



Date: January 29th
From: Dr. Kaputa
To: Drone Team
Subject: UAV Power Analysis

Introduction

Identify the subject, purpose, and plan of the tech memo [what, why, how]. For the MX1 project we have chosen the Matrice 600 as the UAV to fly the sensor payload. One important factor to consider when selecting the UAV as well as each sensor is the power consumption of each component *[what]*. The reason for this analysis is that power draw of the components can *[why]*:

- Determine if flight is feasible.
- Determine the maximum flight time.

The below analysis investigates the power draw of all sensor components as well as the power draw from the Matrice 600. All different battery configurations were taken into account. This memo investigates not only rated power draw in Watts, but also average current draw as well as peak current draw of each component.

Analysis

Contains a step by step logical argument as if putting together a court case. This section contains all pertinent data as well as explanation of acronyms or technical jargon. Make sure to specify units such as centimeter or inches so that things don't fall out of the sky. [<http://articles.latimes.com/1999/oct/01/news/mn-17288>] Some other tips.

- *Keep this section as brief as possible.*
- *Don't put in extra data that can clutter the important data.*
- *If things do fall out of the sky know that your boss will ask to see the data presented here.*
- *If there are multiple analysis its recommended to put a little intro paragraph before each section.*
- *Highlight or circle sections of the data that are important or that are used to arrive at the conclusion below.*

Conclusion

This section is the whole purpose of the memo. What is the result?

- *Do not be vague.*
- *Use language like below*
 - *Since the analysis determine the air speed velocity of an unladen swallow is precisely 5.6 m/s, it is recommended that all civilians living within 100 miles of their habitat*
- *Understand that many people will only look at this section.*
- *List conclusions in bullets instead of text so multiple conclusions will not be overlooked.*
- *List out any risks or pertinent data that the read should be aware of.*