Work Completed:

This week we were able to come up with a successful redesign of our arm and leg stabilization systems. We decided to use the 80/20 aluminum extrusion system.

Figure 1. Aluminum Extrusion cross section

This will allow the stabilizers to be more functional and precise, along with being much sturdier. It involves the use of pivots and linear bearings for greater accuracy in positioning and more functionality. We will use non-magnetic (i.e. aluminum) hardware instead of the steel hardware provided by 80/20. We contacted Quing Zhu to make sure the use of the aluminum would not have adverse effects in the imaging platforms, and she said it would be ok. Along with the we ordered the hand knobs to be used for our tracks and with the bearings on the 80/20 extrusions. The following Visio drawings show what our arm and leg stabilizers will look like using the 80/20 extrusions.
Future Work: The upcoming week leaves to find hardware to use with the 80/20 extrusion. Also, attachment of the arm bar needs to be addressed and completed in the machine shop as the timeline calls for next week, due to the redesign of our arm stabilizers, which were scheduled for this week. We need to order the side boards for our base due to the difficulty we had getting a quote from modern plastics. I also plan on developing a back up plan for the case of the flexion incase the side boards do not work.
**Project Review:**

So far our project is still going on pace. We have no need as of yet to worry or make and drastic last minute actions to assure the completion of it. Currently the only minor set back is waiting this week for some material, but the problem is not great.

**Hours Worked:**

- BME Lab - 11hrs
- Independent work – 2 hrs
- Total – 13 hrs