

UC Irvine

SSOE Research Symposium Dean's Awards

Title

2018 AIAA Design/Build/Fly (Low Aspect Ratio Plate Aircraft)

Permalink

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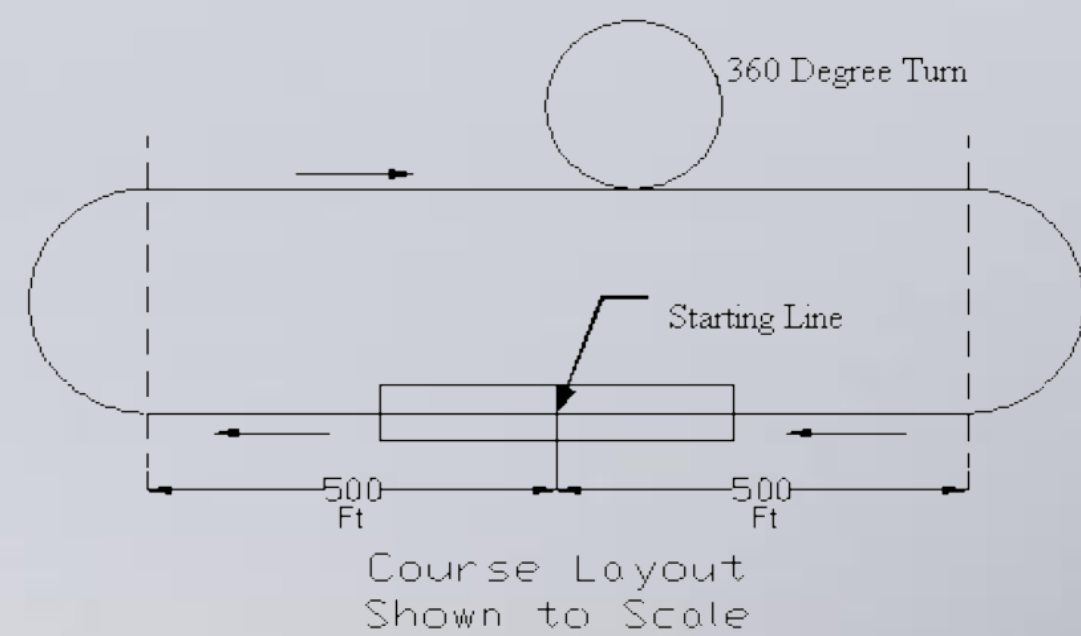
What is Design/Build/Fly?

Design/Build/Fly is an annual competition sponsored by the AIAA, Textron, and Raytheon that challenges students to design, manufacture and optimize an aircraft to meet competition requirements

Goals and Objectives

- Develop the engineering, teamwork, and communication skills
- Optimize the aircraft through an iterative process of aircraft development and testing
- Continue to document all processes related to operations, management, design, development and optimization
- Develop an aircraft that is able to yield the highest score at the 2018 AIAA DBF Competition

