

Elevator Controller for Individual with MS

Client:

Dr. John Fleming

Team Members:

Ashley Matsick (Co-Leader)

Sara Karle (Co-Leader)

Michele Lorenz (Communicator)

Peter Strohm (BWIG)

Alison Boumeester (BSAC)

November 3-9, 2006

Problem Statement:

Our project involves the integration of controls into a device capable of covering the distance from a wheelchair to an elevator call button in the x, y and z directions, then exerting a horizontal force sufficient to successfully push the call buttons in both the standard elevator car and the corresponding hallway. The controls to be integrated must be operable by stimulus generated by movement no lower than the user's neck.

Last Week's Goals:

- Modify toggle switch such that it can be controlled by user
- Obtain parts to enable powering of Ultimate Switch
- Meet with Prof. Fronczak to polish mounting arm design
- Draft polished design of mounting arm and compile parts list
- Bring rough prototype of design to meet with Dave and troubleshoot potential problems

Summary of Accomplishments:

- Switch group met Friday during class time to work on creating user-friendly switches using a toggle switch.
- Mounting arm group (Michele, Peter, and Ashley) met with Professor Fronczak to discuss feasibility of various designs and determining which design aspects to pursue

This Week's Goals:

- Finalize mounting arm design and create cardboard prototype to check measurements with Dave's chair.
- Finalize switches and prepare for mounting and integrating with chair.

Project Difficulties:

Time constraints are beginning to be a difficulty, but the project is moving along well.

Activities:

<u>Date</u>	<u>Person/Group</u>	<u>Activity</u>	<u>Time Spent</u>
11.03.2006	Peter, Ashley, Michele	Meeting with Fronczak	1.50 hr
	Sara, Alison	Individual circuit research	2.00 hr
11.03.2006	Sara, Alison	Met during class time to work on circuitry	2.00 hr
11.08.2006	Ashley	Progress report	0.50 hr

Budget

<u>Date</u>	<u>Item</u>	<u>Cost</u>	<u>Comments</u>
09.02.2006	Ultimate Switch & Sip-Puff Switch	~\$140.00	Ordered from enablingdevices.com,

			paid for by Michele
11.01.2006	Double pole, double throw toggle switch	\$1.25	