Patient Positioning Aid

Week 6
Date: February 28, 2006
Bhavin Patel

Work Completed:

We were able to get a good amount of work done this week. We received our 2 80/20 linear bearings order which we miscalculated during the first order. With these the leg stabilizer bases could finally be complete. I took apart the set up leg stabilizer and took the two bases into the machine shop. There I was able to use the milling machine to drill the slots which allow us to easily slide the base off and on. This will be really handy for the hospital staff, since there will be no need for them to unscrew the tightening knob completely to slide off the base, and in turn there will be a less of a chance to lose the parts. I set up the two bases by attaching the extrusions to them and the linear bearings. Figure 1 shows how the set looks

Figure 1: Set up of Leg Stabilizer Base
In addition to this, I started working on the leg stabilizer bars. I took the HDPE and cut it into the correct dimensions using the saw. Then I milled it to an exact size. Before I start to mill the arc in the bar I wanted to make sure that the bar fit into the positioning aid width wise, and so I decided to wait until after the setup was done.

![Figure 2: Cutting the Bar from the HDPE](image)

**Future Work:**

For the future I will finish the leg stabilizer bars and attach them to the linear bearings. This seems easy enough make milling them will take quite a while. Christen and I plan to start with the attachments for flexion prevention as soon as our individual components are finished.
Project Review:

So far we are right on schedule. We have not really fallen behind, but need to alter our timeline in order to more accurately reflect our progress. We plan to finish our design as soon as possible in order to begin testing. By doing so, we will have adequate time to make any necessary changes if needed.

Hours Completed:

BME lab: 7 hours
Machine Shop: 2 hours
Outside lab: 1 hour
Total: 10 hours