Weeks 11 - 12 Status Report

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**Section:** 9 AM

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1. What obstacles did your team encounter over the past 2 weeks, and how did you individually contribute to their resolution? Provide specific examples. *(45 points)*

One of the obstacles we encountered was soldering our full PCB. I contributed by soldering our op amp and the headers for the PSoC to our PCB. Another obstacle was preparing the minimal PSoC software needed to demonstrate our hardware on Monday. I contributed to this by writing a simple PSoC program to demonstrate each of our subsystems functioning on the board.

2. What do you plan to demonstrate next week in the Unit Testing Demonstration - Hardware? *(45 points)*

We plan to demonstrate our PSoC turning on and off our two actuators and printing values from a sensor. The devices will all be running on our PCB, which will be soldered and connected to an external power supply. We finished soldering our PCB on Wednesday. We have also performed a continuity check on the board and tested our individual PCBs. However, we have not yet tested the whole PCB.

3. How will you individually contribute to the project in the next 2 weeks? *(45 points)*

In the next two weeks, I will contribute by writing the user code for our PSoC, which we will be running when we demonstrate at innovation showcase. This will involve interpreting the sensor data, communicating with a smartphone app, and controlling the actuators to wake up the user. I will follow our state chart diagram to write this software.

4. What resources do you need to be more productive? *(45 points)*

Some blog entries about PSoC-specific programming would help transfer what we are learning in Zybooks to the PSoC. Specifically, an explanation of the provided UART and Bluetooth code would be nice. Also, I would appreciate information about setting up the top design in PSoC Creator, especially hardware elements like an ADC and PWM signal.