Grasping Instrument for Laparoscopic Bowel Surgery
Progress Report 6
10/13/06 – 10/19/06

Client: Charles P. Heise, MD
Department of Surgery
email: heise@surgery.wisc.edu

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
• Finalize three alternative designs for presentation on 10/20
• Team meeting to determine schedule and sections for mid-semester presentation
• Meet to complete design matrix and choose final design
• Created, revised, and practiced presentation
• Revise schedule grid to approximate deadlines throughout the semester

Current Week’s Goals
• Eliminate and combine design ideas into final three alternative designs
• Split up mid-semester presentation
• Meet to practice presentation
• Split paper sections based on areas of background/literature and presentation sections

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 10/13
Website update ½ hr
PowerPoint presentation 2 hrs
Team meeting 10/18 1 hr
Total: 3 ½ hrs

Ann: Class Meeting 10/13
Pre-sketches/CAD drawings 2 hrs
Design research 1 hr
Team meeting 10/18 1 hr
Total: 4 hrs

Becky: Class Meeting 10/13
Client Meeting 1 hr
Background for Design matrix ½ hr
Writing for presentation ½ hr
Team meeting 10/18 1 hr
Total: 3 hrs

Lynn: Team meeting 10/18 1 hr
Writing for presentation ½ hr
Progress Report ½ hr
Total: 2 hrs

Team Total Hours this week: 12 ½ hrs
Team Total Hours to date: 44 ¼ hrs

Expenses
• $16.36 at Home Depot for mechanical research