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)

October 23 to October 30, 2008

Last Week's Goals

- Finalize our design dimensions
- Come up with a budget for the parts we know we will need and a projection for possible future costs
- Place purchase order

Summary of Accomplishments

- We provided a description of what we are building, a list of all parts, and a budget to Gary Leatherberry who is our contact for purchasing what we need.
    - We are still awaiting reply on the status of the ordering process.
    - The parts we believe are necessary totaled around $350, which will leave a significant portion of our budget open for other odds and ends we may have overlooked in the initial design phase.
- Dan, Vidhya, and Will visited the eye clinic again on Wednesday to take a few more measurements of both the camera and the working area before we start building anything.
    - Cirrus HD OCT: height 20", length 26", width 16"
    - Table: width 21.5", length 38"
    - Table working area: length 26", width 25"

- Zeiss camera: height 19.5", length 15.5", width 21"

This Week's Goals

- While we wait for word on our purchasing situation, we intend to start work on our final paper.
- Should our parts arrive this week, we will refine our design before starting fabrication
  - Or, if we need to provide more information to Mr. Leatherberry before any items can be purchased, we will provide that information as soon as possible.

Project Difficulties

- **None**

Activities

- 10/24/08 **Team** Met to discuss the components we believe are necessary for the device. We put together a budget and sent it to Gary Leatherberry for approval and purchase. ~4 hours
- 10/29/08 **Dan, Vidhya, and Will** Met at the eye clinic to take their own measurements of the camera and get a sense of how the weight will be distributed across our table. They also measured the table and working area to give us a better sense of how much room we'll have to rotate the device. ~2 hours

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-	Receive necessary parts for platform (x-y and rotation). Determine whether it is

24	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- 8	Receive necessary parts and begin fabrication.
Nov. 8-17	Continue fabrication and continue work on final paper.

Expenses

- **None**