Leg Ergometer for Human Exercise Blood Flow Studies
Progress Report 11, April 19, 2007

Team Members:
Amy Weaver (Team Leader)  aweaver@wisc.edu
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Lacey Halfen (BSAC)  halfen@wisc.edu
Hyungjin Kim (BWIG)  kim22@wisc.edu

Client:
William G. Schrage, Ph.D.
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Advisor:
Paul Thompson
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Date: April 13, 2007 to April 19, 2007

Problem Statement:
The goal is to design a leg ergometer to be used by William Schrage in his lab. The test subject will use the ergometer to maintain a constant kicking motion while the femoral artery is imaged using an ultrasound. The information is used to determine blood flow to the leg during exercise.

Project Schedule:
1/26/07 – Choose team and project, meet with client
2/2/07 – Background research, preliminary design ideas, begin work on PDS
2/9/07 – Continue background research, complete and post PDS
2/16/07 – Brainstorm
2/23/07 – Develop design alternatives
3/2/07 – Decide on design alternatives, work on mid-semester presentation and report
3/9/07 – Give mid-semester presentation, finalize and turn in mid-semester report
3/16/07 – Decide on final design
3/23/07 – 4/13/07 – Work on final design
4/20/07 – Perform tests on final design, determine and make adjustments
4/27/07 – Finalize design and final presentation, begin work on final paper
5/4/07 – Give final poster presentation, finalize and turn in paper
5/11/07 – Final meeting with advisor

Last Week’s Goals:
- Purchase components to build frame
- Buy seat
- Buy alternative friction device (bike brakes)
- Begin assembling device
• Meet with client

**Summary of Team Accomplishments:**
• All met with client
• Amy, Cali, and Hyungjin went shopping for components
• Everyone assembled the frame

**Summary of Individual Accomplishments:**
• Amy wrote the progress report
• Hyungjin updated the website
• Amy purchased the bike.
• Cali contacted stores regarding items in stock

**Upcoming Week’s Team Goals:**
• Determine how to attach bike and seat
• Determine boot solution
• Purchase the remaining components

**Difficulties:**
We did not encounter any major difficulties this week.

**Activities:**
Amy
  - team meeting 1.0 hr
  - client meeting 1.0 hr
  - shopping 5.5 hr
  - assembly 4.0 hr
  - progress report 0.5 hr

Lacey
  - team meeting 1.0 hr
  - client meeting 1.0 hr
  - assembly 3.0 hr

Calista
  - team meeting 1.0 hr
  - client meeting 1.0 hr
  - shopping 5.5 hr
  - assembly 3.5 hr

Hyungjin
  - team meeting 1.0 hr
  - client meeting 1.0 hr
  - shopping 4.5 hr
  - assembly 4.0 hr

**Team Total Hours for this week: 38.5**
**Cumulative Team Hours to date: 189.5**