Wizard X220s

QUICK START GUIDE


EACHINE
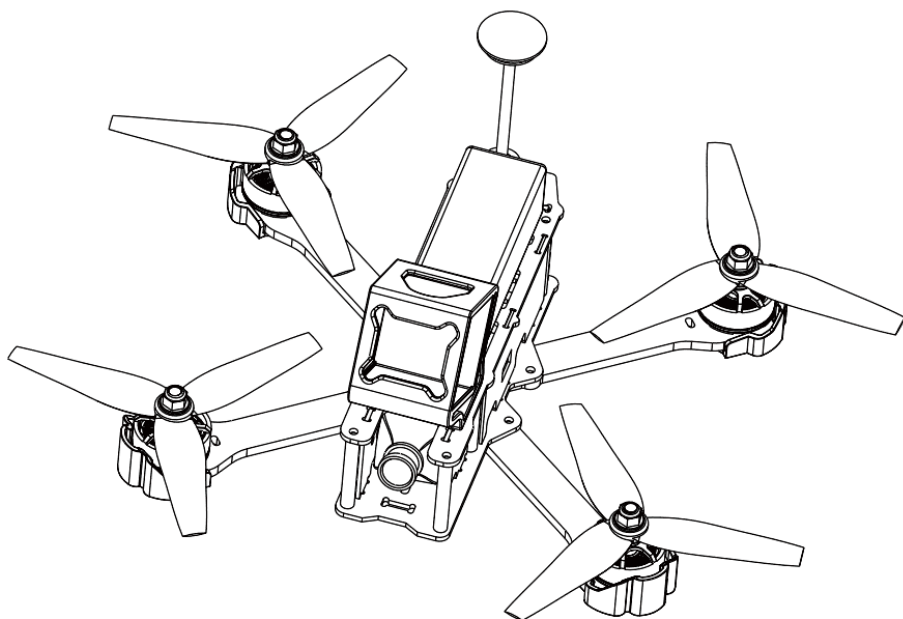
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1.0 Knowing your aircraft

● With its body structure made of carbon fiber composite, it features ultra-high tenacity and good resistance to impact.

● Brand-new industrial and modular designs are employed to improve its expandability, easeofinstallation/maintenance and expandability.

● Equipped with 5. 8G real-time video transmission system and OSD system, it brings about a different visual effect.

