

# Smart Whiteboard Eraser

ECE 186A - Senior Design I  
Fall 2018 - Dr. Stillmaker

**Date:** Thursday, September 29, 2018

**Project Manager:** Heather Libeck \_\_\_\_\_

**Team Member:** Chris Quesada \_\_\_\_\_

**Team Member:** Juan Colin \_\_\_\_\_

**Technical Advisor:** Dr. Kulhandjian \_\_\_\_\_

**Y**OU and your team should generate a single PDF document using L<sup>A</sup>T<sub>E</sub>X and the `\documentclass{IEEEtran}`. You are welcome to use the posted `ProjectDescriptionInstructions.tex` file posted on Blackboard, and just modify that to add your own information, and meet the requirements. I don't want to give a definite page limit, but I am expecting this document to be somewhere around three to five pages, though making sure to adequately cover all the requested material is what matters. In other words, I expect that at this point you have rather thoroughly thought through your project, and should have a lot to say about it.

It should contain the following parts:

#### TITLE PAGE

Your title page should include your project's name, ECE 186A, the date, and all of your ECE group member's names. It should also include the signature of your technical faculty advisor, as well as all of the members of your ECE group. To accomplish this you should use the `\maketitle` command, and likely will need to add some `\vspace{}` and then the signature lines, which you can see in the example I gave in Lecture 5. After this, you will need to add more space to make sure it is only the above mentioned information that was included. Unfortunately we can't just use the `\newpage` command, because the IEEEtran Journal format doesn't have the ability to make a title page, so you are welcome to figure out another way, or use my somewhat inelegant workaround solution.

#### I. INTRODUCTION

Clearly state your project, and what is the main deliverable. List your team members, and what their specific responsibilities will be in completing the project. This section should have any details about your team member's strengths, but just very simply what their responsibilities are in about a sentence (i.e. Student One is responsible for being the project manager, micro-controller communications programming, and design of PCB to interface with components).

#### II. BACKGROUND

Brief statement of goals of the project and the objectives that will need to be accomplished to attain the goal. Describe the background, strengths and weaknesses, of each team member's knowledge, as it pertains to the project. Explain in detail what background information is going to need to be researched and learned to complete your project. You should list specific courses that you have taken during your time at Fresno State that you will need to use information from to complete your project. Note, for a successful Senior Design Topic, you must be using a breadth of knowledge.

#### III. PROJECT DESCRIPTION

Describe your project in detail in this section. List out all of the major components, as well as all of the minor components underneath that. Explain all the major difficulties with the

project. Briefly describe the budget for your project, including major items you think will need to be purchased, if any. It doesn't have to be very exact at this point, but you should have a ballpark figure for the major parts. Explain equipment you think you will need to use, be it purchased, already owned, or borrowed from the ECE department. List who your technical faculty advisor is, what their area of expertise is, and how you will use that expertise in your project.

#### REFERENCES

You will use B<sub>I</sub>B<sub>T</sub>E<sub>X</sub> to generate references for all of the material you cited, using `\cite{}`, to write this report. Use the `\bibliographystyle{IEEEtran}` to generate your references.