

Measurement of tibial translation in dogs with anterior cruciate ligament ruptures

Week 13&14– November 22nd to December 5th

Team Members: Graham Bousley – Team Leader
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Summary of Accomplishments:

- 1 Finished all facets of the device including:
 - o Hall Effect sensor setup with magnets
 - o Load cell setup
 - o Load cell amplifier and circuit
 - o Hall effect circuit
 - o Rod assembly system
 - o Needle assembly
 - o Acrylic case
- 2 Calibrated system to 4 magnets, tested in lab and on cadavers three times and got repeatable data
- 3 Utilized a system that recorded continuous data during testing

Team Goals:

- 1 Present Poster
- 2 Finish Final Report
- 3 Update Website

Problem Statement:

- 1 Arthritis in canines often leads to joint degeneration and rupture of the Anterior Cruciate Ligament (ACL). Diagnosis of this condition is often difficult because the current methods used are non-quantitative.

Midsemester Report															
Device manufacturing															
Testing															
Re-designing															
Re-testing															
Presentation															
Progress report															
Website															

Expenses:

Button-Head screws, 9V batteries

Total: \$11.23