



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

Name(s) Junho Park	Project Number 38677
Project Title Exploration of Drone Models and Movements	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Does the expensive drones have better control and stability compared to the cheaper ones. This experiment tests four different drones at different price points ranging from \$15 to \$200.</p> <p>Methods/Materials The material list includes: one parrot rolling spider, Codrone pro, LBLA mini drone, Hasakee H6 foldable drone, timer, and meter stick. Comparing stability and functions of 4 drones by controlling them in a same amount of time.</p> <p>Results The \$25 Hasakee drone was able to perform the best out all four drones. The movement on the Hasakee drone performed 40% faster. The drone's best performance was in the execution of the yaw rotation, which was 2.5 times faster than the slowest drone. The worst drone was the LBLA drone because it barely passed the basic movement test. It failed the combination movement tests. The ranking of performance from best to worst was Hasakee, Parrot, Codrone, and LBLA mini. On a side note, the Parrot had the best execution of combination movements, making it a better precision drone.</p> <p>Conclusions/Discussion My experiment did not prove my hypothesis that drones that are more expensive will have better control than the cheaper models. While the \$50 Parrot drone had the best control, the Codrone could lacked the ability to perform as precisely. The \$15 LBLA drone had the poorest control.</p>	
Summary Statement The controls of the drone do not depend on the price.	
Help Received I received help from my parents who helped me to purchase my research materials and support me. I also want to say thank you to my mentor Tim Kim.	