## I. Executive Summary (10 Points)

The key to the executive summary is to write it last (like an abstract). You should have the rest of the proposal done before starting on the Executive Summary. In terms used by kids these days, the executive summary is the tl;dr version of the proposal. You should be able to gather *all* of the important information from reading the executive summary, and it should be distilled down to concise terms. Generally, you should keep the executive summary to no more than a single page in length. Important things to include in the executive summary are:

- Objective Statement
- Planned approach to achieve all objectives
- Main points from subsequent sections

II. Management Summary (40 Points)

You'll want to begin here with a paragraph describing the organization of the design team, citing figure 1. It's probably easiest to figure this out by diagramming it on a white board, and then creating a your flow chart in powerpoint, or something. You'll
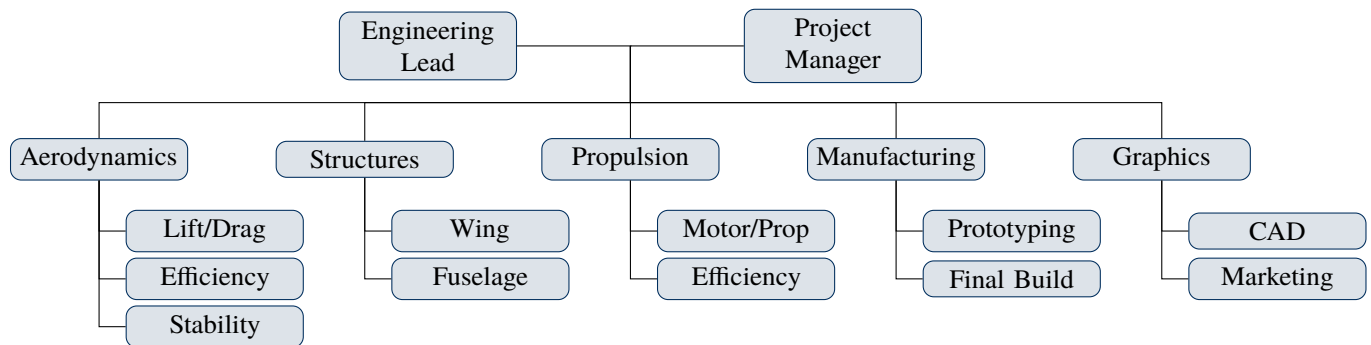
Figure 1   This chart depicts the design personnel and assignment areas within our team structure.

Figure 3 shows our planned project schedule. We have subdivided the project into four phases, each lasting six weeks (with an additional 5 week buffer for the final manufacturing of our design). Since the conceptual design is a major deliverable for this proposal, we have already completed this phase, and have moved on to Phase II: Preliminary Design. For the sake of brevity of this proposal, we will forgo including the beginnings of our preliminary design, and report its entirety in the final design report.

Figure Placeholder

**Figure 2   Example of Wrapped figure**

A. Budget

Put together a budget. Not much to it.

Here is an example of a wrapped table just in case you need more room. Note that the wrapped figures and tables need to be sandwiched between text in order to work. Also note that if you don't have a lot of text, weird spacing occurs. Wrapped tables and figures also just do weird stuff in general (like not staying withing the text bounds of the page and making weird white spaces where you don't want them.) In general, they should be avoided, especially for important things.

Table 1   Project Budget

Item	Cost ($)
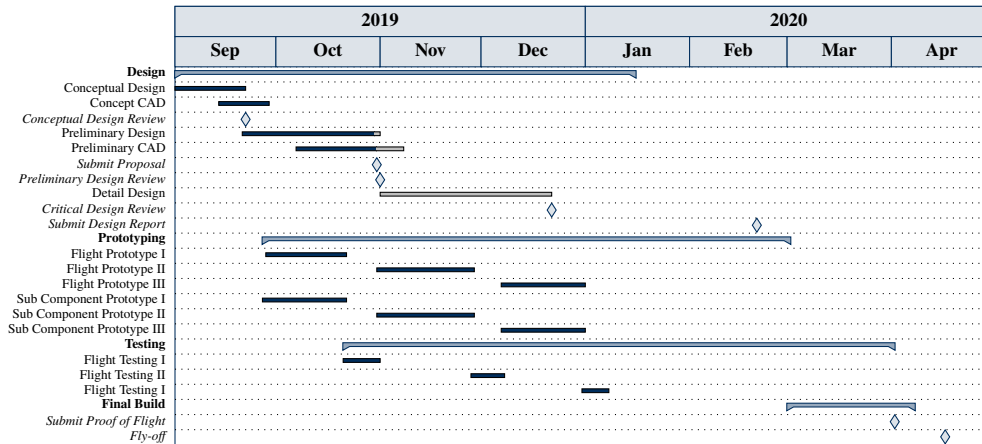
Figure 3 **This milestone chart shows our plan for major elements of our design process. Note that at the time of submitting this proposal, we have completed the conceptual design presented herein and have moved on to our preliminary design phase. Also note that we will begin prototyping early in order to apply a "fail fast, fail often" methodology to quickly fill the gaps in understanding and allow our underclassmen to develop their aircraft design intuition faster than if we waited to prototype after completing the design phases.**

III. Conceptual Design Approach (20 Points)

A. Mission Requirements

Decomposition of mission requirements into sub-system requirements.

1. Aerodynamic Requirements

2. Structural Requirements

3. Propulsion Requirements

4. Specialty Requirements

B. Preliminary Design

Preliminary design / sizing results; concept sketch, if available (does not have to be representative of the final design)
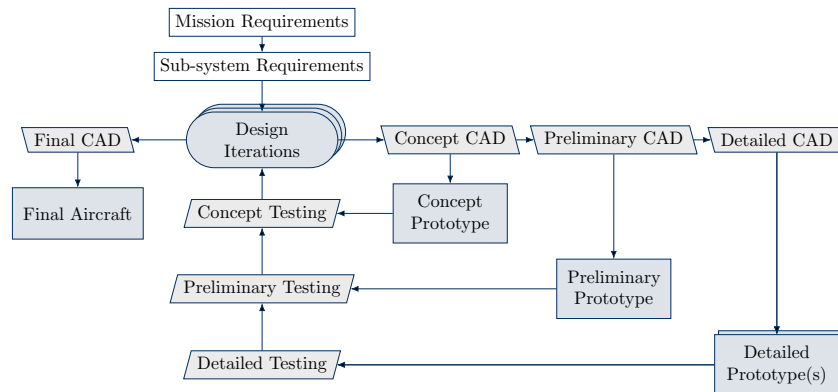

Figure 4 **Here we show a concept sketch of our current design iteration.**

C. Sensitivity Studies

Sensitivity Study of Design Parameters

IV. Manufacturing Plan (15 Points)

- Preliminary manufacturing flow

- Describe critical processes or technologies required

Figure 5   We show here an extended design structure matrix of our proposed manufacturing plan.

V. Testing Plan (15 points)

- Component and ground test plan

- Flight test plan