

Senior Design 491 Weekly Report 6

Week 6 (10/5/15 – 10/11/15)

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

Jonathan Krueger – Key Concept Holder

Weekly Summary:

We used our time this week to start discussing the design document and the plan for building our PCB. We have decided that we will build our PCB on top of an Arduino Due and power both boards with rechargeable LiPo batteries. The structure of the final device will be similar to the current Arduino Esplora gamepad device with buttons, a joystick, and sensors. The PCB will house the sensors that we decide to include and the bluetooth communication while the Due will contain the microprocessor. This will allow us to build on top of the Due and utilize the ATD and DTA converters.

Weekly Accomplishments:

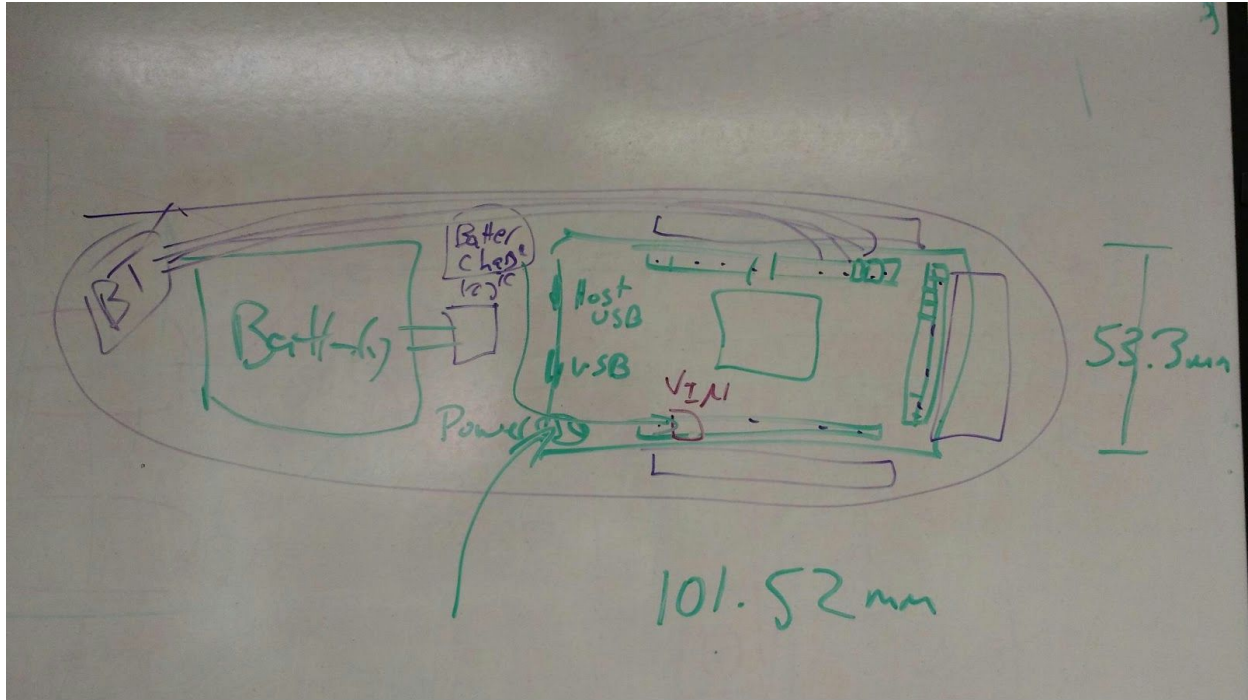
1. Finished and submitted project plan
2. Designed outline and assigned portions of design document
3. Started designing the PCB we will create

Advisor Meeting (10/5/15):

Duration: 1 Hour

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

Notes: During the meeting we showed Dr. Daniels our draft of the project plan. He looked over the document and approved our first draft. Next we discussed the possibility of creating a PCB over a Arduino Due. We spent the hour looking at the data sheet of the Due and trying to come up with a general layout for the PCB. The diagram we came up with is shown below.



Group Meeting (10/9/15):

Duration: 1 Hour

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

Notes: During this group meeting we created an outline for our design document and assigned a group member to each section. We will be presenting our first draft of the design document to Dr. Daniels during our next advisor meeting.

Plans for Next Week:

1. Finish a rough draft of the design document
2. Start to design a PCB design in CAD or Eagle

Individual Contributions:

Niklas Jorve	Attended meetings, compiled weekly report, worked on design document
Yidong Liu	attended meetings, worked design document
Branden Sammons	Attended meetings.

Jonathan Krueger	Attended meetings, conducted meetings, worked on design document
Xinian Bo	Attended meetings, and worked on eagle software

Project Contributions:

Member	Project Time this week (hours)	Total Project Time (hours)
Niklas Jorve	4	17
Yidong Liu	2.5	13
Branden Sammons	2	11
Jonathan Krueger	3	14
Xinian Bo	2.5	10.5