

PX4 CLASS DRONES SAFETY CHECKLIST

Frequencies/Numbers

Babson CP's: 781.239.5555
 PixHawk Radios: 915Mhz
 PixHawk Channel: Match with UAV
 RC Transmitter: 2.4Ghz
 Connex Video: 5.1-5.8Ghz

Drone

General Condition	Check
Battery	Secured, Check Charge Level
Payload	Secured
Payload Function	Check and Arm
Other Items	Secured or Removed
Shake Check	Perform
Comms Antenna	Point As Appropriate
Propellers	Attach
Propeller Direction	Check
Propeller Locknuts/Washers	As Appropriate
Wind Speed/Direction	Check
Weather	Check
Transmitter	On/Battery Charged
Transmitter Model Select	Match Vehicle

Preflight

Drone Battery	Connect
Communications Link	Connect
Battery Voltage	Check
GPS Lock	Check
Battery Capacity	Set and Check
Failsafe Cutoff Voltage	Set and Check (3.3 v/cell or 20%)
Battery Failsafe	On
Transmitter Failsafe Parameter_975	Always RTL
Transmitter Signal	Check
Flight Modes	Check (<i>Refer to flight modes section</i>)
GPS Fence	On, Check Limits (<i>minimum required & <100M, Radius as required</i>)
RTL Altitude/Descent Rate	27 Meters 1 Meter/Second
Mission File (<i>if applicable</i>)	Load to Vehicle

Ground Station

General Condition	Check
Battery Level	Check
Mission Planner/APM Planner	Execute
Ground Radio	Connect

Launch Prep

Propellers	Clear
Area	Clear (3+ Meter Radius)
Personnel	Ready and Aware
Arming Button	Press
Pilot	Announce "Arming"
Arm	Left Stick to Lower Right

[Continue to Backside](#)

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Landing

Throttle	Down
Disarm	Left Stick to Lower Left

Post Flight

Datalink	Disconnect
Battery	Unplug and Stow
Transmitter	Off and Stow
Propellers	Remove and Stow
Antennas	Orient for Stow
Vehicle	Stow
Radios	Off and Stow
Telemetry	Off and Stow

Blink Colors

Red/Blue Flash	Gyro Initialize
Blue Flash	Disarmed, No GPS
Blue Solid	Armed, No GPS
Green Flash	Disarmed, GPS Lock
Green Solid	Armed, GPS Lock
Yellow Double Flash	Prearm Check Fail
Yellow Single Flash	Radio Failsafe
Yellow/Blue Flash	GPS Error/Failsafe
Yellow/Red Flash	EKF/Inertial Failure
Yellow/Purple Flash	Barometer Failsafe
Red Solid	ERROR

IMPORTANT: On first flight, run safety checks (e.g. RTL, mode switch) immediately after takeoff

Flight Modes

RED = NO GPS HOLD

BLUE = GPS HOLD

ITALICS = OLIN PRIMARY MODES

Stabilize	Reject Disturbance
Alt Hold	Maintain Altitude
Loiter	Maintain Position
RTL	Return to Launchpoint
Auto	Autonomous
Acro	Full Manual
Sport	Hold Altitude
Guided	Go to GPS Coordinate
Drift	Fly Like a Plane
Circle	Orbit or Rotate at a Point
Pos Hold	Hold Current Position
Land	LAND IMMEDIATELY
Brake	Stop Immediately
Follow Me	Follow Assigned GPS Device
Simple/Super Simple	Pilot Heading Control

Tones

Long Beep	Arming
Two Short Beep	Disarming
"Uh Oh"	Failed to Arm
Rapid Beeps	Low Battery
"Dee dee dee dah"	GPS Error
Descending Notes	Barometer Error
Ascending Notes	EKF/Inertial Nav Error