Project Identity

Head Mounted Art Device, Game for Improving Speed and Accuracy of Name Recall, and Alternative Devices for Mouse Input
Week 2
28-Jan-08
Derek Kulakowski

Work Completed

Due to some problem with information being forwarded to the office, almost all of the parts that we had ordered were not put in for delivery. For some reason, the requisition forms were never put through and were just thrown out, leaving our team in a little bind. With only limited parts to work with, the first day of senior design we were not able to do much, other than revise our requisition forms and test the infrared LEDs and sensors that were shipped. After talking with Jennifer about the problem, it came to her attention that we have three separate projects, each with a budget of $750.00. After discussing this with her, she made the correct changes and most of the requisition forms that were needed were filled out and sent in for delivery of our parts. Luckily, a sheet of plexiglass was leftover from a previous project which was made available to us. This helped tremendously because now we had more to work with instead of being dead in the water.

The main focus of my time in the senior lab was on the alternative mouse input system. Since the plexiglass found in the parts room was available for use, I took advantage of that and started designing the housings for the two input systems. The first input device I decided to work on was the foot mouse. I drew up the dimensions that were needed for the top and bottom pieces of the foot mouse. I eventually cut the sheet of plexiglass into two rectangular pieces that measured 8 ½ in. x 4 in. These pieces were then sanded around the corners to create a rounded edge. Below is a picture of the finished piece for the foot mouse.

![8 ½ in x 1/8 in](image)

![8 ½ in x 4 in](image)

The top and bottom pieces of the foot mouse will be attached to a 24 in. long, 1 ½ in. wide strip of plexiglass which will be formed to the shape of the foot mouse. By placing the strips slightly of center with one another on the top and bottom, the housing will be able to slide together and be sealed with minimal residue. Below is a picture of the strip and the finished product.
Along with the foot mouse, design of the track ball housing has also be started, although only strictly being drawings of possible ideas. The basic idea is similar to that shown in the final report from the previous semester.

**Future Work**

Work in the future includes the completion of the housing for each of the input systems, which will probably occur next week. Also, as long as the parts come in next week, placement and attachment of the internal parts for the foot mouse can be started, if not finished by next week. The track ball system can be completed to an extent, but without the acrylic ball, the placement of the braces and mouse LED scanning system cannot be attempted. During the completion of the housing for the input devices, the games accompanying the alternative devices will also be worked on by Andrew because he is familiar with the Gamemaker software we have decided to use. The Art Instrument will be the least worked on because we feel that if we can complete the two smaller projects first, it would be to our benefit to focus on the Art Instrument singly.

**Project Review**

I believe we are moving at a decent pace. If all goes well, the input systems could be finished by next week, only leaving the games and voice recognition games left until we can focus on the art instrument. With my two other partners giving as much time as I have, there shouldn’t be any problem in finishing the input devise next week or early in
the week after. The voice recognition project is a little more challenging, but Matt has been steadily pushing through the bugs.

**Hours Worked**

10 hours