Work Completed:

For the alternative mouse system, as has already been stated both games have been completed, however both games have been resaved using a full version of gamemaker software, with this addition some revisions may be made. The foot mouse is complete for the most part, straps for the mouse were acquired and need to be integrated. A lot of work was done on the track ball. It is also nearing completion. After completing the holder for the track ball we did some testing, unfortunately we found that the optical sensor for the mouse did not track the movement. To assist the optical tracking, we painted the track ball, a uniform color (blue) still had optical tracking issues. We then added a second color yellow so the sensor could better distinguish the movement. This work out nicely, and a finishing layer was added. The finished track ball is below. The track ball smoothly runs over the plastic with the varnish. The optical sensor is mounted underneath the track ball. This was done by machining slits in the holster and mounting the optical sensor onto them. The outer housing for the track ball system has been machined and is ready to be wired in the following week.

The second project, the game to improve name recall is progressing well. The game is programmed. It is able to call forth random pictures and assign names to a multiple choice sheet. The voice recognition software has been integrated, and is in the process of testing.
The mounted art instrument has posed a lot of difficulties for us. Continued work has been done on the X-Y track system, the second track for the system was completed over spring break. In order to propel this system motors will need to be attached. The motor movement will be done with motion accelerometers which have been already purchased. I have begun work with the PIC microcontroller, however most of the programming will be done in the following weeks.

**Future Work:**

Alternative mouse input system - Things that still need to be done are as follows: Foot mouse needs to be mounted on plastic backing, a foot strap needs to be integrated, and then finally painting needs to be done. The track ball needs to be placed in the housing the buttons need to be fitted and wired. After wiring assembly of the entire system and painting will need to be done on the outside housing. We do not anticipate any problems, and the track ball should be completed within the next few weeks. The housing needs to be assembled internal wiring completed. Based on user feedback some changes will be made to the two games. This will result in completion of our first project.

The game to improve name recall is also nearing completion, final testing with voice recognition software is starting. Continuation with the voice recognition integration will continue over the next few weeks. Additionally we would like to add a ‘relationship’ variation to our game, this will be done after the voice recognition is completed. Additional changes may be made to make the program more eye pleasing and user friendly.

Our last project still has the most to be done, however a lot of work was done over the spring break. The second track for our mounted art instrument was completed, this was assembled to our first track system. So we now have a X-Y grid system finished. Motors will need to be attached. Work will be done with our PIC, and programming motor control. Some additional machining will be done to mount the entire X-Y system onto a base. Next week we will spend lots of time working on this.

**Hours Worked:**

Andrew:
Monday – 10 – 2:30 (4.5 hours)
Tuesday – 2 – 3:30 (1.5 hours)
Wednesday – 10 – 11:30 (1.5 hours)
Sunday – 6:30 – 10:30 (4.5 hours)
Total Time = 12 hours