WORK COMPLETED

Since the end of last semester, I have taken the machine shop certification class from January 3rd through the 8th, so that I may assemble/cut any pieces of our project as needed. I also learned that we may not use the machine shop on Fridays this semester during our senior design lab, as there is a class occurring at that time. I started work on our team’s paper to submit for the Bioengineering Conference at SUNY. This was basically taking information from our 290 Final Report and narrowing it down to the required details described in the abstract form. Our team signed up to have our weekly meetings on Mondays at 1 p.m.

I sent an email to Dr. Hallowell to update her on the status of our projects. I asked her that if for some reason our eyeblink sensor circuit does not work, if our client Stacey is able to make clear auditory words for a voice activated system, or if she is able to make enough movement with her hands to touch a gross motor switch. I also directed Dr. Hallowell to the team’s website, where she may keep track of our progress throughout this semester. Nemi and I updated our front page of the site to include information about Passion Works Studio. We also formatted it to include room for our weekly reports, so that they may be easily uploaded there in the future.

As mentioned in our Final Report, our team decided on aluminum pieces for the guiding beams of the headpiece. I went to the scrap part of the machine shop and found some long pieces of aluminum 6061 that may be suitable for our project. I also picked up some Plexiglas, as this may be a good lightweight choice for the beams as well. Additionally, I happened to pick up an aluminum ring that will be able to attach to the guiding beams, yet guide the head gooseneck properly. On our headpiece part, I took off extraneous stickers that only applied to warnings when using the headpiece as a protective shield unit.
Our team got a Parts Order back from Bill asking for a specific size for the wrist guard piece. After discussing this with my team, we decided it would be best to look for a “one size fits all” wrist guard, so that it will be adaptable to multiple wrist sizes in the Passion Works Art Studio. After some research, I found that there are basically no “one size fits all” wrist pieces for adults, only children and teens. I came across one that is “one size fits all: that seems suitable to our specifications. My team and I put in the order to Bill so that it will be ordered on Monday.

In the lab this past Friday, I tested the weight of the arm gooseneck by attaching it to my arm with pullties. After moving my arm around a bit and playing with it, I decided that this is a weight that Stacey can handle on her forearm as well. I also sketched out the sizes of the all the pieces I picked up from the machine shop to determine the largest diameters I could get from each piece. I found that the aluminum 6061 could have a diameter of about 0.33 inches, while the Plexiglas can have about .475 inch diameter. I also helped Sirisha compile our expenses into an excel spreadsheet.
**FUTURE WORK**

By Friday February 2\textsuperscript{nd}, I hope to have cut down the guiding beams down to the appropriate sizes, so that the group may test which material will be better for our purposes. I also plan to have the Bioengineering Conference paper done so that Bill and Dr. Enderle will have time to review it before submission. I am also going to research ways to attach the guiding beams to the headpiece, and ways to keep the headpiece in a secure, stationary manner.

**PROJECT REVIEW**

As of right now, I feel that our team is on time according to the schedule we previously set. One of the main concerns to focus on is how to pull our speedometer cables through our gooseneck tubing. Also, when we receive our motor, we need to test to see if it will in fact turn the speedometer cable. The team needs to research the fiber optic eye blink circuit within the next week or two to finalize our plans and order the required parts.

**HOURS WORKED**

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