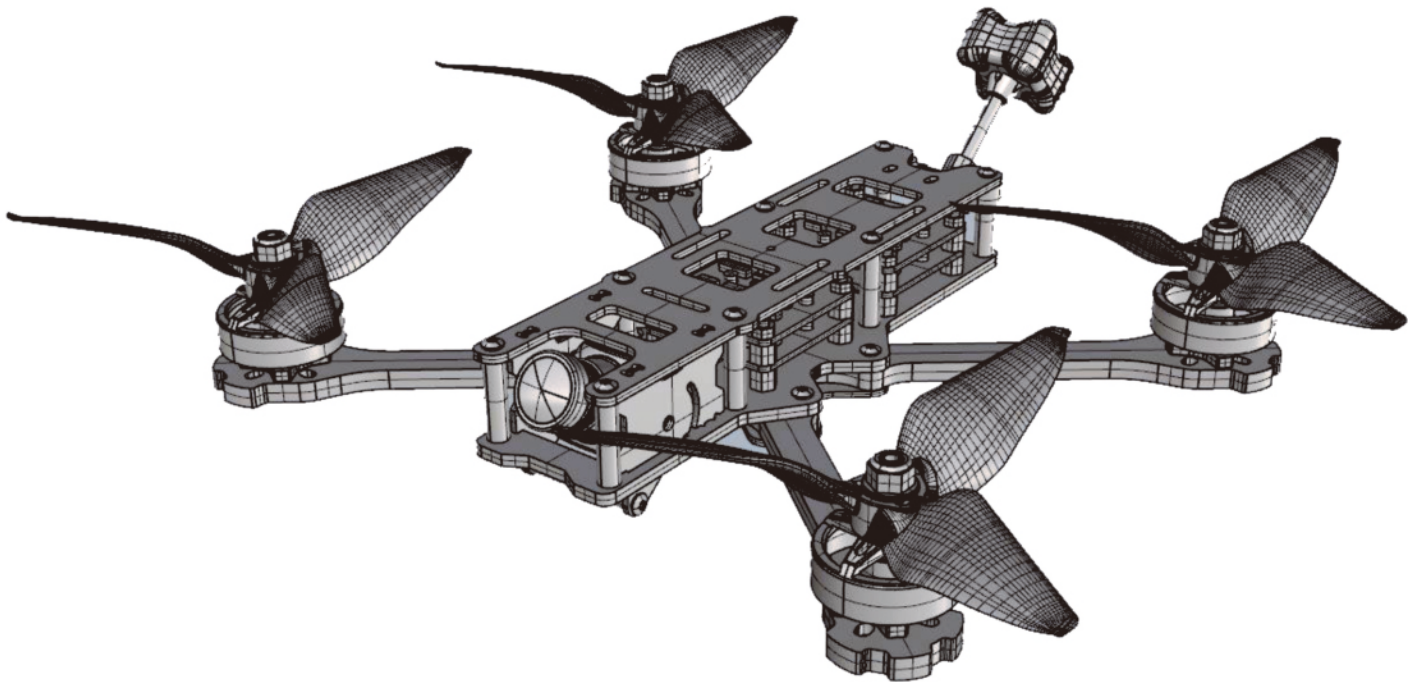


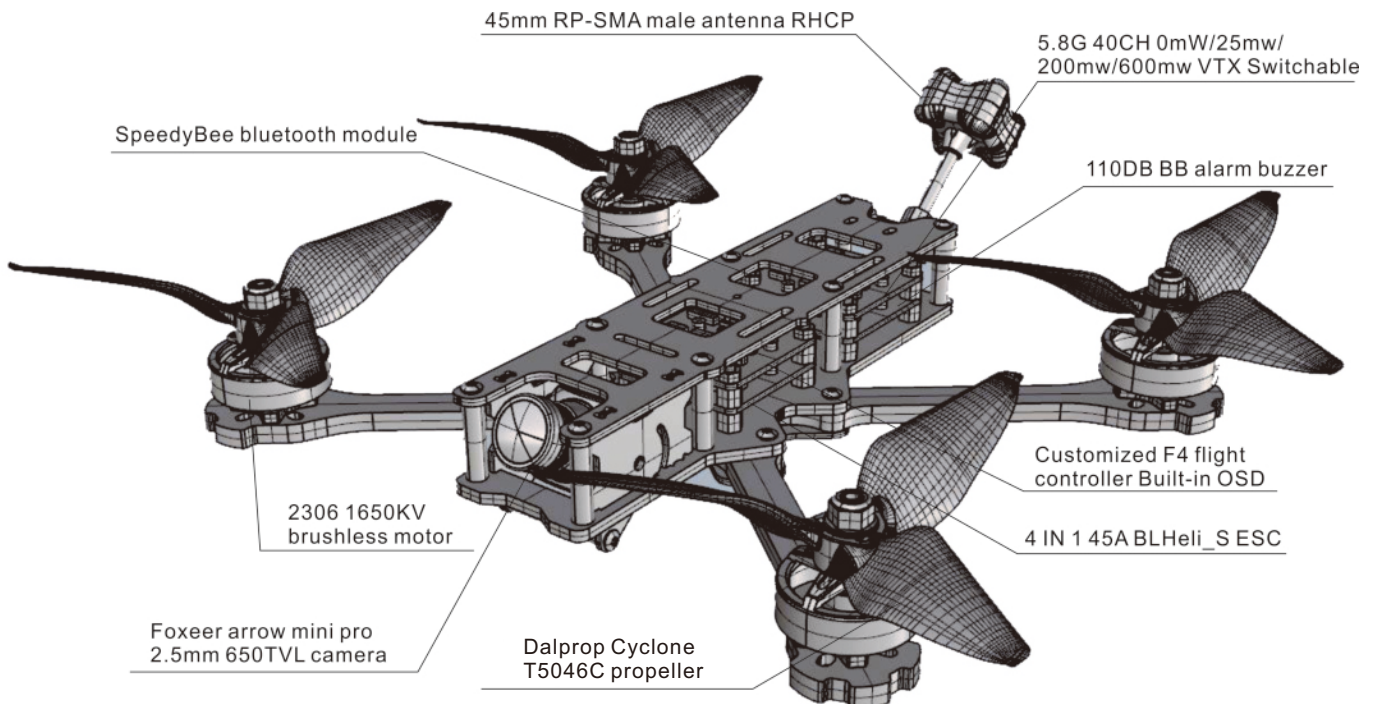
WIZARD X220HV

QUICK START GUIDE



Package included:

- 1 x X220HV frame kit
- 2 x 2306 1650KV brushless motor CW
- 2 x 2306 1650KV brushless motor CCW
- 1 x 4 IN 1 45A BLHeli_S ESC
- 1 x Customized F4 flight controller Built-in OSD
- 1 x Foxeer arrow mini pro 2.5mm 650TVL camera
- 1 x 5.8G 40CH 0mW/25mw/200mw/600mw VTX Switchable
- 1 x 110DB BB alarm buzzer
- 1 x SpeedyBee bluetooth module
- 1 x 45mm RP-SMA male antenna RHCP
- 2 x 200*20mm battery strap
- 1 x 30° camera mount compatible with Runcam 3 3S Gopro session
- 2 x Dalprop cyclone T5046C transparent white CW
- 2 x Dalprop cyclone T5046C transparent white CCW
- 2 x Dalprop cyclone T5046C transparent purple CW
- 2 x Dalprop cyclone T5046C transparent purple CCW
- 10 x 2.5*100mm nylon strap black



