QR X350 PRO
GPS altitude hold system

walkera

Quick Start Guide and Systems Flowchart

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① Install the Landing gear

1.1 Prepare quadcopter landing gear and 4 screws.

1.2 Install the right skid, carefully pull the cables and the antenna throu the holes in the landing gear.

1.3 Secure the landing gear with 2 screws, tighten firmly with your fingers, do not use tools.

1.4 Install the left skid, carefully pull the cable throu the hole in the landing gear.

1.5 Secure the landing gear with 2 screws, tighten firmly with your fingers, do not use tools.

1.6 Connect compass.

1.7 Secure the cable by pushing it under the "clip" on the compass mounting part.

1.8 Secure the cable into the hollow part of the leg with one of the supplied foam tape strips.

1.9 Congratulations, you have installed the landing gear next let's install the propellers.
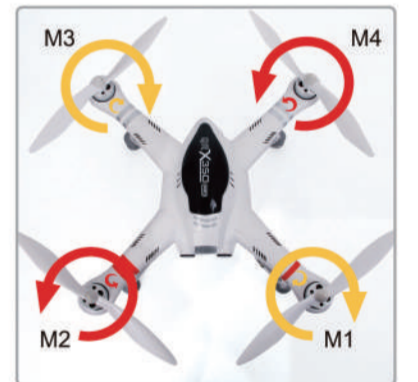
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② Install the Propellers

2.1 Prepare 4 propellers and the rounded "nuts" , these are called "Spinners".

2.2 Match the concave part on the propeller to the concave part on the brushless motor. Match the arrow on the arm to the arrow on the propellers. Double check, this is important.

2.3 Screw the "spinner" on Then tighten using one of the allen wrenches in the kit.

2.4 DONE, the prop arrows should now match this illustration, please check.

M3   M4
M2   M1

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③ Install the G-2D Brushless Gimble

NOTE: The G-2D gimble is a lightweight gimble, it is a delicate high-performance gimble, ALWAYS handle it by the base, stressing the arms may dammage the bearings and affect the performance of the gimble.
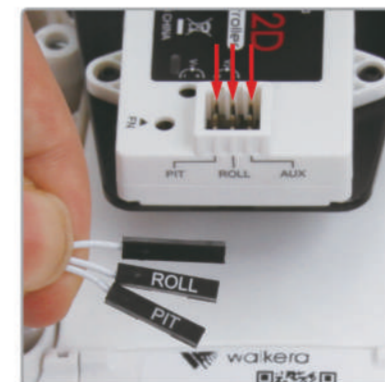
3.1 Prepare the G-2D gimble.

3.2 Slide the gimble onto the mounting track, push on the base until it is all the way back.

3.3 Done, the gimble is installed.

3.4 Insert the signal wires, match the text on the wire to the text on the controller, the wire go on the back pin away from the edge.

3.5 Gimble install is finished. The wires should now match the illustration.

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④ Install the iLook digital camera
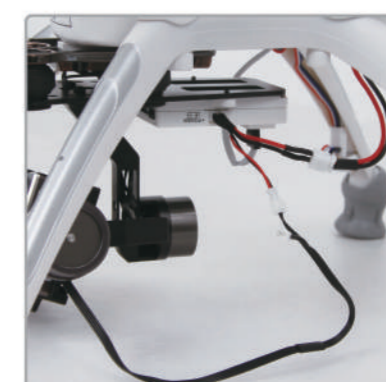
4.1 Prepare the iLook camera

4.2 Secure the camera with the mounting bracket, the bracket have a rounded cut for the lens.

4.3 Plug the camera cable into the gimble controller.

4.4 Connect the camera cable to the power wire from the QR X350PRO quad.

4.5 Wiring is done, make sure the camera cable is free so the camera can move freely.

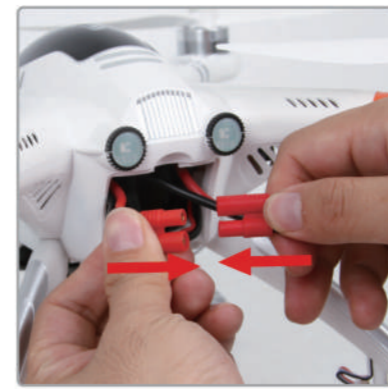4.6 Congratulations, you have successfully assembled your QR X350PRO.

