ECE 402

EE DESIGN PROJECTS

Spring 2014

**PRELIMINARY DESIGN REVIEW REPORT**

[Project]

by

Team [Insert Team Name]

Section [] Team Number [] Locker/Box Number []

Please put your team information here. Note that you should take out the [] as well.

|  |  |  |
| --- | --- | --- |
| Team Member 1 | Subsystem 1 | Email 1 |
| Team Member 2 | Subsystem 2 | Email 2 |
| Team Member 3 | Subsystem 3 | Email 3 |
| Team Member 4 | Subsystem 4 | Email 4 |
| Team Member 5 | Subsystem 5 | Email 5 |

Cover Back – Intentionally Blank

Table of Contents

[1. Introduction and System Specification 5](#_Toc351991499)

[1.1. Use existing styles and subheadings where needed 5](#_Toc351991500)

[2. System Design 5](#_Toc351991501)

[3. Subsystem Design 6](#_Toc351991502)

[3.1. Optical Character Recognition 6](#_Toc351991503)

[3.2. Non-contact Material Sensing Subsystem 6](#_Toc351991504)

[3.3. Video aligner and storage 6](#_Toc351991505)

[3.4. Sequencer 6](#_Toc351991506)

[3.5. Video FX [Optional] 6](#_Toc351991507)

[4. System Manual 7](#_Toc351991508)

[5. Testing Plan 8](#_Toc351991509)

[6. Schedule Of Deliverables 9](#_Toc351991510)

[7. Known Costs 10](#_Toc351991511)

[Appendix A. Example Appendix 11](#_Toc351991512)

[A.1. Example Appendix Heading 11](#_Toc351991513)

This table is automatically made from any headings you put in your document using the Styles. It is very highly recommended to use Styles.

In fact to remove all these comments please right click on their style and choose “Select all instances”. You should simply be able to hit delete or backspace and they will be gone!

Contents Back – Intentionally Blank

# Introduction and System Specification

In this section use one page to describe the overall system and the subsystems. This is where you repeat to the customer what he told you – none of your work goes here.

* Why does the customer want this project?
* What does the customer want?

## Use existing styles and subheadings where needed

Remember that all headings and subheadings should use the right styles for this document from the box called “Styles” in the Word menu bar above. Use Google to learn how to use them. Don’t change the built in styles.

All text should be black, all pages white. Limited color may be used in diagrams.

Use “page breaks” from the “insert” menu to keep the document neat. Google “microsoft word page break”. I used one at the bottom of this page. To make all the invisible formatting characters appear click on the “¶” button. To make them go away again simply click once more on the “¶”.

# System Design



Figure 1. System Demonstrator Block diagram

Remember you only have one page to summarize the specification and the system design!



## Whole System Specifications to be Determined

1. Command List – what are they
2. Data arrangement for each command.
3. The interface to the bus slaves and subsystems

# Subsystem Design

Please do not forget to delete subsystems you do not have as a part of your team.

Each subsystem section must:

* Begin on a new page (see the “page break” information above)
* Be a maximum of 3 pages per subsystem. If you co do it in 2 then well done.
* Include the current block diagram for that subsystem
* Use the correct subheading style (Heading 2, 3, 4, etc.)
* Extra information can go into an appendix, e.g. measurements and reading. To understand your section you cannot require someone to read an appendix. These 3 pages are all you have got.

The headings below are provided for convenience by me. Remember they have to start on a new page.

Do NOT:

* Add Data Sheets, even in an appendix!
* Forget to add citations to any image
* Forget to use diagrams. No diagrams means you are doing it wrong.

### Example Subsystem Heading

# System Manual

System manual (abbreviated). It should have specific step-by-step operating instructions, with a brief description of all operator controls and a sketch or exact description of expected product(s).

# Testing Plan

At this early stage you probably don’t have much detail for the subsystem tests or the manufacturing subsystem tests as a team but you should have the acceptance test from the customer. Put that down here and discuss any agreed signals or clarifications under the subsystem tests and how you might test that.

# Schedule Of Deliverables

Create a Gantt chart or bar chart to indicate the estimated development effort to complete the system as specified by the customer. List all major tasks for each subsystem as well as the documents for the PDR, FDR and Final Demo (system manual and reports).

# Known Costs

Less than one page on costs please, Break the costs down by subsystem. Use Digikey, Mouser or Newark for estimating.

###### Example Appendix

Please remember this is a place for storing extra reference information. For example if you did an experiment and collected a lot of data then the key data would be in the main document and supporting extra data would go here (with an appropriate title).

Remember – you should never HAVE to read an appendix, this is not a way around the 3 page maximum.

Example Appendix Heading