Project Identity

Head Mounted Art Device, Game for Improving Speed and Accuracy of Name Recall, and Alternative Devices for Mouse Input

Week 4
2/15/08
Derek Kulakowski

Work Completed

This week, construction of the track system and construction of the internal components of the foot mouse were the main concerns. The track system is the biggest hurdle that we must overcome in terms of manufacturing. The carriage for the screw actuator was machined, coming out to be 2 ½” x 3”. This piece was then screwed to the sliding guide using allen-head screws. The carriage is now finished, but after discussion with Rich and Serge at the machine shop, the next part that should be finished should be the ends of the track, where the guiding rod and threaded rod attach. Below is a picture of the carriage attached to the sliding guide.

The design of the screw actuator was completed with the help of Rich and Serge. Below is the final design that we have come up with. The track system will be mounted on plexiglass, preferably ½” thick so that the unit will be sturdy. Although the system will be cumbersome, this will not be an issue because our client encouraged us to have the design rest on a desktop. This makes both of our lives’ easier, allowing us to not have to worry about the weight issue with the standing easel.
The foot mouse internal design is complete and ready to be tested. The internal pieces are in place and the pedal switches have been wired. After testing the foot mouse, the unit can be mounted on the plexiglass with the switches and the system will be complete.

The Wii remote will arrive Saturday, allowing us to begin testing with the blue tooth module we are borrowing from Dave Price. We will be purchasing our own module, but until it arrives, Dave has permitted us to use his module until that time. From researching the design and experiment from Johnny Lee on the internet, the Wii remote can be linked to the blue tooth and can be used on the computer. After this is tested, we can begin to use a microchip to read the data sent by the remote through text.
Future Work

The foot mouse should be completed by the end of next week. After the testing is complete, it will be mounted and ready for the client. Also, the track ball housing should be finished. This was planned to be completed or near completion last week, but there was an issue with ordering the track ball, which has hindered our ability to construct the internal design of the system. The problem has been resolved and the track ball is being delivered next week. The track system will be completed next week as well, allowing us to focus on mounting the motors and beginning the electrical design and programming using the microchip and Wii remote.

Project Review

Progress this week was slow, because of poor planning, poor contribution, and because of other various problems that have been resolved. The upcoming week should prove promising. I have a lot of faith in my team members and I am anxious to begin the week. Many hours will be put in next week to finish the work we need to. It’s time to get these projects finished and ready for the client.

Hours Worked

Week #4 Total Hours: 11 hours