Flight Course



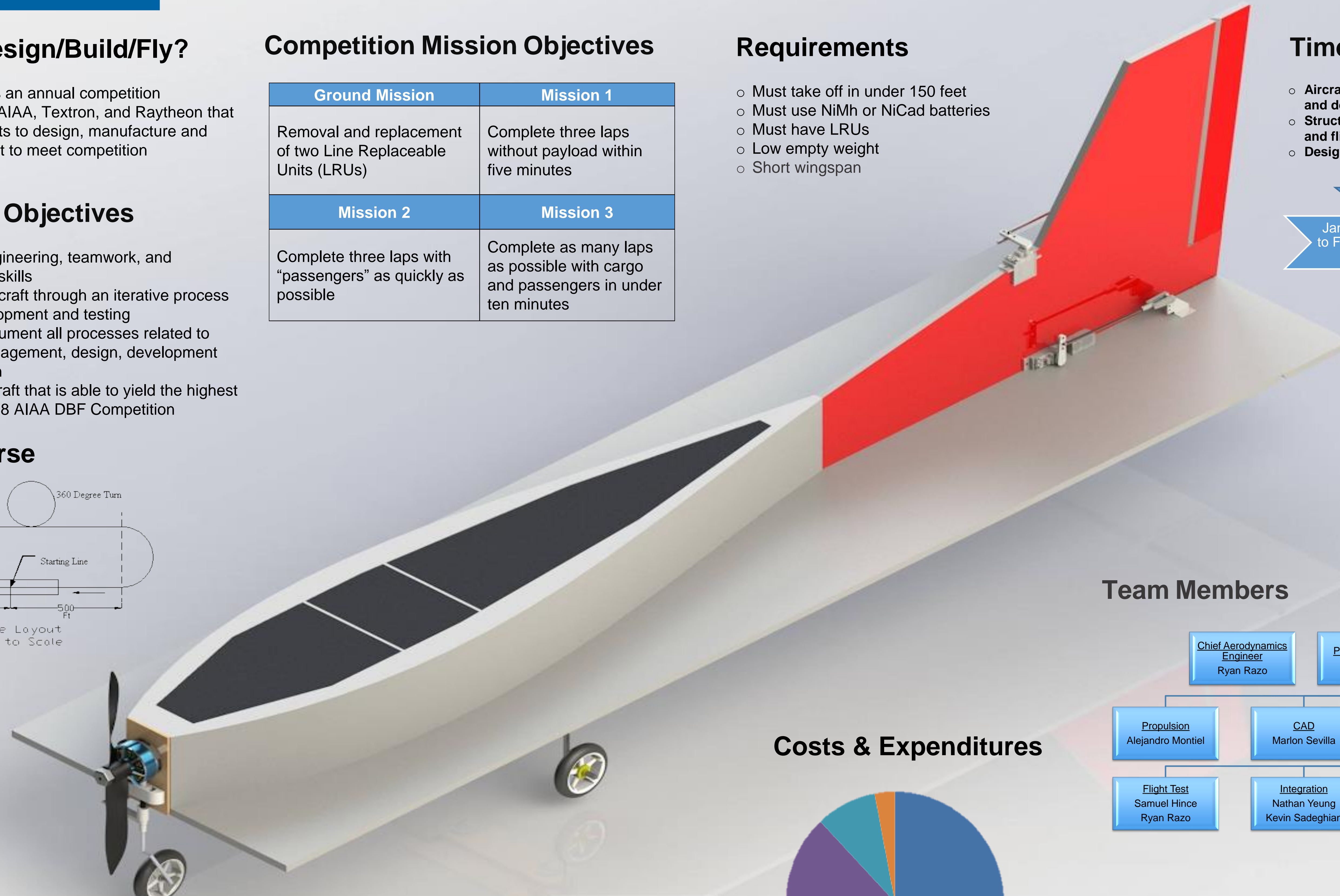
