Grasping Instrument for Laparoscopic Bowel Surgery
Progress Report 10
11/10/06 – 11/16/06

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
• Met with Advisor on Tuesday 11/14 to discuss mechanical design possibilities
  suggested by team members during last team meeting.
• Individual brainstorming after advisor’s feedback to incorporate the
  mechanical requirements into our proposed design.

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?
• 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 11/10
Website update ½ hr
Total: ½ hr

**Ann**: Class Meeting 11/10
Mechanical Design Brainstorm 1 ½ hrs
Total: 1 ½ hrs

**Becky**: Class Meeting 11/10
Mechanical Design Brainstorm 1 ½ hrs
Total: 1 ½ hrs

**Lynn**: Class Meeting 11/10
Meeting with Professor Tyler ¾ hr
Design Brainstorm ½ hr
Progress Report ½ hr
Total: 1 ¾ hrs

**Team Total Hours this week**: 5 ¼ hrs
**Team Total Hours to date**: 75 hrs

**Expenses**
- $16.36 at Home Depot for mechanical research