

Title: Disabled Patient Positioning System

Names:

Hani Bou Reslan - Communicator
Joel Rotroff - Weblord
Client: Professor Frank Fronczak

Snoop aka. "Tom Pearce" - BSAC
Ben Moga - Leader

Dates: 4/14 – 4/27

Problem Statement:

A platform device is desired that enables wheelchair users access to health care procedures. The device should have two-degrees of freedom (rotation of 360 degrees, and vertical translation from 3"-9" above the floor). This device should be motorized, transportable, easy to use, and safe.

Restatement of Team Goals:

We are keeping our eye on the national competition and are keeping the necessary steps to take in our mind. The steps include finishing the ramp, the housing assembly, working on alignment issues (to the best of our ability) and making the final prototype aesthetically pleasing.

Individual Goals:

Snoop = Construction + Design
Joel = Financing + Presentation
Hani = Stress Analysis + Paper
Ben = Construction

Summary of Accomplishments:

We discussed progress and decided that it is not necessary to finish the ramp for our final BME class presentations. However, we have constructed a housing assembly for the hydraulic pump and battery. The materials used were leftover from construction and it is a simple yet effective design. To help with alignment, guide bars were added for the back two tracks and all grooves now have e-clips in them. Shiny rustoleum was purchased for aesthetics and practicality of anti-rust. We are using magnetic clips to keep the wheels in place. Upon testing, one of the weld joints on the wheels broke so the current welding design on the wheels must be beefed up.

Statement of Team Goals:

We are focused on our final class poster presentation that takes place on Friday. Minimum construction is necessary and everything is in order to make a good showing. It is undecided as of now whether or not the ramp will be purchased and constructed for the competition; however, a design is finalized.

Project Schedule:

Date	Goals	Activities
12 February	Schoof's Competition	Do our best, get slammed, learn a lot
5 March	Mid-semester Presentation	
12 March	Report / Lab Books due	Oh Yeah!!!
30 April	Poster / Final Prototype due	No problema
5 May	Written report	Do really good

Difficulties:

ALIGNMENT ISSUES!!! In addition, the weld joints on the wheel assembly were unable to handle the load placed on them.

Activities:

Team = 1

Hani = 3

Snoop = 10

Joel = 3

Ben = 9

Totals:

Hani = 80.5

Snoop = 122.5

Joel = 76.5

Moga = 156