● It is capable of presenting forward/backward, right/left rollover and racing as well as other aerobatic flight experience
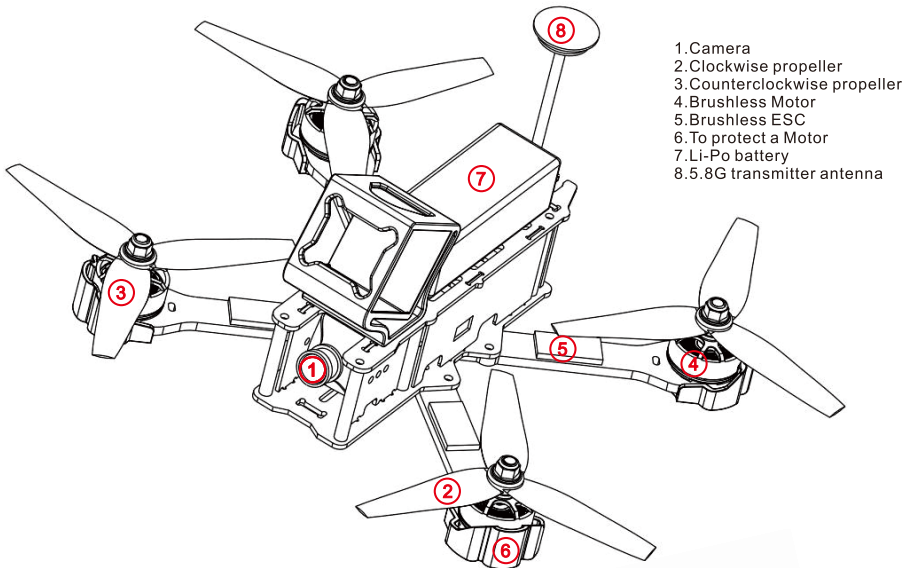
1.Camera
2.Clockwise propeller
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7.Li-Po battery
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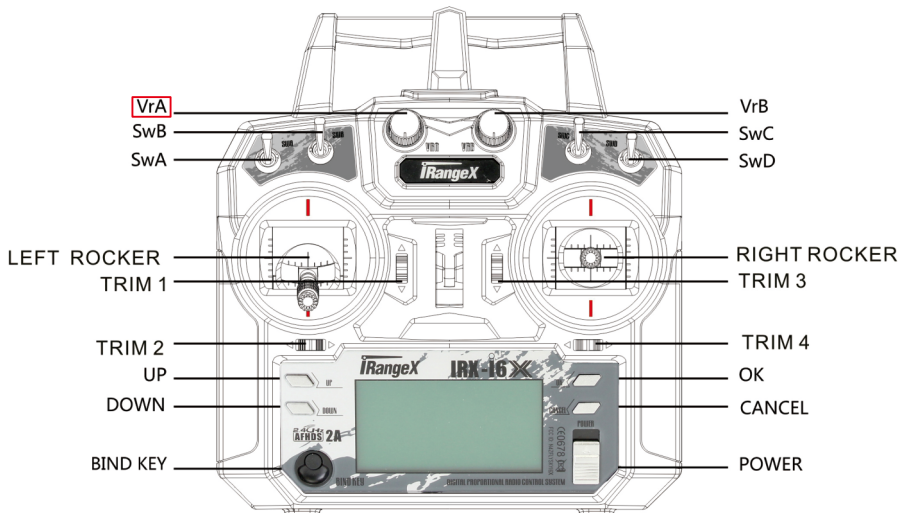10.Upgrade port
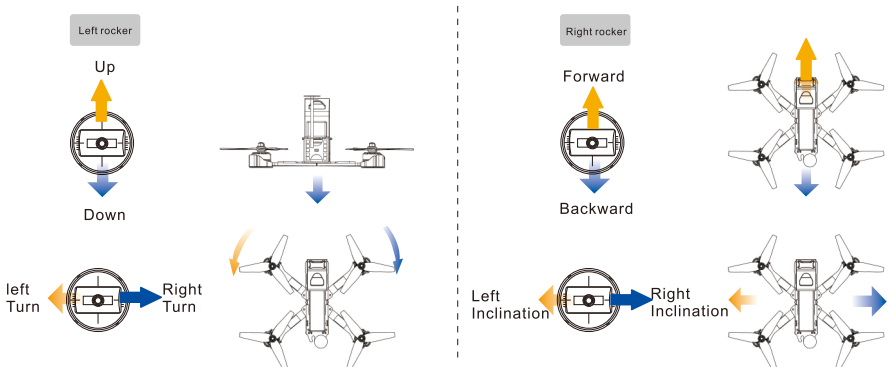11.To protect a Gopro
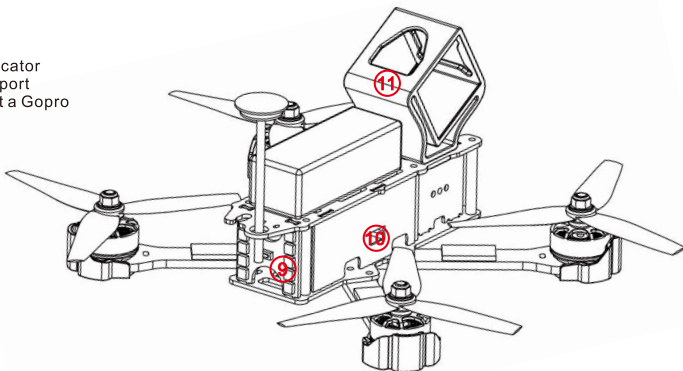
2.0 Knowing your remote controller

Remote controller is equipped with functional switches of primary flight/high-level flight modes, which are easy to operate.（You may select the flight mode suitable with your flying skill）

※ Primary flight mode：the flight control system provided with autostability function can achieve stable operation but not rollover, which is suitable for beginners.

※ High-level flight mode：the flight control system provided with the autostability function can achieve highly flexible operation and rollover.

Primary flight mode	High-level flight mode
VrA counterclockwise rotation	VrA clockwise rotation

VrA   VrB
SwB   SwC
SwA   SwD
LEFT ROCKER   RIGHT ROCKER
TRIM 1   TRIM 3
TRIM 2   TRIM 4
UP   OK
DOWN   CANCEL
BIND KEY   POWER

Take"left-hand throttle" as an example. The left rocker controls the aircraft's altitude and leading,while the right rocker controls its forward, backward, left and right movements.

