Patient Positioning Aid

Week 3
Feb 7, 2006
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Work Completed:

This week we were able to get a lot done on the overall design of the positioning aid. We were able to decide on incorporating 80/20 parts into our design in order to achieve versatility. The arm stabilizers will include pivot brackets in order to adjust 90 degrees. Figure 1 shows the setup for the arm stabilizers.

Figure 1: Arm Stabilizer set up

Linear bearings will be used to slide the leg stabilizer bars and them at an exact location. Figure 2 shows the setup for the leg stabilizer base.

Figure 2: Leg Stabilizer Base
The parts needed from 80/20 were filled out on the order form and submitted on Friday.

During the lab we were able to finish machine shop drawings and come up with ideal dimensions for the hand bar. It will be 18” long and we plan on using PVC glue to connect the top bar to the sides. I took the PVC rod to the machine shop and was able to cut it into the desired dimensions.

We also researched grips for the hand bar and have a few different manufacturers lined up. This week a lot of time was also spent on searching for the proper aluminum screws and bolts to connect pieces of the positioning aid.

Future Work:
For future work we need to hand in the order form for the PVC needed for the support system. We weren’t able to get it from the previous manufacturer, and are currently working to get a quote from modernplastics.com. We also will order the aluminum bolts needed. The 80/20 material should arrive this week and we will spring into action to put together the arm stabilizer and have it ready for next week.
Project Review:

We are not behind our timeline, but need the necessary material for future work. The arm stabilizer design is complete so we do not need to worry about falling behind due to it. We need to get the order forms in as soon as possible in order to be able to start working on the major components on time. No last minute action is necessary since we accounted for setbacks in out timeline.

Hours Completed:

BME lab 8 hours

Machine Shop: 1 hour

Outside lab: 1 hour

Total: 10 hours