Accessible Weight Scale for Seated Users

Week #6

March 5, 2008

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Work Completed

This past week we cut the bottom panel again using the CNC program stored in the machine shop. We were also able to drill the holes in the top and bottom panel for all eight columns as well as the load cell foot.

We also welded the side, and back panels to the bottom panel. To prevent warping of the bottom panel we only tacked the panels. Also we left time in between welds for the panel to cool. We also cut the front panel into two panels and welded them onto the bottom plate. Since the battery access panel may need to be fairly large we decided not to CNC the front panel, but to cut it into two pieces leaving room in the middle for the battery access panel. Below is a picture of the bottom panel with the side panels welded and the columns screwed in.

As seen in the above picture we also cut the corners for the elevated toilet compartment from PVC pipe. Originally we had planed to use sheet metal, but the sheet metal would not have had an edge and could not easily be attached. The PVC corners have a thickness and radius similar to side panels. The PVC corners can be simply attached using glue.

Also completed this week was counter sinking all of the drill holes on the top and bottom panel so that the flat head screws will be flush with the surface of the panel. In the
picture below it is possible to see the screws flush to the surface of the top panel and how well the PVC corner fits the elevated toilet compartment.

Figure 2 – Elevated toilet compartment with sides and corners

**Future Work**

Future work for next week includes making the corners for the elevated toilet compartment from PVC pipe and drilling the holes for the load cell and handle mounting. After Spring break we will begin working on the foot support and possibly I will start helping Ian with the wiring and programming of the text to speech device.
We lost some time due to the inclement weather last week and the warping of the panel, but this week we managed to accomplish a lot in the construction of the elevated toilet compartment. We have managed to get much closer to the original timeline we had set for the completion of the project.
Hours Worked

This week approximately 16 hours was spent in the construction of the elevated toilet compartment and designing the foot support to be added next week.