Weeks 11 - 12 Status Report

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**Section:** 9 AM

**Date:** 3/29/18

1. What obstacles did your team encounter over the past 2 weeks, and how did you individually contribute to their resolution? Provide specific examples. *(25 points)*

One obstacle our team encountered was soldering and testing our subsystem PCBs. I contributed to the resolution of this challenge by soldering my own subsystem PCB, using both hand soldering and the oven. I then figured out how to install the MPLAB X IDE, configured a digital output pin, and got in-system programming working so I could flash an LED on my board. Another challenge we faced was bringing all of our PCB files together for our full system board. I helped resolve this by modifying some of my footprints and passing files between members of my group as needed.

2. What do you plan to demonstrate next week in the Unit Testing Demonstration - Hardware? *(25 points)*

We plan to demonstrate the capacitive touch sensors sensing tactile input by turning on and off a vibrator motor. We plan to show the e-ink display receiving power from the board. We plan to demonstrate the magnetic sensors’ output changing when a magnet is placed near them. We will show the photon receiving power from the board.

3. How will you individually contribute to the project in the next 2 weeks? *(25 points)*

I will find out how to program I2C communication with our microcontroller. I will get the PIC interfacing with our I/O expanders. I will make a library for easily reading the digital inputs from the I/O expander. I will also help solder and debug our full system PCB(s), especially the parts relating to my subsystem.

4. What resources do you need to be more productive? *(25 points)*

We need a smaller nozzle on the solder paste gun, and maybe a second pump, for soldering the surface mount components on our full PCBs. We also need soldering irons with smaller tips and soldering tweezers for soldering surface mount components on our full PCBs. Finally, we need more flux, helping hands, tweezers, solder, surface mount resistors, and surface mount capacitors in Peralta Labs.