## **Purdue ECE Senior Design Semester Report**

## **(Team Section)**

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| --- | --- |
| **Course Number and Title** | ECE 47700 *Digital Systems Senior Design Project* |
| **Semester / Year** | Fall 2021 |
| **Advisors** | Mithuna Thottethodi and Phil Walter |
| **Team Number** |  |
| **Project Title** |  |

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| Senior Design Students – Team Composition | | | |
| **Name** | **Major** | **Area(s) of Expertise Utilized in Project** | **Expected Graduation Date** |
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**Project Description:** Provide a brief (2-3 page) technical description of the design project, as outlined below:

1. Provide a general description of the product to be delivered by this design project.

## Place your description here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

1. What is the purpose of this product? For whom is it intended?

## Place your description here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

1. Describe how the engineering design process used to create your product was utilized in this project. Include how you were able to develop and conduct appropriate experiments, analyze and interpret data, and use engineering judgment to draw conclusions related to the development of your product.

## Place your description here……do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

1. Describe the design constraints, and resulting specifications, incorporated into your product (list a minimum of 3).

## Place your description here……do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

1. Describe how each of the following factors influenced your design specifications and constraints.

## **Public Health, Safety, and Welfare:** Place your summary here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

## **Global Factors:** Place your summary here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

## **Cultural Factors:** Place your summary here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

## **Social Factors:** Place your summary here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

## **Environmental Factors:** Place your summary here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

## **Economic Factors:** Place your summary here……do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

1. Describe the appropriate engineering standards incorporated into the creation of your product.  
     
   Engineering standards can be defined as a set of technical definitions and guidelines that specify characteristics and technical details that must be met by products, systems and/or processes. Standards help to ensure that products meet minimum performance and safety requirements, that the product/system/process is consistent and repeatable, and are compatible with other standard-compliant products, systems, and processes. Some sources for engineering standards: IEEE (standards.ieee.org), ASTM International (www.astm.org), FCC, and ANSI (ansi.org).
2. Describe the final status of your product.

Place your description here − should describe what was built and the extent to which functionality was achieved (do not list “reports” and “posters” as deliverables) …do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

1. Describe the makeup of your project team and how you were organized to establish goals, plan tasks, and meet the objectives of this project.

## Place your description here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

1. Did your project require the production of any written documentation other than this document (i.e., manuals, educational materials, etc.)? If so, describe the types, composition, and nature of the audiences for whom these materials were intended.

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1. Describe the types, composition, and nature of the audiences in attendance for the final oral design review. Discuss how you prepared for this audience.

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## **Purdue ECE Senior Design Semester Report**

## **(Individual Reflections Section)**

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| **Course Number and Title** | ECE 47700 *Digital Systems Senior Design Project* |
| **Semester / Year** | Fall 2021 |
| **Advisors** | Mithuna Thottethodi and Phil Walter |
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| --- | --- | --- | --- |
| Senior Design Student Completing This Section | | | |
| **Name** | **Major** | **Area(s) of Expertise Utilized in Project** | **Expected Graduation Date** |
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**Individual Reflection:** Provide a brief (1-2 page) individual reflection of the design project, as outlined below:

1. Describe your personal contributions to the project.

## Place your description here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

1. Describe how your contributions to this project built on the knowledge and skills you acquired in earlier course work.

## Place your description here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

1. Describe how you acquired and applied new knowledge as needed to contribute to this project. What learning strategies did you employ to do so?

## Place your description here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

1. Discuss your ethical and professional responsibilities as they relate to this engineering design experience.

## Place your description here…do not change the indentation, format, font, or spacing (but do change font color to black)…this paragraph should be single-spaced and aligned exactly as shown.

1. Consider what the impact of the product of this engineering design experience could have in economic, environmental, societal, and global contexts. Discuss how you would make (or did make) an informed judgement as to your product’s impact in each of these four contexts?

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