



./pics/logos/drgnfly_footer_col.png

+

Contents

Table of Contents	2
I Executive Summary (5 Points)	3
II Management Summary (5 Points)	3
III Conceptual Design (15 Points)	3
IV Preliminary Design (20 Points)	3
V Manufacturing Plan (5 Points)	4
VI Testing Plan (5 points)	4
VII Performance Results (10 Points)	4

I. Executive Summary (5 Points)

- Maximum of 1 page. If exceeded, score as 0 points
- Summary description of selected design and why it best meets the mission requirements
- Main points from subsequent sections
- Document the performance/capabilities of your system solution

II. Management Summary (5 Points)

- Describe the organization of the design team
- Chart of design personnel and assignments areas
- Milestone chart showing planned and actual timing of major elements

III. Conceptual Design (15 Points)

- Describes mission requirements (problem statement)
- Translate mission requirements into sub system design requirements
- Present a scoring sensitivity analysis.
- Review solution concepts/configurations considered
- Describe concept weighting and selection process and results

IV. Preliminary Design (20 Points)

- Describe design/analysis methodology
- Document design/sizing trades
- Describe/document methodology for prediction of aircraft performance (include capabilities and uncertainties)
- Provide estimates of the aircraft lift, drag and stability characteristics and method of prediction
- Provide estimates of the aircraft mission performance Detail Design (15 Points + 15 Points for Drawing Package)
- Document dimensional parameters of final design
- Document structural characteristics/capabilities of final design
- Document systems and sub-systems selection/integration/architecture
- Document Weight and Balance for final design
- Must include Weight & Balance table empty and with each possible payload/configuration
- Document flight performance parameters for final design
- Document mission performance for final design
- Drawing package:
 - 3-View drawing with dimensions of all configurations
 - Structural arrangement drawing

- Systems layout/location drawing
- Payload(s) accommodation drawing(s)

V. Manufacturing Plan (5 Points)

- Document the process selected for major component manufacture
- Manufacturing processes investigated and selection process and results
- Manufacturing milestones chart: plan and actual

VI. Testing Plan (5 points)

- Describe all major ground and flight tests performed.
- Objectives and schedule for each.
- Data to be collected and how applied.
- Test and flight check lists

VII. Performance Results (10 Points)

- Describe the demonstrated performance of key subsystems following execution of testing plan
- Compare to predictions and explain any differences and improvements made
- Describe the demonstrated performance of your complete aircraft solution
- Compare to predictions and explain any differences and improvements made