Lab Safety Policies

- Don’t stand on lab chairs
- Don’t sit or stand on lab tables
- No dangling jewelry or loose clothes.
- NO open toed shoes.
- Be careful with sharp corners.
- Recall location of phone and first-aid kit.
- Report ALL injuries

"... and should be asked to leave."
### Overview of Labs

<table>
<thead>
<tr>
<th>Lab</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Lab 1</td>
<td>Introduction to Roller Coaster Design</td>
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<tr>
<td>Lab 2</td>
<td>Roller Coaster Energy Losses</td>
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<td>Lab 3</td>
<td>Roller Coaster Circuits with Circuit Prototyping</td>
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<td>Lab 4</td>
<td>Roller Coaster Speed Sensor Calibration</td>
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<td>Lab 5</td>
<td>RC Building Session #1</td>
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<td>Lab 6</td>
<td>RC Building Session #2</td>
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<td>Lab 7</td>
<td>RC Building Session #3</td>
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<td>Lab 8</td>
<td>RC Final Construction - Preliminary Testing of Design</td>
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<td>Lab 9</td>
<td>RC Final Testing of Design</td>
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<tr>
<td>Lab 10</td>
<td>RC Oral Presentations</td>
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</tbody>
</table>
Engineering 1182.01
Roller Coaster Building Session #3
Assignments Due TODAY

• Project Notebook
  • Place notebooks on the table. TAs will come around to each table and check them.

• Oral Presentation Outline
The Final Written Report

• The final written report is to be turned in the last lab

• For more details on how to complete it, tips for writing, requirements for sections, and instructions on references, table of contents, and figures please see your project packet

• The final report is mostly done! The majority of the report consists of work you’ve already put into your lab memos.
Final Report: Contents Overview

1. Cover Page
2. Table of Contents
3. List of Figures
4. Executive Summary
   a) Problem Statement
   b) Discuss the design process
   c) What was the final design
   d) How well did the final design work
   e) What should be done to improve the performance next time
Final Report: Contents Overview

5. Introduction
6. Requirements, Constraints, & Information Needs
7. Paper Design Concepts and Analysis
8. Final Design
9. Circuit Analysis
10. Performance Analysis
11. Summary of Report & Conclusions
Assignments

- Draft of Final Project Report
- Draft of Presentation Slides
Draft of Final Report

- The Draft of the Final Report should include a detailed and complete section on the following:
  
  - Final Design
    - Introduction to the section
    - Description of the final design
    - Accompanied CAD/other drawing of final design (as needed)
    - Complete set of working drawings in CAD/other (as needed)
    - Final Cost Analysis
NEXT WEEK: Preliminary Testing