**Project Title:** Redesigning intramedullary rod surgical instruments used for canine long bone fracture repair

**Team Members:**
Erik Yusko – Leader
Danielle Ebben – Communications
Tony Wampole – BSAC
Anna Moeller – BSAC
Jon Sass – BWIG

**Client:**
Tass Dueland, DVM  
Professor Ray Vanderby, Jr.  
UW Veterinary School  
UW Biomedical Engineering and others  
email: duelandt@svm.vetmed.wisc.edu  
email: vanderby@orthorehab.wisc.edu

**Date:** 10/27/05 – 11/1/05

**Problem Statement:** Improve the design of an intramedullary rod to fix canine long bone fractures. Specifically a device enabling surgeons to consistently drill to the screw holes in the nails without missing.

**Individual Goals:**
Erik – Drawings and specifications, materials
Danielle – Force measurements for current product
Tony – Drawings and specifications
Anna – Research stress risers, and help Danielle with force measurements, BSAC
Jon – Drawing and specifications

**Summary of Accomplishments:** The team has completed fore measurements with a complete nail set. Tests were down to determine what magnitude of forces is required to deviate nail holes from the jig pattern. A new design, which seems to be the most effective and most promising method, has been brought to our attention which we are beginning to finalize.

**Statement of Team Goals:** Finalize design in that specifications and dimensions are complete to the point that constructing a testable prototype is possible. Order materials ASAP.

**Rough Project Schedule:**
9/9/05: Met with Client
9/16/05: Developed a fluid PDS document and began brainstorming
9/16/05-9/30/05: Evaluated brainstormed ideas. Beginning mid-semester presentation and report.
10/14/05: Presented Midsemester presentations
10/14/05-11/18/05: Build and finalize a prototype or design plans.
11/18/05-12/2/05: Test prototype, produce final poster presentation & report.
12/2/05: Final Poster Presentations
12/7/05: Final report due.

**Difficulties:** None at the moment.

**Activities week to date:**

Erik – Magnets and forces, discussion with ME grad 6 hours
Danielle – notebook, nail set, magnets, info binder 5.5 hours
Tony – quantifying magnets with forces 6 hours
Anna – research of magnetic forces, BSAC 4 hours
Jon – magnets and forces, BWIG 3.5 hours

**Running Total:**

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<tr>
<th>Name</th>
<th>Hours:</th>
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<tbody>
<tr>
<td>Erik</td>
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