

Lots of Research

To Do from last week: Come up with project proposal, continue working on Experiment application when provided with new materials.

This week was very “researchy” so I won’t break it down by day, but rather give an overview of the whole week. I came up with my project proposal, which I will be working on the rest of the summer. Basically, I would like to integrate the Kinect into the Alex software. This could come in a few different forms: eye tracking, gaze tracking, head tracking, gesture mirroring, using motion tracking to create animations, monitoring a participant’s body movements (i.e. a lot of fidgeting), etc. I will probably start with the gaze/eye tracking work, since that is what was first suggested when I was discussing project ideas with Samantha.

After I had my proposal, I began researching these various topics, and reading lots of research papers on them. I also looked into the Flexible Action and Articulated Skeleton Toolkit (FAAST), since that will most likely be helpful in moving forward. It uses OpenNI to track a person’s body using a skeleton structure that represents where certain body parts are. You can then create actions that certain gestures will initiate. For example, you can set it so that a turn to the left of 30 degrees presses the key “h”, which in turn could be a keystroke in the code you are working on.

Besides the researching, I was also adding the new pictures to the experiment application as Rebecca finished them. The images are all added now, which make the program one step closer to being finished. Now all we need are the actual WAV files and the agent images for the program to be completely finished.

I also went to a Girls Engaged in Math and Science (GEMS) Meet and Greet at a local middle school. They wanted to bring in female math and science role models to talk to the students. It was a pretty cool organization. I wish they had had something like that when I was in middle school.

To Do for next week: Start working on my project!