

Title: Finger Switch for electrosurgery

Team Members:

Crystal Marshek(Leader)

Nick Kortan

Andrea Rozmenoski

Ryan Sydnor

Valentine Thao(BSAC)

Mike Wells(Communications)

Luke Harris(BWIG)

Date: October 18th – October 31st

Problem Statement: To modify electro-cauterizing tweezers used during neurosurgery from an on/off switch currently used in conjunction with a foot pedal to an on/off switch located on the shaft of the tweezers.

Restatement of Team Goals: We have now combined as one large design team. Within the next week, we hope to meet with our client, Dr. Badie, to talk about our design ideas and obtain a prototype of one of the forceps currently used at the hospital. This prototype will help us determine which design will satisfy the client's needs. After this meeting, we hope to come to an agreement on what design we want to pursue, so we can begin building it.

Summary of Accomplishments: Presentations and preliminary design reports were given/handed in - 10/19. Received feedback on our presentations (from our advisor Wally Block – 10/26. Met at hospital to speak with client, but only succeeded in talking over the phone about (1) client's thoughts on our design ideas and (2) possibility of obtaining forceps.

Statement of Team Goals: Obtain forceps as well as feedback from client. Based on information gained from that, decide on final design. Research design processes used by biomedical engineering companies in the development of surgical tools. Build a prototype and perform preliminary tests with the prototype. If time permits, make further improvements to design prior to the final presentation. Finally, a more detailed schedule should be constructed this Friday.

Project Schedule: 10/29-11/2: Obtain forceps and feedback from the client, combine design ideas.

11/2-11/9: Finalize design idea and research design processes.

For the rest of the semester, we are going to try to accomplish 3 things:

1. Develop a button design
2. Develop a trial design that could be used on animals, or....
3. Contact surgical instrument companies to learn about the design process of other surgical equipment

Difficulties: Problems with setting up the initial appointment with Dr. Badie have set the project behind. We will also most likely need help with some of the electrical work required for this project. A final decision on the design cannot be made without use of a real pair of forceps. The client's unavailability is the most serious factor limiting the team's progress.

Activities:

Crystal Marshek - 4 hours: collecting and preparing progress report, performing search on TONG prize/Schoofs/Burrill, meeting with group Friday

Nick Kortan - 1 hour: prototype considerations.

Andrea Rozmenoski - 2 hours: went to the hospital to meet with Badie, however, he was not there.

Ryan Sydnor - 2.5 hours: coming up with questions for Dr. Badie, going to the hospital to meet him, writing this progress report

Valentine Thao - 2.5 hour: lab notebook, email, discussion with team on Friday.

Mike Wells - No report received.

Luke Harris – (5.5 hours): writing progress report, looking through email, responding to email, learning

how to use Dreamweaver and making the website for our project.