Left rocker
Up
Down
left Turn Right Turn

Right rocker
Forward
Backward
Left Inclination Right Inclination

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3.0 Specification

Item	Specification
Eachine Wizard X220S	Wheelbase: 220mm Frame arm: 4mm light material Weigh: 356g (without battery and camera mount) Take off weigh: 561g Package weigh: 1728g Use light composite material. 4mm thickness and 15mm width frame arms, the width is 10mm less than Eachine Wizard X220. Frame kit with camera angle scale and 30° camera mount for Runcam 3 Gopro session. Anti-vibration sponges to protect the racer frome crashing.
Eachine MN2206 2300KV motor	KV: 2300 Max thrust: 1100G Length: 35MM NO.OF cell: 3-5S Diameter: 28MM Framework: 12N14P Shaft: 3MM Propeller: 5 inch Weight: 28g
Eachine 30A BLHELI_S 4 in 1 ESC	Con. current: 30A Peak current (10S): 35A Input voltage: 2-5S BEC: No Programming: YES Firmware: blheli_s Weight: 28g Size: 36*36MM
Eachine 1179 800TVL CCD camera	Color: purple Sensor: CCD Resolution(horizontal center): 800TVL Shell size: 25mm*25mm Weight: 11g Resolution: PAL: 1980H×1080 (2MP) NTSC: 1980H×1080V (2MP) Format: PAL/NTSC switchable Video output: 1.0Vp-p/75Ω Automatic gain control: 0.25/0.50/0.75/1.00 adjustable, up to 55dB. AWB: ON/OFF Exposure mode: electron exposure Electronic shutter: 1/50(1/60) - 1/100000 S Gamma correction: 0.45/1.0 Synchronization method: internal synchronization Lens: standard 2.8mm lens Working voltage: DC12V (Wide Voltage, measured that can be work in 5-13V) Workig current: 70mA (low power consumption) Workig temperature: -20℃--60℃ Humidity: 0%~98% Strong backlighting effect

5.8G 72CH 25MW 200mw 600MW switchable transmitter

Video Format : NTSC/PAL
Channel: 72CH
Operating Temperature : -10~85℃
Connector: SMA Female (Inner hole)
Antenna Connector: SMA male (Inner needle)

| Band	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
Band-A	5865	5845	5825	5805	5785	5765	5745	5725
Band-b	5733	5752	5771	5790	5809	5828	5847	5866
Band-E	5705	5685	5665	5645	5885	5905	5925	5945
Band-F	5740	5760	5780	5800	5820	5840	5860	5880
Band-r	5658	5695	5732	5769	5806	5843	5880	5917
Band-U	5325	5348	5366	5384	5402	5420	5438	5456
Band-o	5474	5492	5510	5528	5546	5564	5582	5600
Band-L	5333	5373	5413	5453	5493	5533	5573	5613
Band-H	5653	5693	5733	5773	5813	5853	5893	5933

3.0 Specification

Omnibus F4 V3 flight controller	Size: 36x36mm Mount holes: 30.5x30.5mm STM32 F405 MCU, Runs Betaflight 3.0.1 firmware, could run faster loop time. Using F4 MCU controls OSD over SPI bus in DMA mode. OSD Configation has been included in Betaflight GUI. SBUS/PPM input (Pinheaders) 6PWM output (1-4Pinheaders and Sh1.0 Plug, 5-6 as Pinheaders) NO BARO SPI Sensor MPU6000 Included 128Mbit Flash, please always use BEC for the FC. Supported by BETAFLIGHT and dRonin
iRangeX iRX-i6X 2.4GHz 10CH remote control	Channel: 6-10 (Default 6) Model Type: Fixed-Wing/Glider/Helicopter RF Range: 2.408-2.475GHz RF Power: < 20dBm RF Channel: 135 Bandwidth: 500KHz 2.4GHz System: AFHDS 2A / AFDHS Modulation Type: GFSK Stick Resolution 4096 Low Voltage Warning: < 4.2V DSC port: PS/2 Port PPM Chargeable: No Antenna Length: 26mm (Dual Antenna) Weight: 392g Power: 6V DC 1.5AA*4 Display: STNTransflective Display, LCD 128x64 Lattice, VA 73x39mm, LCD with white backlight Size: 174x89x190mm On-line Update: Yes Color: Black Certificate: CE0678, FCC ID: N4ZFLYSKYI6X
iRangeX iR-A8S receiver	Channels: PPM 8CH Model type: Multi-rotor Frequency range: 2.408-2.475GHz Band width: 500KHz Band number: 135 RX Sensitivity: -92 dBm 2.4GHz system: AFHDS 2A Modulation type: GFSK DSC port: PPM Transfer method: FHSS Data output: 1.5mm*3 Pin PPM Antenna length: 26mm (Not including brass contacts) Input power supply: 4.0-8.4V Display method: LED No ground interference (Transmitting and receiving 1 m from the ground): >300m Working current: 40mA Each channel data: depend on the transmitter Channel delay: <15mS Size: 20*14*5.3mm Weight: 1.2g Certificate: CE0678, FCCID: N45ZA8S00
1500mAH 4S 14.8V 75C battery	Capacity(mAh) : 1500 Cells (s): 4 Weight (g): 177 Length(mm): 80

