Project Title: Animal Ventilator

Team Members:
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Advisor: Willis J. Tompkins

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Problem Statement:
Redesign a MRI-compatible small animal ventilator to deliver a variable volume of hyperpolarized helium and oxygen gas at user-specified frequencies. The device should be compatible with the current system in place.

Restatement of team goals:
1. Calibrate first generation prototype
2. Finalize design plans for second generation prototype
3. Order parts for second generation prototype
4. Begin construction of second generation prototype
5. Calibration and testing of second prototype
   5.a. Volume output
   5.b. Timing
   5.c. Gas mixture

Summary of Team Accomplishments:
1. Submitted parts list order
2. Began printing part drawings to follow during device assembly
Summary of Individual Accomplishment:
1. Chris wrote the progress report
2. Ashley submitted McMaster-Carr parts order
3. Matt finished SolidWorks part drawings

Statement of Team Goals:
1. Test changes to LabView code on site
2. Begin prototype construction
3. Independently begin writing updates for respective sections of the paper/poster

Project Schedule:
9/15-9/29 Finish first device calibration
9/29-10/13 Research and design development of second gen. device
10/13-10/20 Finalization of new design
10/20-11/17 Manufacture of new design elements and device assembly
11/17-11/24 Software modifications
11/24-12/8 Testing and calibration of second device
12/8 Second prototype delivery
12/8 Semester Write-up
12/8 Final Presentation

Difficulties:
None. However, time will be an issue in the upcoming weeks as construction and presentation needs to be completed by December 8th to stay on schedule.

Activities:
(Since device delivery)
Chris: 2.5hrs – team meeting, progress report
Ashley: 3.0 hrs – team meeting, LabVIEW work
Matt: 3.0 hrs – team meeting, SolidWorks drawing
Micah: 2.0 hrs - team meeting

Team Total Hours for this week: 10.5 hrs
Cumulative Team Hours for Fall 2006: 85.5 hrs
Cumulative Team Hours to date: 232 hrs