Work Completed:

This week there was some setback in progress. Due to inclement weather Friday, a day when lots of work is normally accomplished was canceled. However despite not having Friday to work, many things were still done.

For the alternative mouse system, as has been previously stated both games are completed. I have also acquired a full version of the software (as opposed to free version), this will allow several features to be included. The loading screens can be customized and the ‘gamemaker’ trade mark will not be displayed. This will give the game a more professional look. There are other additions that a full version of GM provides, but will most likely not be too useful to us. The wiring and housing for the foot mouse is also complete, the foot mouse is working well and can be used with the software that we have developed. There is an increased difficulty when using a foot mouse, and that difficulty was incorporated into our game. Increased times for levels should allow for this issue. The track ball mouse system has also begun construction. The track ball has come in and plans for how we will build the housing have been finalized. The general idea is to have the track ball placed in a crown. The material interface provides extremely low friction. The general idea for the trackball housing is shown below. This has been tested with the plexiglass material and the track ball and we believe that this is the most optimal way of creating our track ball mouse. Construction would have started Friday, however due to setbacks it will begin on Monday.
The second project, the game to improve name recall is progressing well. The game is for the most part completely programmed. It is able to call forth random pictures and assign names to a multiple choice sheet.

A slight revision has been done to the design of the head mounted art instrument. The plan is now to use microphone, and when the user makes sound the art instrument will move. In addition to this there will be a joystick input which will allow finer movement for users who are able to move parts of their body, or for assistants.

**Future Work:**

For our alternative mouse systems both games and our foot mouse have been completed. Work on the track ball should begin next week. We do not anticipate any problems, and the track ball should be completed within the next two weeks. All that needs to be done is to create the housing, wire the system and then finally test using the two games that were developed. This will result in completion of our first project.

The game to improve name recall currently has two issues, these need to be resolves. Firstly the game need to be able to save ‘albums’ and have those easily uploaded into the screen. Currently is only able to upload individual pictures, but should be fairly easy transformation to have the game upload more. In addition the frame size of pictures need to be scaled before using the game. Ideally we want to have the frame scale automatically when playing. This will require additional programming and will most definitely be done if time allows. Next week the plan is to integrate voice recognition technology. Hopefully this will be a smooth process to interface our game with a voice input. Based on the tests we have run it should not give too many complications. I am confident that this can be completed with the next three weeks.

Our last project is proving to be the most difficult. Due to some miscommunication we have had to edit our plan for the mounted art instrument. As has already been stated, we believe that a sound wave is a good way to have an completely immobile user interact with the drawing device. It should be easy to interface a voice input into an electrical signal. If the signal reaches the threshold random movements will be applied to the motors. However to do this we will need a different type of motor. We’ve concluded that stepper motors may be required but more research will need to be done.

**Hours Worked:**

Andrew:
Monday – 10 – 1:30 (3.5 hours)
Wednesday – 2 – 3 pm (1 hour)
Saturday – 12 – 1 (1 hour)
Sunday – 1 – 4:30 (3.5 hours) + 6 – 9 (3 hours)
Total Time = 12 hours