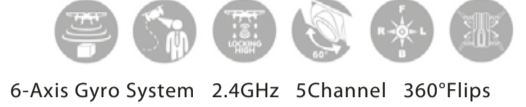# INSTRUCTION MANUAL

AGES 14+

FPV HD CAMERA DRONE
Image - Optical Flow Positioning Version

6-Axis Gyro System   2.4GHz   5Channel   360°Flips

Please read the Instruction Manual carefully before using.
Please keep it for your further reference.
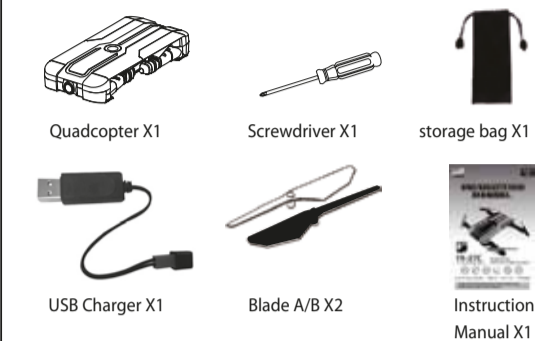
Matters Needing Attention

1.This product could be indoor or outdoor (wind force is less than Beaufort force 4). In order to avoid crashing or damage, please fly this product in barrier-free environment.

2. This product is equipped with precision electronic parts. To ensure optimum performance, maintain dryness and keep away from moisture, flame or strong light.

3.To ensure safety, do not use other li-poly batteries. Different battery may have different electronic parts and setting.

4.To ensure safety and avoid short circuit, battery swell and deformation, even explosion, do not use other A/C adaptor for charging.

5.Please ensure quadcopter's battery is full, all blades are tight and no damage during your preflight.

6.Do not fly in the no fly zone according to your local law and regulations. Keep away from obstacles and crowd.

7.To ensure this product is structurally safe, do not disassemble the unit or assembled optionally. Any refitted or repair must use the included spare parts.

8.To ensure flight safety, fly in open ground, keep a safe distance and do not touch any part of quadcopter during flight.

9.Read this instruction manual carefully before flight.

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1. FUNCTIONS INTRODUCTION

❶ Optical Flow Positioning Version
Use the built-in camera to track the move of image's light spots and dark spots, then calculate out the point's move distance relative to quadcopters speed and lock quadcopter's position. In short, optical flow positioning system helps quadcopter's auto setting height with more precise.

❷ Image recognition
Use image tracking algorithm, can fast scan, recognize and remember the facial features of the image, and follow the motion of the video object.

❸ Target Tracking
Target Tracking technology, allow the body and object in the state of motion can be followed and shooting.

2. PARTS LIST

Quadcopter X1   Screwdriver X1   storage bag X1
USB Charger X1   Blade A/B X2   Instruction Manual X1

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3. PRE-FLIGHT CHECKING LIST

3.1 Li-poly battery charging

1. Through the opening switch director arrow of battery cover pull to right side that to open the battery cover.
2. pick up the shake handshandle cover of battery box.
3. Pull up the shake handshandle cover and take out battery box.

4. connect input of battery box to output of USB cable and connect USB cable's input side to computer output side or other chargers which with USB port.

• USB cable's red indicator lights on means battery is charging, light off means battery was fully charged. Charging time is about 120-150 mins. Fly time is about 8 mins.

• Long time no use this product, please ensure battery with 50% power to keep battery life.
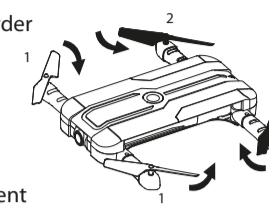To keep battery with 50% power, charge it 60-75 mins.

3.2 Download Software

Use smart phone to scan the QR code for download the software, "HK Drone".

Google Android   360 Android   iOS

3.3 Drone Arms Folding Order

Fold the forearms near camera first then back arms. To open arms, pull them in opposite direction.