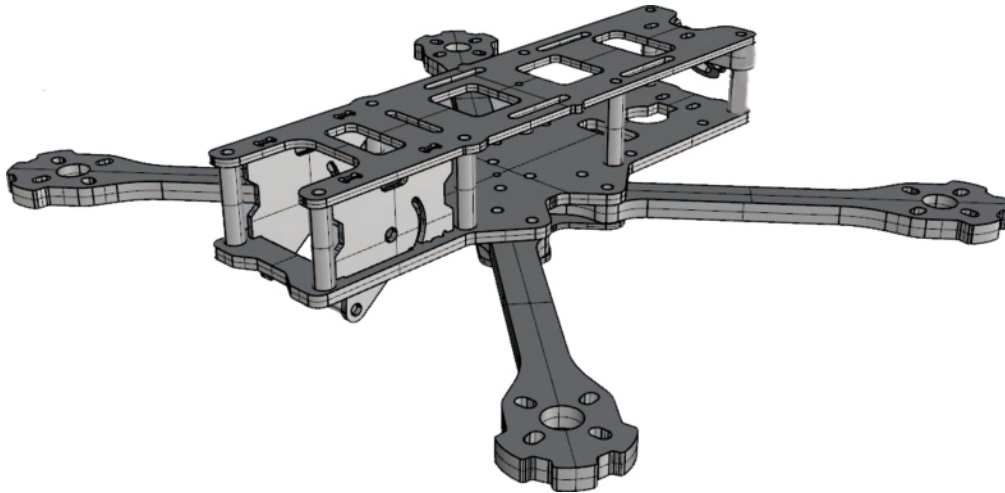
Contents

1.0 Frame kit-----	04
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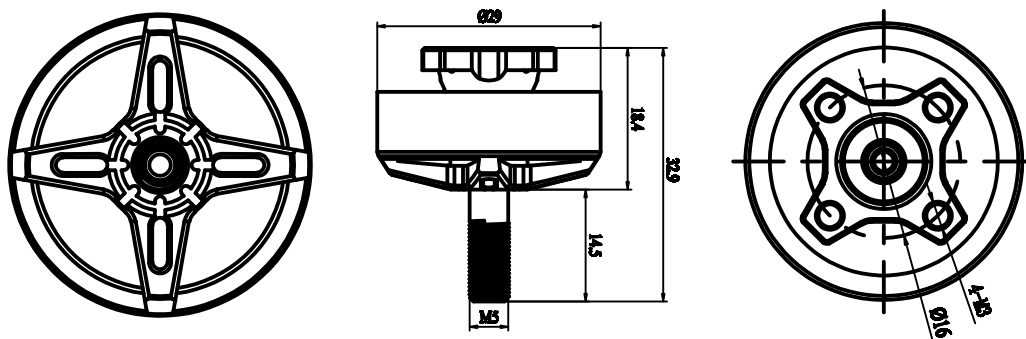
1.0 Frame kit

- Wheel base: 220mm
- Upper plate thickness: 2.0mm
- Frame arm thickness: 5.0mm
- Bottom plate thickness: 3.0mm
- X plate thickness: 1.5mm
- Camera side plate thickness: 1.5mm
- Camera standoffs: M3*28mm 1 PC
- Frame standoffs: M3*20mm 8 PCS



2.0 Motor

- | | |
|-----------------------------|------------------------------|
| Motor KV: 1650 RPM/V | Stator thickness: 6mm |
| Idle current(Io/10V): 1.05A | Motor diameter: 29mm |
| Lipo cell: 3-6S | Motor body length: 18.4mm |
| Weight: 35g | Overall shaft length: 32.9mm |
| Max continuous current: 36A | Prop adapter shaft: M5 |
| Max continuous power: 860W | Bolt holes spacing: 16mm |
| Max thrust: 2350g | Bolt thread: M3 |
| Configu-ration: 12N/14P | Propeller: 5-6 inch |
| Stator diameter: 23mm | |



3.0 ESC

Integrated PDB

Working voltage: 2-6S Lipo

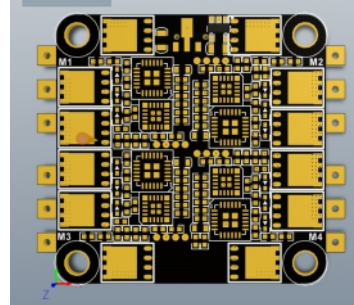
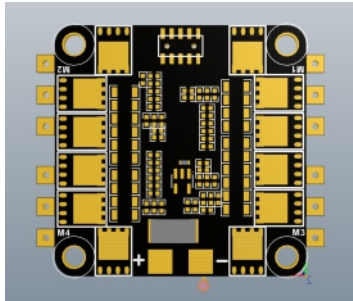
Continuous working current: 4*45A

