Accessible Weight Scale for Seated Users

Week #5

February 27, 2008

Gregory Whitehosue
**Work Completed**

This past week we began making adjustments to the design of the elevated toilet compartment to reduce the height to a maximum of 5 inches. To do this we used the miller to trim down the columns that had been welded to the bottom panel. After the columns were cut down to 3 ¾ inches in height they were redrilled and rethreaded.

On Friday we had intended to weld the inner four columns to the bottom panel, but due to inclimate weather we were not able to weld these columns until Monday. After welding the columns the heat amount of heat used and the relative thinness of the bottom panel caused the panel to warp to an extreme degree.

![Image of the modified design](image)

This warping is unacceptable and could significantly reduce the accuracy of the load cells in the scale since the bottom panel may flex during a measurement and reduce the amount of flex applied to the load cells.

**Future Work**

Future work for next week includes attempting to reduce the warping in the bottom panel. If the bottom panel can be bent back into place and remain there then a great deal of work and time will be spared. However, if necessary we will cut another bottom panel from the stock material. Instead of welding the columns we will be forced to reduce the overall strength and the water resistance by screwing all of the columns to the bottom panel. This will require a significant amount of work as the inner hole will have to be cut again as well as the eight columns being cut and threaded on both sides. If necessary we will begin rebuilding the bottom panel.
Due to the warping of the bottom panel the project schedule has changed significantly. It will be necessary to cut a new panel and new columns. In order to reduce the amount of time lost we will have Patrick construct the new columns and we will move forward with the foot support.
Hours Worked

This week approximately 10 hours was spent in the construction of the elevated toilet compartment. This is significantly less than normal since class was cancelled last Friday due to inclement weather.