3.4 Camera angle adjustment

This product support angle 30°～90° of all selfie requirements within the range, push the camera to the desired angle to help you find the more beautiful you
⊠When the "Target Tracking" function is required, push the camera to the minimum position, and the maximum limit trace is top to the bottom shell (as shown below).
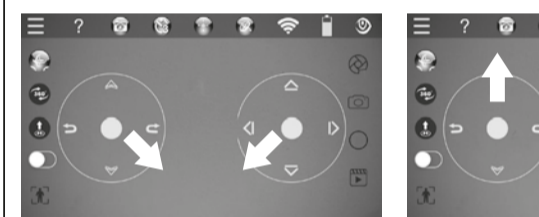
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4. START UP AND SHUT DOWN

4.1 Start Up

1. after full of charge, pull the battery box into battery groove with opposite direction in opening switch director and lock the cover.

2. Press the aircraft's power switch with 2 seconds, the light at the top of the aircraft will lit up, and the two red LED lights at the bottom are flashing into a regular light.

3. Go to the setting button in your smartphone, open Wi-Fi, lock into the "HK Drone xxxxxx".

4. Click to link till you see "Linked", means paired.

A: Go to settings
B: Open Wi-Fi
C: Connect "HK Drone xxxxxx"

5. Open the downloaded APP "HK Drone", click the icon enter control menu and smartphone with real-time image

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4.2 Shut Down Step

• To keep pulling the accelerator joystick to lowest position, drone will land and blades stop rotation.

• Or click " " button, drone also land and blades stop rotation.

• Or landing drone to your hand, catch drone's bottom and turn it 180°, drone also could be emergency stop.

6. Click " " button into gyroscope calibration. Drone's four LED change from flashing to keep light on.
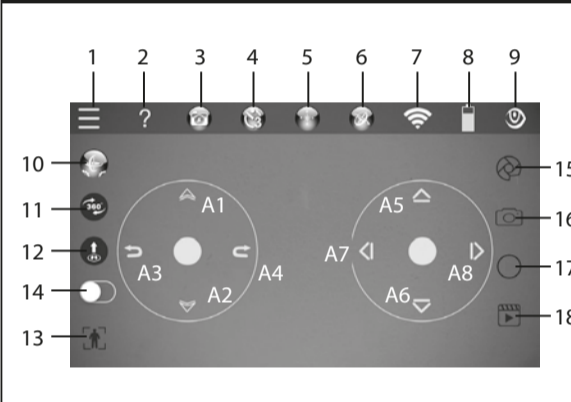
7. Click " " button, drone fly up automatic and hover at a height. Or pull both left and right joysticks to inside corner, then release them, drone's blades start rotating in low speed. When push the accelerator joystick, fly drone upper, after release the joystick, drone hover at this position.

5. APP MENU INTRODUCTION

1 2 3 4 5 6 7 8 9
10 11 12 14 13   A1 A3 A2 A4 A5 A7 A6 A8   15 16 17 18

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(1). Settings

Click " " settings icon, appear below setting options

setting	
Camera mute	
Operate mode	left hand
Resolution	VGA
Fireware update	>

• Camera mute: open this option, in the main operating interface to take pictures, video, selfie and so on are mute.
• Operation mode: left and right hand operation mode switching
• Resolution :click the right arrow.

Resolution
VGA
720P
cancel

Select the required video transmission resolution.

• Software upgrade: click on the software upgrade options, open the following menu, you can update this APP software.

< setting

download APP

In the upgrade process, do not jump page to switch APP, please wait for the upgrade to complete.

(2). The operation instructions
Click on " ? " the operation description icon to view the entire APP corresponding icon function.

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(3). The selfie
before selfie need to make sure the aircraft must back for operator aircraft back side toward operator ⊠ then click on the selfie, the aircraft will automatically rotate 180° face to operator. Then it takes three images at the same time.

(4). Delay photo
Click on the delay photo button, the aircraft will start the delay 3 seconds photo, that is, camera lock catch target, 3 seconds after it takes official photo.

(5). Headless Mode

• Start and settings: After drone finish signal pairing, no matter drone land on the ground or hovering in the sky, just need to keep drone's front (camera position is front) same as smartphone's operation interface, then press " " button to enter headless mode. The LED lights at the bottom of drone will light on and keep flashing.

