

Arming the motors

Before arming the motors, make sure all people and objects are clear of the propellers. Then do the following:

1. Turn on your transmitter
2. Plug in your LiPo battery. The red and blue lights should flash for a few seconds as the gyros are calibrated (do not move the copter)
3. The pre-arm checks will run automatically and if any problems are found on a Pixhawk the RGB led will blink yellow. Please refer to [the Pre-Arm safety check page](#).
4. Check that your flight mode switch is set to Stabilize, AltHold or Loiter.
5. If using a PX4, press the middle safety button until the light goes solid.
6. If you are planning on using the autopilot (i.e. Loiter, RTL, Drift, Auto or Guided modes) you should wait for 30 seconds after the GPS has gotten 3d lock (8 satellites). This will give the GPS position time to settle. On a Pixhawk the RGB LED will blink green.
7. Arm the motors by holding the throttle down, and rudder right for 5 seconds. It takes approximately 5 seconds the first time the copter is armed as it re-initialises the gyros and barometer. Do not hold the rudder right for too long (>15 seconds) or you will begin the [AutoTrim](#) feature.
8. Once armed, the red arming light should go solid and the propellers will begin to spin slowly. The on-screen display will indicate ARMED.

Note: you can only arm or disarm in Stabilize, AltHold and Loiter mode

Note: if you leave the throttle at minimum for 15 seconds while in any of the above modes the motors will automatically disarm.

Disarming the motors

To disarm the motors do the following:

1. Check that your flight mode switch is set to Stabilize, AltHold or Loiter
2. Hold throttle at minimum and rudder to the left for 2 seconds
3. On the Pixhawk the RGB LED will start flashing green.
4. If using a PX4, press the safety button until the led begins flashing
5. Disconnect the Lipo battery
6. Turn off your transmitter

Pre-Arm Safety Check

The Pre-arm Safety Check which will prevent your Copter from arming if any of the following issues are present.

Verifies that Radio Calibration has been performed.

Verifies that Accelerometer Calibration has been performed.

Verifies that the Compass is Healthy and communicating properly.

Verifies that Compass Offsets are not too large

Verifies Adequate Compass Magnetic Field Strength

Verifies that the Barometer is healthy and communicating properly.

If circular fence is enabled or you are arming in Loiter, the safety check verifies that:

- you have GPS Lock

- GPS hdop < 2.0 (configurable using GPS_HDOP_GOOD parameter)

- ground speed is less than 50cm/s

If radio failsafe is enabled, checks the throttle channel's minimum value is not below the FS_THR_VALUE

checks the ANGLE_MAX parameter (i.e. maximum angle the copter will lean over in most modes) is >10deg and <80deg

Checks the radio's roll, pitch, throttle and yaw min is less than 1300 and max are > 1700

If everything else seems OK except that when you try to Arm with the throttle down and to the right, it will not actually arm and the motors will not spin, it has probably failed the Pre-Arm Safety Check. You should also notice that the red arming light will double flash.