

## Guidelines for the Engineering Design Project Report

Engineers spend the majority of their professional careers communicating with others by writing reports and making presentations. This is your first opportunity to create an engineering report. Your engineering report should be so good that you would be proud to show it to the interviewer of your first engineering job.

Your report should contain the following sections:

1. **Table of contents** – the items in this list.
2. **Statement of design** – what are the requirements of what you are building? What problem are you solving?
3. **Design description** – how does your design work? Your description can refer to your engineering drawings.
4. **Engineering drawings** – include two dimensional and three dimensional drawings of your design. Use Pro/Engineer to render your drawings.
5. **Bill of materials** – this is a list of all the individual components in your design. Include the costs of all the individual components and the total unit cost of your design. Use a spreadsheet to organize your bill of materials. Can you estimate the manufacturing costs your design?
6. **Analysis and design** – how did you arrive to your design? What were your alternative designs? What problems did you encounter and how did you solve them?

Did you calculate any values for your design? If so, show the formulas and the calculations on a spreadsheet.

Did you collect any empirical data to help you arrive to your design? If so,

present the data as charts and graphs on a spreadsheet. How close were your calculated values to the actual values? Can you explain the differences?

**7. Conclusions** – what are the results? What did you accomplish? What lessons did you learn? What did you do right? What would you do differently if you had to do it again?

Your report is an important part of the grade for your design project. It should be neatly typed; spelling and correct grammar does matter. You can use Microsoft Word and Excel that are available in the Computer labs. Microsoft Word has an equation editor you can use for formulas you used in any calculations.

You can include photographs that you have taken with a digital camera.

The report should bound in some way; staples in the upper left hand corner are acceptable.

Don't forget the names of the team members and the date of the presentation.

You are to hand in two copies of your report on the day of your presentation. In addition, the computer files of your report are to be provided.