

Positioning device for ophthalmic scanning laser systems

Team 23: “Ocular Imaging” Team

Client: Carol Rasmussen

Advisor: Professor Tom Yen

Team Members: Thomas Fleming (Leader)

Daniel Frost (BSAC)

Vidhya Raju (BWIG)

William Stanford (Communicator)

November 14 to November 20, 2008

Last Week’s Goals

- Decide on the correct hardware necessary for mounting the milling table.
 - Obtain this hardware and the necessary lengths of angle iron either from a local hardware store, the engineering shop in ECB, or McMaster-Carr
- Begin frame construction
 - While building the frame, make sure to add a position for u-bolt mounting towards the front of the frame so that we can rotate the camera about that point.
- Should construction of the frame go smoothly, we can begin to address any usability issues that come up.

Summary of Accomplishments

- We put in an order for the hardware (nuts, bolts, washers) we need for the frame. We hope to receive these by sometime early next week and to complete fabrication before the Thanksgiving holiday.
- We have moved the milling table to a working space in ECB.
- While we wait for the final components to arrive, we’ve continued to work on the final paper.
 - Along with writing their portion of the final paper, each team member has been working on condensing that section of the paper into something we can put on our poster for the December 5 poster presentation.

This Week's Goals

- Pending arrival of parts, attempt to complete construction before Thursday, November 26.
- Continue working on our final paper.
- Being work on final poster.
 - Each team member's individual section should be completed over the Thanksgiving Holiday.

Project Difficulties

- None

Activities

- 11/14/08 **Team** Transported the milling table to a working space in ECB for easier access to all team members as we complete fabrication. Put in an order for the last assorted hardware components we need for construction ~2.5 hours
- 11/15/08-11/20/08 **Team** Worked on drafts of the final paper sections and began work on final poster sections corresponding to final paper sections ~5 hours each

Project Schedule

Preliminary Project Schedule	
Dates	Activities
Sept. 19-25	Assess our monetary situation and choose what materials we can buy pre-assembled and what materials we'll have to fabricate for a platform
Sept. 26-Oct. 2	Decide upon a user interface style (e.g. joystick, buttons, screws, etc.), and whether that interface will be electronic or mechanical. Research prices for necessary components.
Oct. 3 – 10	Decide on team roles for device fabrication (platform vs. user interface), and finalize designs for each aspect of the device. Begin preparation for mid-semester presentation.
Oct. 10-17	Order necessary parts and begin fabrication. Finalize mid-semester presentation preparation.
Oct. 17-24	Receive necessary parts for platform (x-y and rotation). Determine whether it is reasonable to focus part of our efforts on simplifying the user interface at this point.

Oct. 24-31	Order any small parts that were not thought of upon first order. Simplify the user interface of the device. Begin work on final paper.
Nov. 1- 7	Receive necessary parts and begin fabrication.
Nov. 8-14	Continue fabrication and continue work on final paper.
Nov. 14-21	Obtain any parts necessary to complete fabrication. Continue work on prototype and final paper.
Nov. 21-28	Being work on final poster. Attempt to complete construction before Thursday, November 26. Continue working on our final paper.
Nov. 28-5	Complete poster and print by Tuesday, December 2. Complete device fabrication by Wednesday, December 3. Poster presentation will be Friday, December 5 on the main floor of ECB.

Expenses

- **None**