4.0 Motor Unlock/Lock

Motor Unlock

Place the throttle lever at the lowest point, set the rudder rocker to the right and hold for more than two seconds, the red state indicator turns blue and the buzzer gives the "BB" sound to unlock the motor.

Right-hand throttle   Left-hand throttle

Rudder rocker   Throttle rocker   Rudder rocker   ELEV rocker
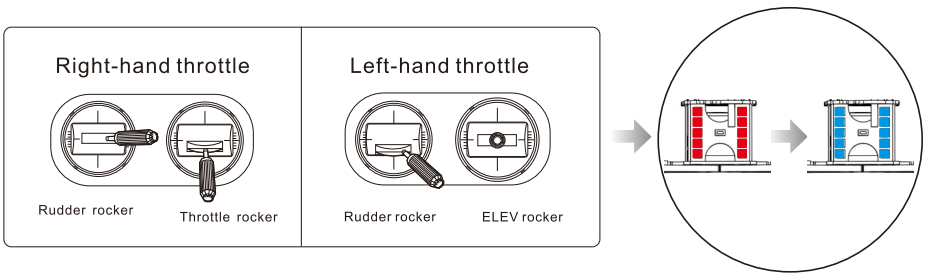
Motor Lock

Put the throttle rocker at bottom and the rudder a handle to the left and status indicator light blue to red and "BB" from the buzzer sound when the lock for motor, the push up the throttle rocker motor won't turn.

Right-hand throttle   Left-hand throttle

Rudder rocker   Throttle rocker   Rudder rocker   ELEV rocker
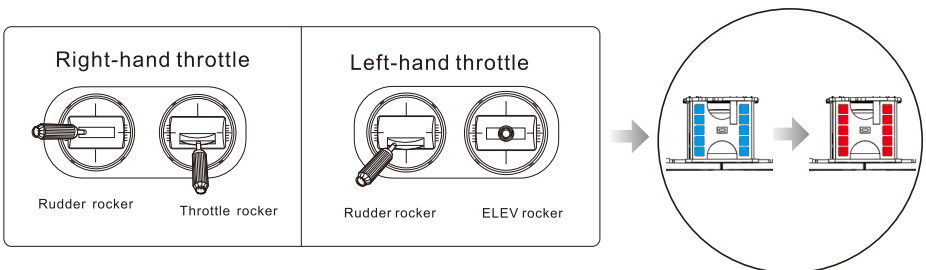
5.0 Notes for flight

1) It is intended for pilots aged 14 or above with model hobby experience.

2) Only fly it in dry weather with low wind, please do not fly in rain, snow or heavy foggy conditions.

3) An open fleld lawfully permitted must be selected for flying in line with your mental condition and flying skill.

4) Always keep a certain distance from aircraft and keep it from high-speed rotating parts, such as propellers or brushless motors.

5) Do not fly around high-voltage power lines, cellphone basestation or radio towers, as they are likely to interrupt your communication.

6) Always check local laws before flying, never fly an illegal flight

6.0   charging

①Plwer adapter is connected to mains power（100～240V 50/60HZ）, When its output terminal is connected to charger, the charger;s green LED light flashes.

②Plug the charging terminal of battery into charger.

③Red LED light remains on during battery charging , and green LED light remains on when charging is completed.