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Accessible Incontinence Control Device  
Team 8

Work Completed

This week I focused primarily on improving the implant code I have written to control the micro pumps and to obtain the stretch sensor readings. For example, I decided to change the Adin() command that would return the converted stretch sensor values to a Tadin() command. The Tadin command is an improvement over the Adin command because it will return the average of ten Adin values, giving more precise results.

I also changed the code so that the wireless communication, which has already been set up as a serial connection on a protoboard, would be set up as serial communication in the code. I was also able to modify some portions of the code that will accomplish the sending and receiving of wireless signals. The figure below shows the pins that I could designate as RS232 channels.

![Figure 1](image)

Some time was also spent this past week on setting up the test setup. I placed an order for a bladder model from a children’s science kit. Hopefully this bladder model will be flexible enough to get stretch sensor readings off of because it would improve the appearance of our test set-up for the competition. We also started looking at packaging options for our implant this week. Shown below is a sample from okwenclosures.com that could be an option for us to house the implant in.
Future Work

Tasks I need to accomplish in the next couple of weeks is providing battery power to the micropumps in a voltage divider circuit, using the test set-up to get stretch sensor values for volume percentages, and writing implant code. My goal is to be done with my code by the end of spring break so that there is a lot of time to troubleshoot it. In order to accomplish this I will need to work with Zack on the wireless portion of the code.

Also, the group is expecting the artificial sphincter parts to come soon so we will need to be building our pump controlled sphincter.

Project Review

Our group has made significant progress on writing the code for our device. Once the sphincter pieces come in we will be able to progress on building our device as well. If the sphincter design we developed works as anticipated our group will be in a comfortable place as far as timing for finishing the project. If our sphincter design fails we will be behind and we will need to put in a lot of additional time in the lab.

Hours Worked
I worked 11 hours this week.