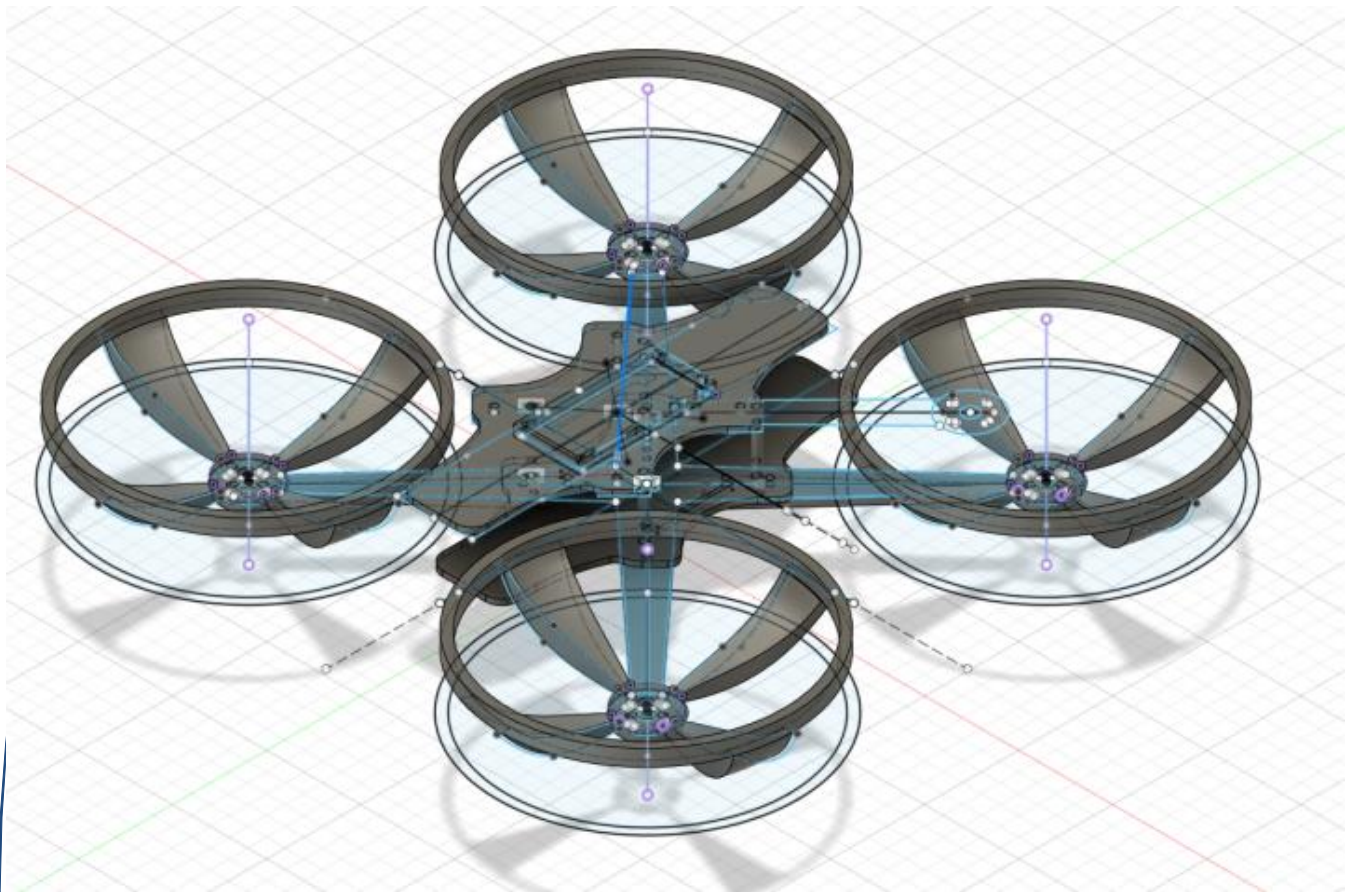# Surveilia Requirements

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Reference #	Requirement	Test	Pass/Fail Criteria	Criteria Met
001	*Drone has stable flight*	PID testing station, on a teetering wedge	*Pass if motors align parallel with workbench*	Pass / Fail
002	*Must fly in a 3D space autonomously*	*Create a boundary in the system, drone must fly randomly with control*	*Pass if drone moves in boundary with no conditioning*	Pass / Fail
003	*Must send flight data to remote console*	*Drone sends test data to GUI.*	*Pass if GUI receives 90% of data at 30 meters from router*	Pass / Fail
004	*Must recognize a human*	*Camera is pointed at random objects and humans*	*Pass if alert is created from viewing humans with 90% accuracy*	Pass / Fail
005	*Must have configurable instructions through a remote console*	*GUI must send test data to drone*	*Pass if drone receives 90% of data at 30 meters from router*	Pass / Fail
006	*Must have a plottable flight path*	*Create flight path with ArduPilot and waypoints*	*Pass if drone collects 100% of waypoints*	Pass / Fail
007	*Must go idle if outside of control range*	*Send drone outside of boundary*	*Pass if drone pauses all processes and hovers indefinitely*	Pass / Fail
008	*Must have automatic initialization*	*Initialize functions on startup*	*Pass if startup procedure is followed*	Pass / Fail
009	*Must have manual interrupt of tasks*	*Interrupt automated flight path with command*	*Pass if tasks are paused after interrupt*	Pass / Fail

010	*Must have battery efficiency*	*Drone is in a hover with all peripherals active*	*Pass if hovers for 59 minutes without recharging*	Pass / Fail
011	*Must have auto-home*	*Drone hovers off of pad and is ordered to home*	*Pass if drone lands back at designated home when commanded*	Pass / Fail