



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2018 PROJECT SUMMARY**

Name(s) Tristan H. Williams	Project Number 38124
Project Title Efficiency of Multi-Bladed Propellers	
Abstract Objectives/Goals In my experiment, I attempted to figure out how many blades on a propeller were most efficient. I examined 4 different types of propellers: a two bladed propeller, a three bladed propeller, a four bladed propeller, and a six bladed propeller. Methods/Materials During my experiment, I examined 4 different types of propellers: a two bladed propeller, a three bladed propeller, a four bladed propeller, and a six bladed propeller. By using a thrust stand and program developed by RC Benchmark, I tested each propeller on the stand to find the thrust, voltage input, amperage input, total wattage input, and propeller rotation speed. Results At the end of my experiment, I concluded that the two bladed propeller was the most efficient of the four even though it generated lower amounts of thrust. The power that the propeller used was also substantially less compared to the other propellers which led to it being more efficient. Conclusions/Discussion The efficiency of of propeller blades contributes greatly to the flight time and range of aircraft. People who fly aircraft that do not use a turbine to generate thrust may be interested in some factors and information which may adjust the efficiency of the propeller blades that they may be using.	
Summary Statement I am attempting to find how many blades on a propeller is most efficient using a thrust stand and computer program.	
Help Received I set up and tested my experiment without any help . I got some help from my mom while editing.	