Week #5  
February 21st, 2006  
Andrew Harris

Work Completed:

This week was a very successful week because we finally received all of our 80/20 material. In the previous week while waiting for the 80/20 material to come in we did a lot of preliminary work and planning, and all of this preliminary work paid off; for when we finally received the 80/20 we are able to get right to work building it. Before Friday’s lab period Christen finished cutting all of the bases for the arm stabilizers. On Thursday I went into the machine shop with Bhavin and helped and took pictures of him drilling and tapping holes into the bases for the leg stabilizer. The following are digital images of Bhavin and I at the machine shop:

Figure 1: Bhavin using the drill press on the leg stabilizer base
In lab on Friday we were all busy assembling the 80/20 material and attaching them to their respected arm and leg stabilizer bases. In order to assemble the 80/20 material we used the stainless steel bolts which Christen and Ashley had previously purchased from Mansfield Supply Co. The following are digital images of one of the leg stabilizer bases and one of the arm stabilizer bases:

Figure 2: Tapping the holes in the leg stabilizer base

Figure 3: Leg Stabilizer Base w/ attached 80/20 Material
Also this week I ordered Velcro that we will use to secure the foam pad to the transfer board. I ordered 6 sets of industrial strength Velcro, as well as waterproof Velcro adhesive. Also this week I spent a lot more time looking up various handles to use to carry the patient on the board. In talking with Christen about the forces involved, I’ve decided to attach handles directly to the top of the board. I emailed two companies about rectangular aluminum handles. I plan on ordering six rectangular handles, and fixing three on each side of the transfer board. Once I receive word from the companies I will make a decision on whether to order the handles from one of those companies or from MSC, the decision will be based upon price as well as the height of the handle.

Future Work:

One of the most important tasks for this next week is to order the hardware that we are going to use to permanently assemble the 80/20 material and attached them to the stabilizer bases with. This past week Ashley marked the PVC for the arm stabilizer supports, and this next week Christen is going to cut them in the machine shop. Also this week Bhavin is going to cut the HDPE for the leg stabilizer in the machine shop.

On Monday the grip sample came in, so also this next week I have to figure out a way to slip it on over the handbar and then Ashley and I will assemble the handbar.

Project Review:

This past week was a very good week because our project became a lot more appealing. Before lab everyone did small preliminary things and then on lab on Friday we spent the
whole time piecing parts together. Altering our design to utilize the 80/20 material was a good decision because in assembling them on Friday we found that the pieces slide very easily. Now that we have most of our material in the project is going together very smoothly and quickly, and I do not foresee any future hang-ups.

Hours Worked:

In Lab – 1 Hour Wednesday
  2 Hours Thursday
  4 Hours Friday
  1 Hour Monday
Out of Lab – 2 Hours
Total – 10 Hours