Grasping Instrument for Laparoscopic Bowel Surgery
Progress Report 7
10/27/06 – 11/2/06

Client: Charles P. Heise, MD
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Team Members:  Richard Bamberg (BME 200)-BWIG
Ann Sagstetter (BME 200)-BSAC
Becky Jones (BME 300)-Communications
Lynn Murray (BME 300)-Team Leader

Problem Statement: During laparoscopic surgery, small clips are used to hold tissue out of the way of the surgical procedure. Current clips provide greater pressure on the area of tissue closest to the joint sometimes causing the tissue to be expelled out of the grasping instrument and possibly traumatizing the tissue. The goal of this project is to equalize the pressure across the length of the clip. Due to the small entrance incision, the prospective device must have a diameter less than 5 mm. Because the grasping instrument must be made for internal use, precautions must be taken to minimize moving parts and safety hazards.

Summary of Team Accomplishments
• Called Stryker Medical (manufacturer of the current device) to possibly obtain design drawings
• Used online patent information to find mechanical drawings for the current device
• Met with Advisor on Wednesday 11/1 to discuss progress, snags, and possible prototype ideas

Current Week’s Goals
• Material research to begin prototype: what would we need to use to create an actual to scale model? Is that feasible within our time limitations? If not, how can we create a working with different material?
• Use current design to draw mechanical plans for integration of designed device with current handle
• Possible client meeting

Projected Schedule:
Week 1 Form team, select project, contact client.
Week 2 Meet with client, Develop understanding of project.
Week 3 Brainstorm; Produce Project Design Statement (PDS).
Week 4 Work on mid-semester presentation.
Week 5 Mid-semester Oral Presentation.
Week 6 Meet with Client; Agree on final design.
Week 7 Work on design.
Week 8 Work on design; order materials and parts.
Week 9 Work on prototype.
Week 10 Work on prototype.
Week 11 Work on prototype.
Week 12 Test prototype.
Week 13 Work on presentation.
Week 14 Final Project Presentation.

Activities:

Richard: Class Meeting 10/27
Website update ½ hr
PDS update 1 hr
Team meeting 11/1 1 hr
Total: 2 ½ hrs

Ann: Class Meeting 10/27
Researching CAD drawings ½ hr
Writing for paper 1 hr
Team meeting 11/1 1 hr
Total: 2 ½ hrs

Becky: Class Meeting 10/27
Material research ½ hr
Team meeting 11/1 1 hr
Total: 1 ½ hrs

Lynn: Class Meeting 10/27
Patent research 1 hr
Corporate contacts ½ hr
Progress Report ½ hr
Total: 2 hrs

Team Total Hours this week: 8 ½ hrs
Team Total Hours to date: 69 ¾ hrs

Expenses
• $16.36 at Home Depot for mechanical research