

Due Thursday, December 13th, 2018 by 5:00PM

ET 408 box labeled "Design Reports"

COVER PAGE

(Get Creative!)

Team Name

Names of Team Members

ENGR 7A: Introduction to Engineering

University of California, Irvine

Fall 2018

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Executive Summary

Write a statement to summarize your project, e.g. specific design task you aim to accomplish. The summary should be in plain language and free from technical jargon as much as possible.

Problem Definition

Introduction

Introduce your objective and goal of the project in writing

Technical Review / Background

A brief history of quadcopter and current technology. PLAGARISM IS PROHIBITED.

Design Requirements

List all design requirements that were provided or derived (e.g. that you interpreted from provided requirements)

Design Description

Summary of Design

Summary with words and illustration including how various parts will come together as an assembly.

Design Details

Functional description: Sequential CAD illustrations with notes of materials, major dimensions, assembly center of mass location.

Wiring Diagram

Diagram of entire wiring network, computer-generated, color coded Red/Black wires

Action Item Report

Task Assignment

Narrative summary of management and task assignments

Gantt Chart

Full Gantt Chart with all action items populated (planned and actual displayed together)

Evaluation

Calculations

Thrust to Weight Ratio, Predicted Hover Flight Time

Test Plan

Detail plan on how the quadcopter parts and assembly were tested

Results & Discussion

Brief narrative of evaluation criteria and results (rigidity, stability, weight, agility, durability, etc.). Further evaluation including lessons learned and how you would incorporate changes next quarter.

Appendix A: SOLIDWORKS Drawings

Final design drawings, individual parts and full assembly, updated from Week 5 submission.

Appendix B: Bill of Materials

List of all materials, parts, and cost (updated PO Form)