**PROJECT IDENTITY**

Head-Mounted and Arm-Mounted Art Design Systems  
Week 5  
February 23, 2007  
Becky Lussier

**WORK COMPLETED**

This week was mainly spent still exploring the different options possible for a new gooseneck for the headpiece. I called Moffatt, where we had ordered our first 36-inch gooseneck, to see if they had any 36-inch length goosenecks with an inner diameter of .125 inches. This was smaller than our original ID we had wanted of .33 inches, so I asked our contact there if there were any lighter options for the length we desire. The gentleman said that for this length of gooseneck, the one he quoted for us last was the smallest size they made it in. This had the .33 inch inner diameter and weighed 1 pound 15 ounces. I got the actual weight of our current 36-inch gooseneck: 2.24 pounds. The new gooseneck from there would only save us about .4 pounds, which is definitely not enough in our case. This led me to search different places online and to look at some lamps at IKEA. I found that the goosenecks that looked long online at the IKEA website were definitely not long enough for our use. I am thinking at this point our team should reinforce our current speedometer cable with some copper along its length (like using a few wire hangers to add rigidity to our speedometer). The other option we have is to make our headpiece in a permanent position with lightweight metallic tubing.

I went to the machine shop and made the two pieces to attach the motors to the inner speedometer cables. With the help of Rich, I created these using about .3 inch diameter aluminum stock. Both ends were drilled in with different size drills to accommodate the different diameters of the motor and speedometer cable attachment sizes. Lastly, the pieces were tapped to fit different setscrews: one setscrew for the motor and two setscrews for the cable. Rich is allowing me to hold onto the small Alan wrench in case my team and I need to make any adjustments at any point in time.
The group and I also started doing some research on how to use our eyeblink switch that came in. The set did not come with a lot of instructions, so I am trying to find more information online still if there is any available.
The whole team tested how the new attachments would work between the motor and the speedometer cable. We found that it worked perfectly, to our great pleasure. We then attached our compasses, which also came in, to simulate how our final product would work. The squiggles came out well, but we will probably only use about 6 volts in our circuit, since the “squiggling” gets too fast after that range. Sirisha and I also noted how it is difficult at times to keep compass to paper contact. We now plan to attach the speedometer cable to the stable part of the compass that touches the paper, instead of at the top to add some extra pressure. Also, Sirisha came up with the idea of adding a ball type thing at the bottom of the compass piece so that it will be able to move around freely all over the paper.
FUTURE WORK

By the end of this week, I will like to make a final decision on the 36-inch gooseneck or whether not to use it, since we really need to get to work on the head portion of the project. I am going to go to the machine shop to machine those two adaptable pieces that will attach the inner speedometer cable to our newly arrived compasses. I am going to do more research on the eyeblink switch and how to possibly incorporate relay switches into our circuit. Also, if the neoprene pieces come in, my team and I will start to work on attaching the armpiece to the arm gooseneck.

PROJECT REVIEW

As of right now, our team is running slightly behind since we have had troubles with certain parts of our project that we did not foresee, like the head gooseneck. Now that we have our main elements of our circuit, we can focus on that until we get all the pieces in for the building of certain parts of our two projects. My team and I plan on working over spring break for a bit, so that we may be kept on our timeline in the long run.

HOURS WORKED

In Lab: 7
Outside of Lab: 3