2019 Bronze Propeller Competition – Thrust LiPo 1500 mAh 3S 40C
December 19, 2018

This document outlines the results of performance tests on a representative battery pack for the 2019 Bronze Propeller Competition. The data was obtained using a computer-controlled battery analyzer operating at room temperature. The battery was properly cycled and charged prior to all testing. All discharge rates were tested a minimum of two times to ensure repeatability (for clarity only one plot for each is shown).

Battery Pack Information:
- Thrust LiPo 1500 mAh 3S 40C
- Pack composition: 3 cells wired in Series
- Nominal Voltage: 11.1V
- Listed Capacity: 1500 mAh
- Size & Weight: 0.65” x 4.3” x 1.3”, 4.75 oz

Test Data:
- 6 discharge currents were examined: 7.5, 15, 22.5, 30, 37.5, and 45 Amps.
- The plots display measure pack voltage vs. capacity (Ah)
- Cutoff Voltage: 9V

![Discharge Curve for Various Discharge Rates](image)

Notes & Warnings!
- Temperature impacts battery performance (high ambient temperatures and/or poorly ventilated installations can notably diminish battery performance – consider this aspect during design)
• A specific competition Electronic Speed Controller (ESC) may be required to protect batteries and to simplify purchasing (watch web page for additional information)

References:
If you are interested in learning more about batteries the following websites have great information and references:

http://batteryuniversity.com/learn/article/lithium_based_batteries

http://www.buchmann.ca/buchmann/