Project Identity

Head Mounted Art Device, Game for Improving Speed and Accuracy of Name Recall, and Alternative Devices for Mouse Input
Week 9
3/28/08
Derek Kulakowski

Work Completed

Last week, the actual track system was complete. Missing components to the entire project included the microchip programming, motor mounts, and the base support for the system. The first motor mount was started last week, and has been finished this week, except for two holes for attachment. Pictured below is the motor mount, which has been tested with the motor and has proved to be successful in significantly decreasing the vibration while the track is running.
The second motor mount area has been inspected and has found to be much easier than originally thought. The attachment is only about a \( \frac{1}{4} \)” raised off the base of the screw actuator. This only requires a raise in height of the motor a little more than \( \frac{1}{4} \)”.
Since this is the case, a simple spacer is all that is needed to raise the motor and properly support it while it functions.

The frame for the track system will require angle bar, which is available at the machine shop for purchase. Also needed was \( \frac{1}{2} \)” drilling rod, which was obtained last week from Serge. This will be used as the gliding rod for the end of the actuator. Also needed is another guiding mechanism, which will need to be ordered next week and will cost around $55.00. Below is the design of the frame for the track system.
The microchip has been connected and a programming skeleton has been added to the chip. We will build upon this skeleton program to configure our exact needs for this project. Using the accelerometers and the analog signals they send out, we will need to process that information and output a digital signal to the motors for proper operation.

**Future Work**

Some work remains to be done on the track system until it is completely finished. The motor mount is completed except for the two bottom holes to be drilled for attachment to the actuator frame. Also, the track’s frame has been designed, but construction still remains. Also, particle board needs to be purchased and sized to fit the final frame of the track for mounting purposes. As always, the microchip still needs to be programmed. This should prove to be the most difficult part of the project.

**Project Review**

This week’s progress has not matched some of our previous weeks, but has been one of the more productive weeks out of the year. Our track system is finally complete and the microchip programming has begun, easing the tension of the approaching deadline. The design for the track frame and base has been drawn up leaving only the construction, which will Hopefully go smoothly.

**Hours Worked**

Week #9 Total Hours: 13 hours