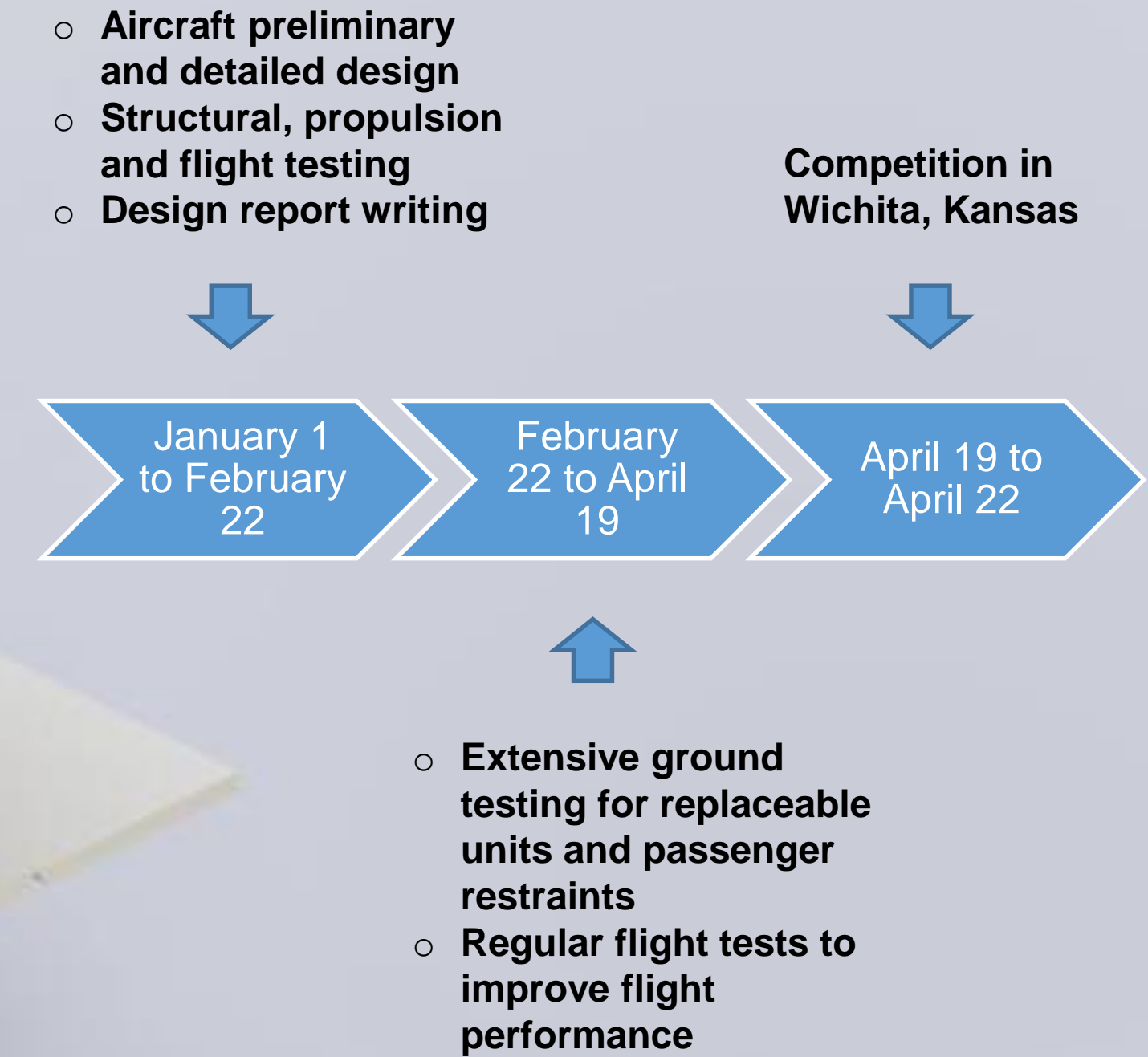
Competition Mission Objectives

