Positioning device for ophthalmic scanning laser systems

Team: "Ocular Imaging" Team

Client: Carol Rasmussen

Advisor: Professor Tom Yen

Team Members: Daniel Frost (Team Leader, BWIG)

William Stanford (Communicator, BSAC)

March 13 to March 26

Last Week's Goals

- Hook up motors and motor controllers.
- Do any troubleshooting with motor function.

Summary of Accomplishments

- Hooked up motors and motor controllers, got each to function individually.
- Brainstormed coupling ideas for connection between motor and cross slide table.
- Contacted Trossen Robotics about motor controller function.

This Week's Goals

- Get motors and motor controllers functioning together.
- Connect motors to table.
- Look into joystick purchase.

Project Difficulties

- Difficulty getting motors and motor controllers functioning together.

Activities

- 3/24 – Worked with motors/controllers.
- 3/24 – Contacted Trossen Robotics

Project Schedule

Preliminary Project Schedule	
Dates	Activities
Jan. 23-30	Form team roles and contact client. Individual research on mechanizing design.
Jan. 31 – Feb. 5	Client meeting. Contacted McMaster-Carr about motor/joystick and planned experiment.
Feb. 6 – Feb. 12	Got information on joystick and came up with initial plan for rotating mechanism.
Feb. 13-Feb. 19	Found more suitable motors and joystick.
Feb. 20-Feb. 26	Found motors powerful enough to work and ordered them. Also ordered motor controllers and mounting brackets.
Feb. 27-Mar. 5	Decided to wait on joystick until motors are working. Midsemester preparation.
Mar. 6 – Mar. 12	Midsemester presentation and paper.
Mar. 13 – Mar. 26	Motor assembly and troubleshooting.

Expenses

- **Motors Trossen Robotics** MP-36016-385 $37.50 x3 - $112.50
- **Motor Mounts Trossen Robotics** M-800-PB-S3751-BB $10.00 x3 - $30.00
- **Motor Controllers Trossen Robotics** C-100-DC-BB-0518 $46.50 x3 - $139.50

Total - $282.00