Peak current: 4*50A (6S)

Main control chip: 48Mhz EFM8BB2

Firmware: BLHeli_S Supports Dshot600

MOS: 5*6



4.0 Flight controller

Main control chip: STM32F405

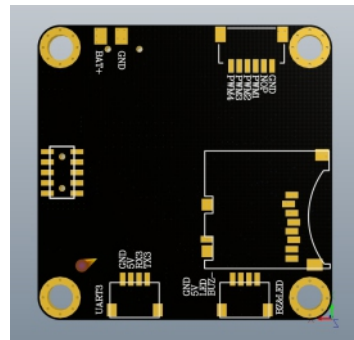
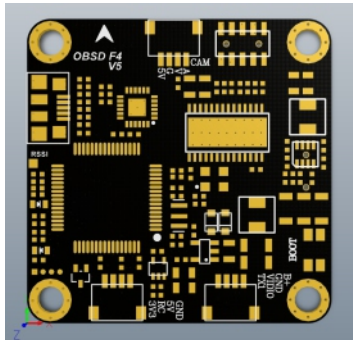
Sensor: MPU6000 6 axes

Power supply: 5V

Integrated OSD

LC filter on board

Supports BetaFlight / inva running firmware



5.0 Antenna

Brand name: Eachine

Item name: antenna

Quantity: 1 PC

Connctor: RP-SMA Male



6.0 Switchable VTX

Output power and transmission distance: $\geq 0.5\text{km}@25\text{mW}$,
 $\geq 1\text{km}$ to 200mW, $\geq 2\text{km}$ to 600mW
 Transmission power: 0mW / 25mW / 200mW / 600mW
 Full video format: NTSC / PAL
 Input voltage and power dissipation: 7V ~ 24V, + 12V /
 260mA @ 600mW
 Size: 36*36*6mm
 Weight: $\leq 7\text{g}$ (excluding antenna)
 With output power self-check function.
 Nixie tube SCAN: frequency point (1-8), frequency band (AE),
 power (1-3, 0=0mw, 1=25mw, 2=200mw, 3=600mw)