Ground Mission	Mission 1
Removal and replacement of two Line Replaceable Units (LRUs)	Complete three laps without payload within five minutes
Mission 2	Mission 3
Complete three laps with "passengers" as quickly as possible	Complete as many laps as possible with cargo and passengers in under ten minutes

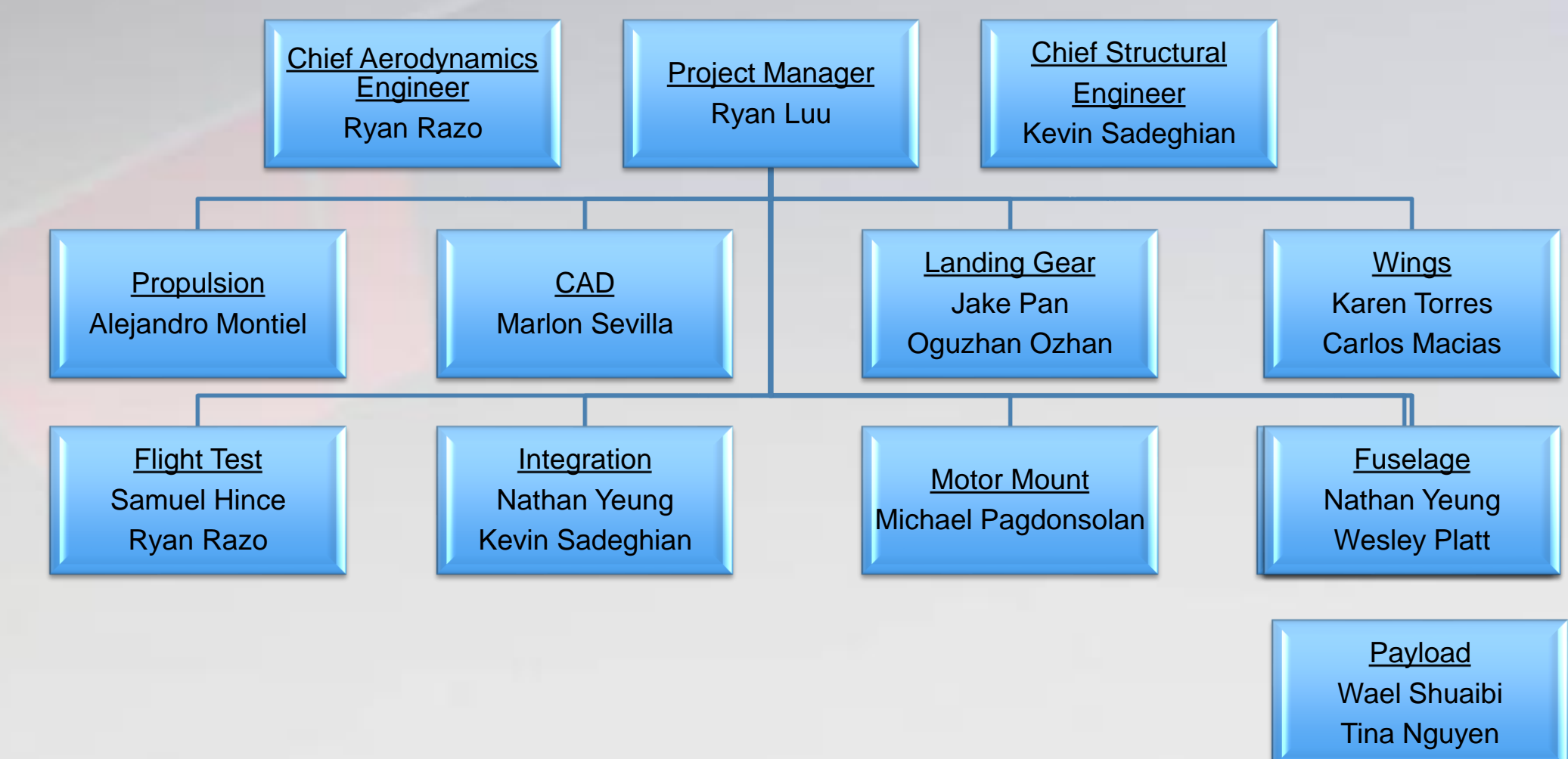
Requirements

- Must take off in under 150 feet
- Must use NiMh or NiCad batteries
- Must have LRUs
- Low empty weight
- Short wingspan

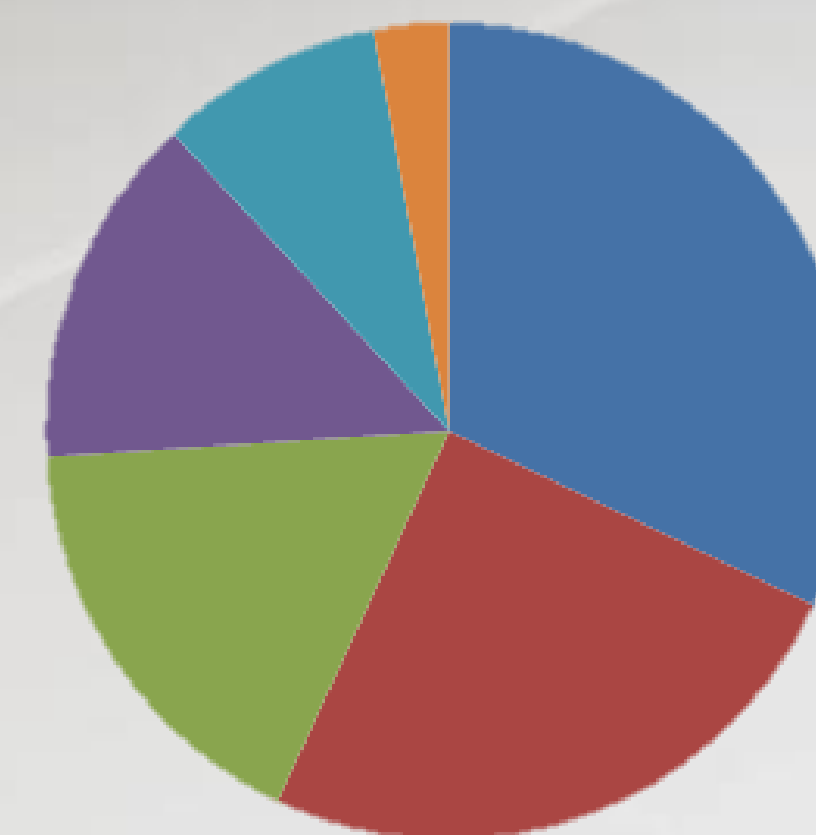
Timeline



Team Members



Costs & Expenditures



- Electronics
- Fabrication Materials
- Transportation
- Tooling
- Housing
- Off the Shelf Components

Grand Total: \$4,804.09

Contact the DBF Team

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