5 Code binding

5.1 Connect the battery to the radio. For safety: Make sure the battery is fully charged before you fly!

5.2 Move the MIX and FMOD switches to "0" position. Move the throttle to the down position. Then turn on the radio.

5.3 Connect the battery to the quad. Before powering the quad, make sure the quad is level and sitting stable on the ground, do not move the quad until the binding is finished.

Left green LED light

5.4 When the LEFT indicator light stop flashing, the binding is successful.

6 Compass Calibration

IMPORTANT: Make sure the motors are locked before calibration (left indicator is NOT flashing). Factory default setting, is for the motors to be locked after the completed ID binding process. (For details on motor lock and unlock process see point 7 and 8)
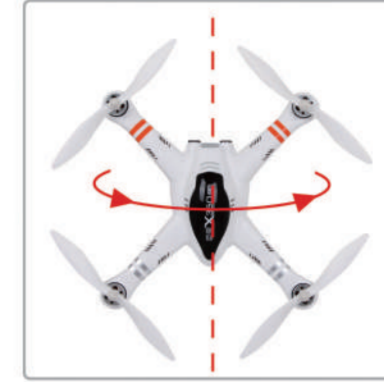

6.1 Enter compass calibration
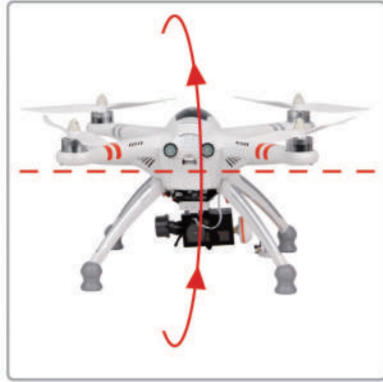
6.2 Forward& backward 360° rotation (Rotate the aircraft, from 0° to 90°, 180°, 270°, 360°, all need to pause for 1 second.)

6.3 Leftward & rightward 360° rotation (Rotate the aircraft, from 0° to 90°, 180°, 270°, 360°, all need to pause for 1 second.)

6.4 Horizon level 360° rotation (Rotate the aircraft, from 0° to 90°, 180°, 270°, 360°, all need to pause for 1 second.)

6.5 Vertical direction (Head down) rotation 360°(Rotate the aircraft, from 0° to 90°, 180°, 270°, 360°, all need to pause for 1 second.)

Left green LED light

6.6 The left green LED flash quickly till light out which means calibration finished. Please reconnect the aircraft power after calibration.

● Attention:

After calibration, first time taking off, the aircraft may drift in the sky, please just ignore that, and meantime the system will do compass calibration automatically. After 3-5 minutes flight, please land the quadcopter on the ground and hold the motor in order to save calibration parameter.

7 Motor Unlock

After Binding, move the throttle stick to the lowest position, at the same time move the rudder stick to the far left side. The left green LED indicator light will turn solid green, this indicate that the motors are unlocked.
TEST: gently push the throttle up a little, the motors will spin.
NOTICE:
The MIX switch much be in Manual to unlock the motors. It is mot possible to unlock the motors in GPS or RTH mode.
Note:
For safety, the motors will automatically lock after 10 seconds. This means, if you do not start flying in 10 seconds, you have to unlock the motors again.

Mode 1(throttle stick on the right)   Mode 2(throttle stick on the left)

Left green LED solid

8 Motor Lock

To Lock the motors.
Move the throttle stick to the lowest position, and move the rudder stick to the far right. The left green LED indicator light will go out when the motors are locked.
TEST: if you gently push up on the throttle, the motors will not start.

NOTICE:
By default. After successful binding, the motors is locked.