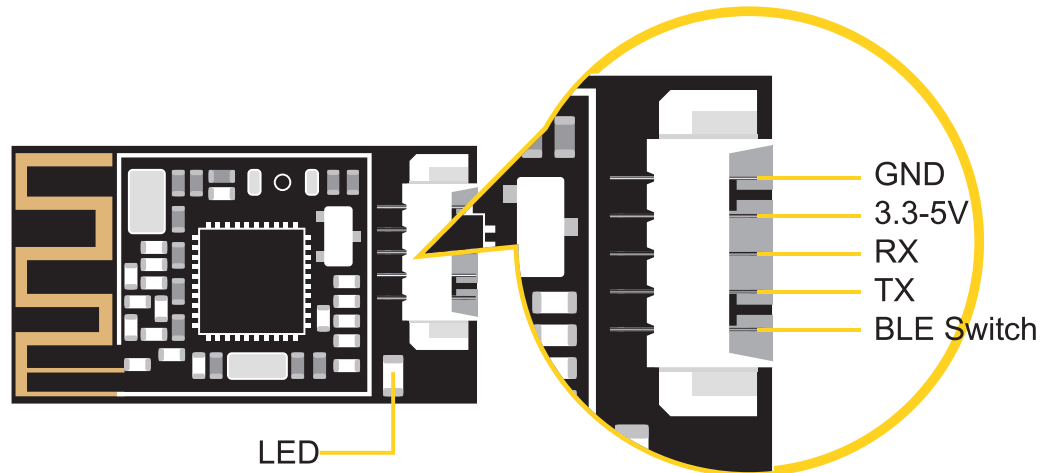
7.0 Camera

Solution: 1/3" Sony SUPER HAD II CCD + Nextchip 2040 DSP
 Pixel: PAL: 976(H)x494(V)
 TV system: PAL
 Resolution: 600TVL(color) 650TVL(B&W)
 Synchronization: internal
 Min.illumination: 0.01Lux
 WDR: support
 OSD programming board: support
 White Dot repair: support
 DNR: 2D DNR
 Camera title: support
 Image adjustment: support
 OSD: Edit name, power, flying time
 Input power: 5-40V
 Storage temperature: $-40^{\circ}\text{C}\sim 60^{\circ}\text{C}$
 Working temperature: $-10^{\circ}\text{C}\sim 50^{\circ}\text{C}$
 Power consumption: 70mA
 Low voltage alarm: support
 Preset mode: DEF, VIVID, SUNNY, CLOUDY, LED TR, USR1
 Size: 21.8x21.8mm
 Weight: 8.7g(excluding bracket)



8.0 SpeedyBee bluetooth module

Support Betaflight configurator
Speedybee App: iOS 10.0+; iPhone 4S, iPad3;
Androd 4.3+
Output power: 0dBm
Sensitivity: -94dBm
External interface: BROADCAST SWITCH, TX, RX,
3-5V DC Input, GND
Transmission speed: Bidirectional 1K/S
Bluetooth protocol: Bluetooth Specification V4.0 BLE
Transmission distance: 30 meters
Frequency range: 2400MHz-2483.5MHz (2.4G ISM
Band)
Baud rate: 2400, 4800, 9600, 14400, 19200(default),
28800, 38400, 57600, 76800, 115200, 230400
Working voltage: 3.3V-5.0V
Working current: 8.3mA-10mA
Weight: 1.4g
Size: 27*15*4.5mm



LED: Blue and constantly on when being connected.
LED does not light means it is not connected.

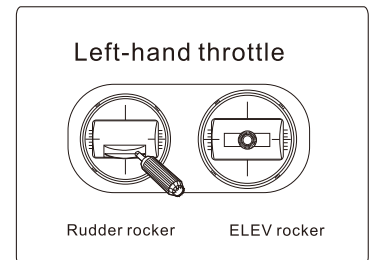
9.0 110DB BB alarm buzzer

Working voltage: 5V
 Standby battery: lipo 4.2V 100mah
 Loudness: 110DB
 Size: 36 * 36mm
 Weight: 8g

10.0 Motor Unlock/lock

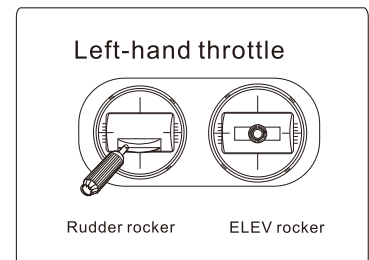
Motor Unlock

Put the throttle rocker at the lowest point, move the rudder rocker to the right and keep it for more than 2 seconds. The blue state indicator is always on, that is unlock the motor.

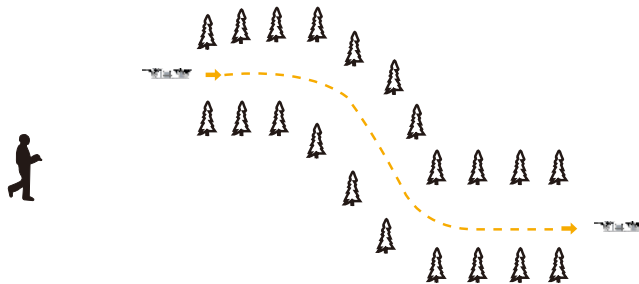


Motor lock

Put the throttle rocker at the lowest point, move the rudder rocker to the leftmost side, and the red state indicator is always turned on to lock the motor. At this time, pushing the throttle rocker motor upward will not rotate.



11.0 Traversing flight



- 1). Flying is more suitable for experienced pilots.
- 2). During the flight, please keep the flight within the video receiving range (the actual range depends on the flight environment and weather conditions).
- 3). During flight, please avoid crowd, animals and High voltage wires and other obstacles