Project Experiment Overview

In these set of experiments, we set out to see if our attachment could really work on a cheap drone as well as a nice drone. By doing weight tests, we were able to see that a $60 drone was able to effectively carry the box 40 yards and back almost as efficiently as it would with no box. This showed our attachment is light enough and also usable. This test showed that if a cheap $60 drone worked, then surely a nicer more powerful drone would work as well.

Drone Model with Prototype One Modular Housing (no camera)

	Trial 1	Trial 2	Trial 3
Time	30.01 seconds	19.20 seconds	20.22 seconds
Height	130 inches	130 inches	130 inches
Speed	2	2	2

Drone Model without Prototype One Modular Housing (no camera)

	Trial 1	Trial 2	Trial 3
Time	16.26 seconds	18.35 seconds	15.82 seconds
Height	130 inches	130 inches	130 inches
Speed	2	2	2

Notes

Test flights in the sun and in the rain showed that a typical low quality drone can in fact carry our device in all weather with relatively same speed and distance.

Conclusion

Experiments were conducted to test how weight affects drone flight. This is important for our project because in order for our product to serve its purpose, then standard drones must be able to function properly with added weight.

The data presented in the charts shows how weight affects the speed of flight of a drone. It shows that there is a very small increase in speed when the extra weight is included, and the functionality of the drone does not change with the added weight.

Based on our data, not only do the drones still function, but they still act efficiently even with the added weight. This collected data is vital for the product because it proves the functionality of the product. Now that it is proven that weight does not affect the functionality of a drone, it can be assured that our product will be able to attach to standard drones and the drone will still be operable. Testing the speed of flight is one of the most important components of the product because speed and efficiency of the drones is vital in the functionality of our project.