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
Matt Zywiak

Work Completed

The work completed by me this week once again has been focused on completing the voice recognition game. Construction of two more panels for the game was finished with all variables and controls being named and declared. Pictures of the new panels made during this week are contained below.

Once these two panels were completed the links between all of the panels was coded into the program. This allows the buttons such as START GAME and LOAD DATA to send the individual playing the game to the appropriate screens. Once these buttons are pressed they will open up their respective panels and close and unload the panel in use. These will be very important in the game so that the user will not have multiple panels opened while they are trying to play the game.

This week I also worked on setting up the picture loading capabilities for the computer game. To improve the speed with which the pictures are displayed on the screen while the computer game is running the all the pictures and names will be stored in arrays as they are uploaded through the load data screen. They will be chosen at random from a random number generator which has an upper boundary that is the size of
the array. Once a picture has been chosen it cannot be chosen again so a Boolean array will show which ones had already been picked.

I also helped Derek to fabricate the case for the foot mouse which will contain the LED circuitry that will be tied to the computer. We machined the bottom of the foot mouse out of plexiglass taken from the BME store room and also were able to fabricate the side wall for the foot mouse and epoxy the two pieces together. I also helped with the fabrication of the box which will contain the trackball. This box will house the ball inside along with the circuitry necessary to move the mouse on the screen and send the appropriate information to the computer.

**Future Work**

Over the next week I hope to complete development of a working prototype of the game that does not include voice recognition. All panels will be working and test pictures will be loaded into the game to test the viability of the program itself. Once this game is completed and working without voice recognition capabilities we will then begin to integrate the voice recognition code into the game.

We also hope to completely fabricate the second track for the head mounted art instrument. We will be doing this in the machine shop with help from Rich and Serge. The second track will be much lighter than the first one in that it will contain only two metal rods and a carriage containing the art instrument. We will also order the two motors that will be used to power the device and work on the infrared motion detection using a wii controller.

Once the housing for the two alternative mouse inputs is complete we will begin work on placing the internal circuitry inside the two cases. Once this is done we will connect the two devices to the computer and begin using them to play games that have already been developed for the two devices to test the speed and accuracy with which they can be used.

**Project Review**

I believe that we are moving along with our design project at a very good pace and that we are meeting the goals of the first two weeks. I think every group member is contributing equally to the completion of the project and unless we encounter problems with the Speech Recognition Engine or the Infrared sensors I think we will be completing our design project right on time.

**Hours Worked**

13 hours