EE-1100 Final Project Requirements

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1 Project Overview

1. Design and build an original, functioning circuit that solves a problem or fulfills a need that aligns with your values!
2. You may work in groups of 2-3 or alone, speak with the TAs about your project idea / group and they will advise you on how to proceed.
3. The final prototype must contain AT LEAST 3 inputs and 3 outputs. This can be overridden by sufficient project complexity, speak with the TAs if interested.
4. Be creative! This is your stage to perform and show off everything you've learned!
5. Document, document, document! Make sure you describe your design process as you are figuring out / building your project. People will be very interested to hear about the stages of your project!
6. Keep track of your time, make a gannt chart! Some kind of scheduling will go a long way towards finishing your report on time.
7. PLEASE TELL TAs IF YOU HAVE PROBLEMS, ESPECIALLY EARLY ON, there is alot they can do early in your process, but significantly less the day before it is due!

2 Report

1. Reference the rubric, this is how you will be graded.
2. Include the following sections in your report:
    - Title Page: Include your project name, group member names (or just your name if working solo), as well as the project working span of dates (ie: 4/7/25 -> 5/5/25) and the date of submission.
    - Abstract: Summarize your results in a BRIEF paragraph. If using overleaf/LaTeX, use the built-in Abstract section.

- Table of Contents: ToC of the sections in your report (with corresponding page numbers). LaTeX has a REALLY good built in method for this.
- Introduction: Describe your project at a high level and provide some background information.
- System Diagram: Digitally drawn high-level diagram of your system. Show your inputs and outputs and how they correspond to the parts of your project. Using a block diagram is a good idea here.
- Plan: How did you schedule your time? What was your budget? What parts did you use and why?
- Process: What was your design/prototyping process? How well was your plan executed?
- Results: Show off your prototype. Provide data showing that it does what you want it to do. Talk about specifications relevant to the prototype's purpose.
- Impact: Discuss ALL 3P's!!!
- Conclusion: Concluding remarks on your experience throughout this project, as well as the EE-1100 course/lab. What worked for you? What you would change? What (in your own words) did this course/project teach you?
- Appendix: WELL COMMENTED CODE, and any figures you want to reference that don't make sense to put into the text of the report.
- References: At least 2 references to sources you used for this project. Use IEEE citation formatting.

3. Make sure to be consistent with indents, spacing, and fonts.
4. Number your pages, figures, tables, and equations (LaTeX is REALLY good at this :)).

3 Demonstration

There will be a number of judges from the UVM ECE Department, as well as the undergraduate class for which you will demonstrate your work to. This will occur during your final exam slot.

1. BRING A HARD COPY OF YOUR REPORT!!!!!!!!!!!!!!!
2. Dress nice, this is a professional showing of your hard work!
3. Show what your work does, it is HIGHLY encouraged to record a video of the prototype's operation as a backup.
4. Explain what problem your project solves / what need it fulfills.
5. Be prepared to answer questions the judges have. This is your chance to flex how much you have learned this semester!