

Table Header		
DATE:		
OBJECTIVE <ul style="list-style-type: none"> - Fly the OpenUAS1 for at least 10 consecutive minutes without harming any components - Verify all controls (ailerons, flaps, elevator, and rudder) are functioning during flight - Verify all sensors (pitot tube, altimeter, GPS) are functioning during flight - Land the OpenUAS without structural or internal damage - Collect minimal flight performance data (climb rate, cruise velocity, descent rate) 		
SUCCESS CRITERIA <ul style="list-style-type: none"> - Hand-launch resulted in successful takeoff - No structural or internal component damage after 10 minutes of flight and touchdown - All control surface inputs responded as expected - All flight data correctly displayed and saved in QGroundControl - Airspeed sensor and GPS provided reasonable data 		
LOCATION	TEST SYSTEM	TEST CONDITIONS
-	- OpenUAS1	-
PROCEDURES <ol style="list-style-type: none"> Complete Preflight Checklist <ul style="list-style-type: none"> <input type="checkbox"/> UAS is flight ready <input type="checkbox"/> Team is briefed on safety concerns <input type="checkbox"/> Team is briefed on roles and objectives Have UAS in a team member's (launcher) hands Pilot will input full throttle Conduct hand-launch of UAS. Mark time Climb to 100 feet and reduce power to level off into steady flight <ul style="list-style-type: none"> <input type="checkbox"/> Mark time at 100ft Conduct left turn with half servo input <ul style="list-style-type: none"> <input type="checkbox"/> Visually verify aircraft can make a 360 degree left turn Conduct a right turn with half servo input <ul style="list-style-type: none"> <input type="checkbox"/> Visually verify aircraft can make a 360 degree right turn Test the flaperons by lowering them one notch <ul style="list-style-type: none"> <input type="checkbox"/> Observe change in flight characteristics Input a small amount of aileron to make a left turn <ul style="list-style-type: none"> <input type="checkbox"/> Visually verify aircraft can make a left turn Test the flaperons by lowering them to the lowest position <ul style="list-style-type: none"> <input type="checkbox"/> Observe change in flight characteristics Descend to 50feet and maintain steady flight Use the elevators to pitch up and decrease airspeed Use the elevators to pitch down and increase airspeed Return to 50ft and maintain steady flight Use the rudders to yaw to the left and right <ul style="list-style-type: none"> <input type="checkbox"/> Visually verify correct response Climb to 100ft and maintain steady flight until approximately 9 minutes into flight Descend to 50ft by slowly removing power Once 50ft has been reached, put flaps down Do a low pass to test landing characteristics After one-two fly-bys, land the aircraft. If last flight, disconnect in the following order: <ul style="list-style-type: none"> <input type="checkbox"/> Disconnect the battery <input type="checkbox"/> Turn off Taranis controller <input type="checkbox"/> Disconnect from QGroundControl <input type="checkbox"/> Measure voltage of the battery <input type="checkbox"/> Assess aircraft for damage 		

DEBRIEF		
- Objectives met:		
- Battery pre-flight: ———	- Battery post-flight: ———	- Power consumption:
- Climb rate:		
- Climb velocity:		
- Cruise velocity:		
- Descent velocity:		
- Max Altitude reached:		

Table 1: **Flight Test 1**