Week #6  
February 28th, 2006  
Andrew Harris

Work Completed:

This week we were once again very busy assembling the 80/20 material and machining the pieces for the arm and leg stabilizers. Christen finished the arm stabilizer bases by cutting them smaller in width and milling slots in them so that they could easily be removed from transfer board by just loosening the knobs. Christen also tapped the bottom of the 80/20 material so that a bolt could be screwed in making the arm stabilizer more stable. Earlier in the week I went into the machine shop with Bhavin, and I took pictures of him cutting the HDPE for the cross member of the leg stabilizer. The following is a digital image of Bhavin cutting the HDPE:

![Digital image of Bhavin cutting HDPE](image1)

After using the saw Bhavin then used the milling machine to get the HDPE to the exact dimensions needed, and the following is a digital image of my helping to clean up the piece after milling:

![Digital image of Andrew cleaning up HDPE](image2)
In lab on Friday we all worked together at assembling the arm and leg stabilizers. Also during lab Ashley spent time searching for a smaller pad to be used on the transfer board and she cut out a lot of the memory foam that will be attached to the arm and leg stabilizers later. Also during lab I spoke with a saleswoman from www.HandlesUnlimited.com about 2-inch high aluminum handles that I had found, and she was sending us a formal quote for six of them. All of the other handles that I found were smaller in height, so I am hoping these handles won’t be too expensive because a 2-inch high handle would be ideal. Also during lab I put the hand grip onto the handbar, and then Ashley and I began to assemble the handbar using the PVC cement. The following is a digital image of Ashley and I putting together the handbar:

The next digital image is one of half of the handbar cemented together; we are waiting for this half to set before we cement the other half:
Future Work:

By the end of this next week I will most definitely place an order for handles, that way we will have them for one we return from spring break. Also this following week we will measure and cut the PVC cross members for the underside of the transfer board, and the aluminum for along the side, both of which we will be using to reduce flexion in the board. On Friday Christen placed an order for aluminum and silicon bronze hardware, so once that comes in we will be able to replace the existing stainless steel hardware with it, and be sure that the new hardware is going to fit and work correctly. Christen has already tapped the holes for the PVC parts of the arm stabilizers, so this week Ashley and I will attach the memory foam to them.

Project Review:

As expected, once all of the 80/20 material came in the project has become much more appealing to the eyes and we have been able to be very productive in assembling the arm and leg stabilizers. I have pretty much solved the carrying problem with the handles that I have found and we have found a smaller foam pad, so I do not foresee any other major problems. Once the new hardware comes in we should be able to piece together everything nicely, and start to test to design very soon.

Hours Worked:

In lab – 7 hours  
Out of lab – 3 hours