Weeks 9 - 10 Status Report

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**Section:** 9 AM

**Date:** 10/25/17

1. What did you individually learn from the feedback you received and/or from reviewing others’ designs during the design reviews? Provide specific examples. *(45 points)*

I learned, in the state chart diagram, I need to include a specific amount of time in our delay block, rather than leaving the amount of time unspecified. I also learned that in our software, I need to include a loop to check to make sure the user does not get up and then go back to sleep. With the way I originally wrote our diagram, the user could briefly get up and then lay back down without the software realizing. I need to include a loop to check that the user stays up for a certain amount of time before exiting.

2. How have you individually contributed to improving your team’s design since the design reviews? Provide specific examples. *(45 points)*

I have improved our software design by updating our state chart diagram with the changes described above. I have also improved the viability of our design by testing my individual subsystem PCB and verifying that it works as expected.

3. What are the biggest challenges your team will face for the rest of the semester, and how do you plan to overcome them? Provide specific examples. *(45 points)*

One of the biggest challenges we will face is integrating our electronics with our pillow. We are unsure of what range of analog readings we will get from our pressure sensors when they are buried in foam and an actual person is lying on them. We are also unsure of what the vibrator motors and buzzer will feel and sound like when they are embedded in foam. In order to overcome this challenge, we have finished our PCB layout and are currently getting it manufactured, and we have bought our foam, so that we can test the electronics in the foam as soon as possible.

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

I will contribute by updating the aspects of the Gantt chart that pertain to my role. I will also solder my components onto our full PCB after it is done being manufactured. I will help program our PSoC and test our full PCB for my subsystem.