EE202C

Networked Embedded Systems Design

<Smart Drone>

Design Document

<Enter Group Team Members Names Here>

**Version 1**

**Date**

Revision History

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| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Comments** |
| Version No | Date Completed | Author(s) | Comments on Versions |
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# Abstract

Brief abstract here. Kength is one quarter page.

# Team

Please list team members

It is also **critical** to define responsibilities for each team member.

Each team member responsibilities must include software development contributions to the IoT platforms for the project. Assessment of team member contributions will be made to ensure that all team members are engaged.

# Technical Approach

For this section please include:

1. One page description
2. This includes a discussion of general objectives
3. This may also includes a brief discussion of known or anticipated limitations (that may be entirely justifiable).

# System Design

For this section please include:

1. One page description of implementation
   * Include description of algorithms
   * Include architectural diagrams
   * Include discussion of specific challenges or missing elements that must be acquired.

# Implementation Schedule

This is a critical step.For this section please include dates for:

1. Design completion date
2. Test plan completion date
3. Design review date of Midterm in Week 6 **to include demonstrations of system operation**
4. Implementation completion date
5. Testing phase complete

# Implementation Description

For this section please include:

1. Two to five pages
2. This is an Implementation narrative description that should guide others who will learn about the architecture and approach you have used.
3. This augments the Section 2 and is primarily focused here on approach and the systems you used to compose your solution.
4. Please describe approaches used for implementation. This may include a description of the development of your system state machine, individual software modules, data acquisition methods, or others.

# System Source Code

# Test and Evaluation System

1. This description of the design of your test and evaluation system developed to test the design hypotheses described above.

# Test System Source Code Repository

1. This includes source code directory paths
2. These test systems may be shell scripts, for example that demonstrate your system and determine its response.

# Test Results

1. This is flexible. Please use as many pages as required here.
2. This will include both text and graphics
3. This section should include data describing test results for
   1. System performance with both success and failure displayed
   2. System operation (for example showing a sequence of operations described in a table form.

# Analysis

1. This is flexible. Please use as many pages as required here.
2. This is an opportunity to highlight the success of your development. Please note that there will be discoveries that show performance better than expectations and less than expectations. It is important that we describe both and give reasons. Of course, our objective is to be successful, but ,we recognize that there will be shortfalls. Experience in development helps us reduce the frequency and severity of shortfalls in design.
3. This section provides a discussion of results including:
   1. Comparison of actual operation with the operation expected at the time of design, at the midterm.
   2. Discussion of this performance describing reasons why performance may exceed or not meet objectives.
   3. Discussion of regions of applicability for our designs. That is, this section should describe regions where performance meets objectives and those where it does not.

# Shared Systems

1. Please list systems that you would wish to share with others for future use in future courses, or also in research. These systems could be used in their entirety or could inspire other utilities that are useful. Future courses will acknowledge your contributions.
2. Please provide a path to specific source code modules, for example.

# References

1. Please list references from publications or web sources that have been useful in your development.