Mode 1(throttle stick on the right)   Mode 2(throttle stick on the left)

Left green LED light out

9 DEVO 10/F7 panel illustration

Mode 2 (Throttle stick on the left)	Left stick	THRO/RUDD stick
	Right stick	ELEV/AILE stick
	Left trim	THRO trim
	Right trim	ELEV trim
Mode 1 (Throttle stick on the right)	Left stick	ELEV/RUDD stick
	Right stick	THRO/AILE stick
	Left trim	ELEV trim
	Right trim	THRO trim

(1) Manual Mode — MIX Switch to "0"
(2) Position Hold Mode — MIX Switch to "1"
(3) One Key Go Home — MIX Switch to "2"

AUX4(Control Gimble, Tilt)
GEAR(When user-defined video, control video)
Left trim
Left stick
Power switch
RUDD trim

AUX5(Control Gimble, Roll)
MIX(Control Mode Switch)
FMOD(IOC Switch)
Right trim
Right stick
AILE trim

FMOD Switch to "0" or "1": IOC close
FMOD Switch to "2": IOC Active

DEVO 10 radio

AUX2(Control Gimble, Tilt)
GEAR(When user-defined video, control video)
Left trim
Left stick
Power switch
RUDD trim

FMOD(IOC Switch)
MIX(Control Mode Switch)
Right stick
Right trim
AILE trim

DEVO F7 radio

10 Manual flight control

Transmitter	Aircraft (⬅is the nose direction)	Manual/ GPS Mode
Mode 1 Mode 2		**Throttle stick:** Controls the LIFT, of the aircraft. Moving this stick up cause the aircraft climb (or move up) the more you push on the stick, the faster the aircraft climbs. The aircraft will hover still in the air with the throttle stick at the center position (50%) pushing up from 50% cause climb, moving the stick below 50% cause the quad to move down.
Mode 1/Mode 2		**Rudder stick:** Controls the "YAW" axis = right-left turn. Push the stick right for clickwise turn, push the stick left for counter clockwise turn.
Mode 1 Mode 2		**Elevator stick:** Controls the "PITCH" axis = forward and backward motion of the aircraft. Push the elevator stick up to move forwards, push the elevator down to move backwards. * For typical forward flight, push the elevator slightly forward to move forward.
Mode 1/Mode 2		**Aileron stick:** Controls the "ROLL" axis = sideway motion. Move the stick left for the quad to move left, move the stick right for the quad to move right.

11 GPS indicator lights. (Understand the mystical blinking of the right indicator light)

GPS Satellites	<6	6	7	8	9	10	11	12	13
The right Green LED status	No blinking	Blinking once	Blinking 2 times	Blinking 3 times	Blinking 4 times	Blinking 5 times	Blinking 6 times	Blinking 7 times	Blinking 8 times

IMPORTANT: For GPS flight mode, the RIGHT indicator light should be blinking 2 or more times, (indicating 7 or more satelites locked.)
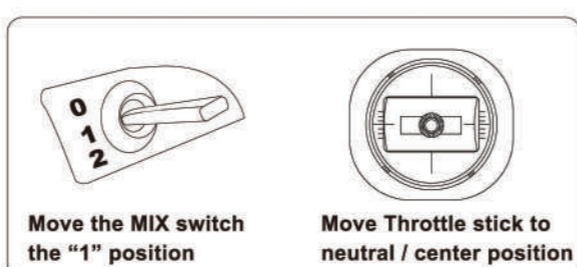
12 Position Hold

● **REQUIREMENT:** SOLID GPS lock
GPS indicator should be blinking 2 times or more.

● **REQUIREMENT:** IMU must be calibrated, the throttle, elevator, aileron and rudder trim should be at neutral positions.

● Engage Position Hold while flying, in manual mode, move the MIX to "1" position, (do not move other stick), this will cause the QR X350PRO to enter position hold mode.
Keep the throttle stick at the neutral positing while in GPS hold mode.

If GPS signal is lost the aircraft will enter altitude hold mode.

Move the MIX switch the "1" position

Move Throttle stick to neutral / center position

13 One Key Go Home

● **REQUIREMENT:** SOLID GPS lock
GPS indicator should be blinking 2 times or more.

● **REQUIREMENT:** IMU must be calibrated, the throttle, elevator, aileron and rudder trim should be at neutral positions.

● One Key Return To Home (RTH)

While flying in manual mode, or in GPS position hold mode. Engage RTH mode by moving the MIX switch to the "2" position (don't move any other sticks)

IMPORTANT:
While in RTH mode, keep the throttle stick in the neutral position. The quad will land itself.

NOTE: you can resume control anytime by moving the MIX switch back to the "0" position.
IF you do so, make sure all stick are neutral, and that power is in the neutral (middle) position.

Move the MIX switch the "2" position

Move Throttle stick to neutral / center position