**Preliminary Design Review Written Summary**

<Descriptive Project Title>

Sponsored By

<Sponsor Name>

Version <S19>

<Month, Date Year>

Prepared by

<Name (Discipline)>

<Name (Discipline)>

Project Engineer <Name>

Chief Engineer <Name>

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# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Name | Reason for Changes |
| 1.0 |  |  | Initial document. |
|  |  |  |  |
|  |  |  |  |

# Glossary

To Do: Define all the abbreviations, acronyms, and terms required to properly interpret your final report. Examples of abbreviations that have two or more commonly used meaning are as follows:

* ATM – Asynchronous Transfer Mode or Automated Teller Machine
* UPS – Uninterrupted Power Supply or United Parcel Services

For any unfamiliar abbreviation, write the full name followed by the abbreviation in parentheses at the first time it is mentioned in the report.

# Introduction

To Do: Review and update material from the Statement of Work (SoW). This introduction should provide enough information about the project area and why it's an important area, so that the reader can understand the customer needs that we present in the next section.

# Project Objectives and Scope

To Do: This section contains both long term objectives and the planned semester objectives. Review and update materials from the SoW. Provide a bullet list of the objectives for this semester. Focus on final outcomes, not intermediate steps. Do not include academic assignments (status updates, final poster, etc…). The objectives should be understandable by themselves. Clarify what you plan to do (in scope), and what you plan to not do (out of scope) as needed.

# Customer Needs and Project Requirements

To Do: The term “customer” is used in a general sense. In this section, identify the different customer types whose needs are addressed, even indirectly, by this project.

Examples of different types of customers:

* Client who sponsors this project
* Customers who make purchasing decisions
* End users who actually use the product

Next, gather customer needs and then convert those into engineering (project) requirements. After that, study applicable engineering standards (regulations) for any additional requirements (or constraints). Add these new items to your project requirements document.

Document the customer needs and project requirements using appropriate forms, such as a table, a set of use cases (user stories), and UML diagrams.

If you have many needs and specifications, present a summary here. Provide details in an Appendix or reference an external document. Ex: Excel file of customer needs and system requirements.

# Project Concept Development

To Do: Team is expected to develop several concepts and evaluate the best way to proceed. Introduce the major system or key sub-system concepts and evaluation results. (If you have developed many alternatives, present the remaining concepts in an Appendix.) We recommend including visual presentations of your concepts, such as clear sketches, engineering drawings, block diagrams, and data flow diagrams.

# Additional Considerations

To Do: You must consider the following issues to design your solution and/or make engineering decisions in addition to your customer’s specified needs.

* Public health, safety, and welfare
* Global
* Cultural
* Social
* Environmental
* Economic

If you already addressed the issue in a previous section, you only need to reference the section. If you think that a particular issue does not apply to your project, you may provide the answer - “Does not apply to the project”. You MUST provide a response for all 6 issues. Typical Design Lab project may be concerned with 2 to 4 of these.

# References

To Do: The references must list all published information sources, including electronic documents that are directly quoted or used to support your discussion or equation. **All references must be cited at the appropriate points within the report text.**

For a full version of MS Word, use Citations & Bibliography that is available under the References tab and generate this section automatically. Note that currently MS Word On-Line does not provide this feature.

If you plan to prepare this section by hand, the following formats are recommended because you will not have to renumber citations when a new item is added to your paper.

* Single author: [*Author’sLastName*, *Year*]
* Two authors: [*Author’sLastName1* & *Author’sLastName2*, *Year*]
* Three or more authors [*FirstAuthor’sLastName*, et al., *Year*]

This list of references uses the alphabetical order. For more information, see:

# https://www.commd.rpi.edu/resources/

# Appendix A: System Evaluation Plan (mandatory)

To Do: You will have to objectively measure your accomplishments at the end of the semester. Provide a test plan, including procedures, equipment, and software settings used in the tests.

# Appendix B: System Requirements (optional)

To Do: Present the system requirements. Organize the requirements according to appropriate types or priority. Assign a unique ID to each requirement. Any requirements that are design constraints must be marked as Constraints.

If your project focuses on a subset of the customer requirements, present them as either “in scope” or “out of scope”.

Feel free to change this section title, such as Product Specifications or Validation of System Requirements, according to the nature of your project.

# Appendix :

To Do: Include any necessary appendixes as needed.