**Flight Test Report**

Model No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Serial No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Place of Flight: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Check in Time: \_\_\_\_\_\_\_\_\_\_\_\_\_ Check out Time: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Total member going for test: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Summary of Drone**

Here We have a 10 liters drone equipped with mauch power modules and a current sensor, along with a new fresh Cube Orange flight controller and Motor dealing with Here 3 plus GPS.

**Test Purpose and Objectives**

1. Assess the prototype stability, Hover and control under various flight conditions.
2. Measure the endurance and battery efficiency under nominal operational loads.
3. Testing the communication system performance.
4. Payload testing in Ascending order for 5,10 liters water.

I\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, hereby confirm that I am assuming full responsibility for all aspects related to this test, as per the instructions provided."

Higher Authority Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Pilot signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Test Results and Analysis**

1. Testing at no payload:

At 14:02pm, we conducted a standard test without any payload. During the test, we observed a slight decrease in thrust value and a slight increase in yaw value else everything properly working, we disarmed at 14:12pm and remaining battery is 46volt

2. Payload with 5-liter water

At 2:20, we initiated the second flight with a payload of 5 liters water with a new battery (B-B) , on reaching a height of 7 meters, the current peaked at 76 amps, we Hover for some minute then the drone performed the spraying operation normally. At 2:25, we take a Return to Land command and the remaining battery voltage is 48.5 volts

3. Payload with 10-liters water

At 2:29, we takeoff the drone with the same battery. At a height of 6.5 meters, the current draw peaked at 104 amps. Yaw was slightly higher than expected, but the spraying operation proceeded smoothly. After completely spraying we took the RTL at 2:36. And lastly, we checked the temperature of the Cube Orange using a temperature gun, and it was 53-degree C.

Observation

Current sensor showing unexpected value

Yow movement has high value

-------------------**All the testing was completed Successfully. --------------------------**

Pilot sign :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Support member sign\_:\_\_\_\_\_\_\_\_\_\_\_\_\_\_