

Computer Input Device for Individual with Muscular Dystrophy

Client: Richard Kunz & Mary Sesto

Team Members: Nathan Werbeckes, Team Leader
Vince Mi, Communicator
Kuya Takami, BSAC
Hyungjin Kim, BWIG

October 18th through October 25th

Problem Statement

The goal of the project is to minimize the setup time and improve the usability of the computer input device currently used by the client. Our focus will be replacing the trackball mouse control device with something more suited to his limited motor control. We will also provide wrist and forearm support which can be easily set-up and adjustable.

Accomplishments

- ▶ Tested Richard's ability to move game-controller joystick
- ▶ Completed mid-semester presentation
- ▶ Wrote mid-semester paper
- ▶ Decided on final design

Difficulties

- ▶ None

Goals

- ▶ Meet with Mary to discuss plans for second half of the semester
- ▶ Decide final design for forearm support
- ▶ Find adjustable platform better suited to height range we need
- ▶ Decide on mouse design for left hand (clicking hand)
- ▶ Conduct testing on ideal height of joystick

Assigned Tasks

Kuya: Design slides and present material on forearm support system design alternatives. Write section of mid-semester report on forearm support system design alternatives. Acquire example adjustable platform.

Vince: Design slides and present material on cursor control design alternatives. Write section of mid-semester paper on cursor control design alternatives. Set up and test controller as mouse control device with Richard.

Hyungjin: Design slides on problems with current device and PDS summary, present this material and write mid-semester report section on this same topic. Bring working example of game controller moving cursor to presentation. Photograph Richard and current device setup.

Nathan: Design slides and present material on background and future work section. Review PowerPoint presentation. Update Product Design Specifications sheet. Write mid-semester paper section on background and future work. Review mid-semester paper.

Project Schedule

Task	Oct. 28	Nov. 4	Nov. 11	Nov. 18	Nov. 25	Dec. 2	Dec. 9
Meet with Dr. Sesto, 2 nd half-semester plans							
Finalize forearm support design							
Research and buy adjustable platform							
Build arm holding mechanism							
Test different heights of adjustable platform							
Finalize and buy left hand clicking device							
Test different joystick heights and mechanisms							
Research and buy joystick							
Design Final Poster and prepare for presentation							
Write Final Paper							