas Jorve	Attended meetings, worked on lab report, worked on Edison data connections, worked on Edison Bluetooth connection
Yidong Liu	attended meetings, worked on PCB design
Branden Sammons	Attended meetings, worked on SPI interfacing
Jonathan Krueger	Attended meetings, worked on edison bluetooth connection
Xinian Bo	attended meetings, worked on website

Project Contributions:

Member	Project Time this week (hours)	Total Project Time (hours)
Niklas Jorve	8	75
Yidong Liu	10	72
Branden Sammons	8	61
Jonathan Krueger	10	72
Xinian Bo	7	56