

Progress Report 9

Project Title: Medical Device Cart
Team Members: Joe Cabelka, Jennifer Wager, Emily Andrews, Tony Schuler
Client: Peg Rickard, Art Kealy Viasys
Advisor: Prof. Block
Date: 11/9/06-11/16/06

Problem Statement: Our goal is to develop an ergonomically correct medical device cart to house all components of an EEG machine that will facilitate rapid work flow and alleviate problems with current carts.

Restatement of Team Goals: Work on designing individual parts with the goal of starting to build our prototype on Fri. the 18th

Individual Goals:

Joe Cabelka:

1. Calculate optimal dimensions for cart based on gathered anthropometric data
2. Begin building

Jenny Wager:

1. Finalize design on cord caddy
2. Start building

Emily Andrews:

1. Calculate optimal dimensions for cart based on gathered anthropometric data
2. Begin building

Tony Schuler:

1. Finalize push-bar design
2. Begin building

Summary of Accomplishments:

1. Continued work on individual sections

Summary of Team Goals:

1. Continue work on individual designs
2. Start building

Project Schedule:

9/18/06	Meet with client
9/19/06 – 10/12/06	Research, brainstorm, and develop PDS
10/06/06 – 10/19/06	Prepare oral presentation and Preliminary Design Report
10/20/06	Mid-semester oral presentation and PDR due
10/15/06 – 10/22/06	Decide on final design
10/22/06 – 12/07/06	Work on design and build prototype
11/27/06 – 12/07/06	Prepare final oral presentation
12/08/06	Final oral presentation

11/30/06 – 12/12/06
12/15/06

Prepare final report, PDS, and design drawings
Final meeting with advisor

Difficulties:

Our main difficulty will be to create a fully functional prototype from our design ideas and drawings.

Activities:

Team:

No team meetings this week.

Joe Cabelka:

1. Sketched optimal dimensions for the cart (1.5 hr)

-Emily and I spent time going over the anthropometric data for optimal sit/stand heights, reach areas, and viewing heights. We calculated the dimensions the cart should be based on a 75% skew of the numbers toward the female averages because of the distribution of females to males in the field. We also discussed the current storage situation and re-designed the space on the cart to give more storage space.

Jenny Wager:

1. Shopping for parts and planning design (2 hr)
2. Update Notebook (1 hr)

- This week I bought the parts I will use for the cable caddy. It will consist of two 4 hook racks that will be mounted on a bar. I also bought a basket for extra storage that has hooks that can easily fit into holes we plan to make in the side of the cart. I looked for a keyboard tray that meant our requirements at Office Depot and Staples, but had no luck-we will have to order one from ErgoInDemand. I will assemble the cable caddy on 11/22 along with the two retractable cables we received.

Emily Andrews:

1. Sketched optimal dimensions for the cart (1.5 hr)

Tony Schuler:

1. Designing push-bar and mechanism (4 hr)
2. Update Notebook (30 min)
3. Update Website (30 min)

- This week I finalized calculations for designing the push-bar mechanism, made a couple more drawings for the push-bar design, and began some minimal fabrication for the new push-bar. By minimal fabrication I mean dismantling the current push-bar, taking some measurements, and marking it for cutting. As far as the calculations went, I based them all off of anthropometric data in order to make the design ergonomically sound. The only problem I had was that the calculations

led to a very large and bulky push-bar that would not work well with the cart, so I am in the process of discussing with my other team members to decide on a suitable range of adjustment that is both ergonomically sound and works well with the cart.

Total Team Hours (x 5 people) for Week:	0.00	hours
Total Individual Hours for Week:	11.00	hours
Cumulative Team Hours to Date:	106.60	hours