

Introduction to Quadrotor UAV Components

Asmala Ahmad

What is Quadrotor UAV?

- A quadrotor UAV or quadcopter, also called a quadrotor helicopter or just quadrotor, is a multicopter that is lifted and propelled by four rotors.
- Quadcopters are classified as rotorcraft, as opposed to fixed-wing aircraft, because their lift is generated by a set of rotors (vertically oriented propellers).
- Quadcopters generally use two pairs of identical fixed pitched propellers; two clockwise (CW) and two counterclockwise (CCW). These use independent variation of the speed of each rotor to achieve control. By changing the speed of each rotor it is possible to specifically generate a desired total thrust; to locate for the centre of thrust both laterally and longitudinally; and to create a desired total torque, or turning force.

What you need to assemble your own quadrotor UAV

- 1. Frame + Additional parts for mounting such as velcro and zip ties
- 2. Motors (4X)
- 3. Propellers (4X)
- 4. Electronic Speed Controller (4X)
- 5. Battery
- 6. Power Distribution Board
- 7. Battery Charger
- 8. Flight Controller
- 9. Radio and Receiver



Frames

- Usage Categories:
 1. Racing
 2. Utility
- Type of Frames based on Materials:
 1. Plastic
 2. Glass Fiber
 3. Aluminium Tubing
 4. Carbon Fiber Tubing
 5. Carbon Fiber Plate

Frames



Motors

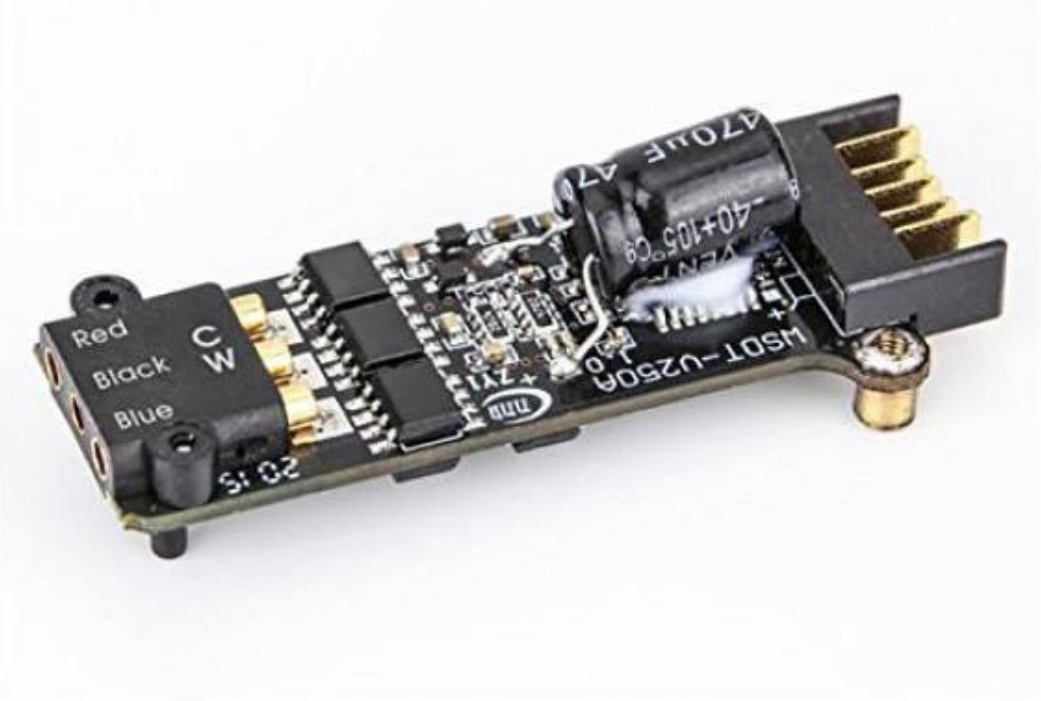


4 x Quantity of Walkera QR X350 PRO Brushless Motor PRO-Z-06 (WK-WS-28-008C) for Quadcopter

Propellers



Automatic Speed Controller



Battery



Store No: 912559

For X800

Li-po battery(22.2V 10000mAh)



Power Distribution Board



Flight Controller



Radio Receiver

walkera



DEVO F12E
5 Inches LCD 5.8G FPV Transmitter



FPV图传距离: 1.5-2km
DEVO 10遥控距离: 2km
选配: Fatshark 护目镜
FPV image range: 1.5-2km
DEVO 10 control range: 2km
Optional: Fatshark goggle

2.4
GHz

Battery Charger