Orienting

In headless mode, with diagonal LED indicators' flashing, no matter which direction the head (same side as camera) faces to, now the smartphone's front is drone's backside. Pull down the direction rod and quadcopter will fly back, push it up and quadcopter will fly farther.

• Exit Headless Mode: Press " " button again to exit headless mode. After exit headless mode, Drone's LED indicators keep light on.

(6). Gravity sensor control mode
Click " " button, smartphone's screen was switched to Gravity Sensor Mode. In gravity sensor mode, swing the phone to control drone's direction and flight.

Operation   Turning

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(7). Signal intensity display

(8). Aircraft power display

(9). Joystick display / concealment

(10). The gyro calibration
• To carry out the gyro calibration before taking off, make sure that the aircraft is hovering smoothly after takeoff.
• When the aircraft encountered collision or crashing, also use this method to correct the gyroscope.

(11). 360° Flips
• Left flip
Click " " button and pull the right rod to left, drone will flip 360° to left.

• Right flip
Click " " button and pull the right rod to right, drone will flip 360° to right.

**Low power alarm when four LED lights flashing on the aircraft, indicating that the aircraft's power has been exhausted, the aircraft will automatically turn off the rolling function

(12). One key take off / One key landing
• When aircraft did not take off, interface show " " one key take off icon.
• When aircraft hovering, interface show " " one key landing icon.

(13). Tracking statu
• Clicks the " " icon, the tracking status icon turns red, and the yellow box dump out in the middle of the screen.

⊠To select the capture target in the inside box, after the capture target box is selected, the green box flashes in the middle of the screen. The capture target will be tracked at all times.

(14). Open Tracking Mode
• Open start tracking the icon, when the joystick is again in the middle of the screen, the green box flashes, and the target is tracked at all times.

• Before tracking your target, drone need keep higher than target about 50-100cm
• When the target moves / backward / turn left / turn right and so on, the aircraft captures the tracking target, and moves forward / backward / left / right and so on as it.
• When the aircraft is tracking and capturing the target, a coming obstacles,can adjust the direction of the aircraft through the joystick to avoid impact it.
• A when the joystick adjusts the direction of the drone, the drone shuts down to tracking, if it is necessary to continue tracking, it needs to capture the target again.

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(15). Take photo setting
1. Click " " take photo icon, appears below setting options.

one
number >

< number
2
3
4
5

2. Click the page option, shown below options as image.
3. Finally click the required photo number of multiple shots.

(16). Take Photo
Click " " take photo icon, aircraft takes photo as the setting required number.
By default, one picture is taken, and the number of pages can be selected for multiple shots when you need.

(17). Take Video
Click " " take video icon, for taking video at that time recording icon change to " " the Ends icon. Click the Ends icon to stop taking video.

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(18). View view
Click " " view view icon, appear below page:

< photo video   select

Photos, videos can be viewed as needed.

• A1/A2: Ascend/Descend
Pull left rod up or down, drone fly up or down.

Ascend
Descend

• A3/A4: Turn Left/Turn Right
Pull left rod to left or right, drone turn left or right.

Turn Right
Turn Left

• A5/A6: Forward/Backward
Pull right rod to up or down, drone fly forward or backward.

Forward   Backward

• A7/A8: Left/Right sideward fly
Pull right rod to left or right, drone fly to left side or right side.

Left sideward fly   Right sideward fly

6. INSTALL BLADES

When drone's blade damage after crashing, please change it with the included spare parts.

A   B
B   A

The blades shall be installed to designated location. Blade's number should be same as the number one on drone. Or drone may not fly up.

Install blades: Hold the blade's central location to aim at the motor shaft and press down to lock. Be careful do not damage or deform the blades.

7. TROUBELE SHOOTING

Problem	Reason	Solution
The quadcopter did not respond	1. Signal matching failed.	1. Re-matching again.
	2. Quadcopter or transmitter low voltage.	2. Fully charge battery or replace the transmitter batteries.
The quadcopter shake	Blade impact deformation	Righting blades or replacing blades.
Failed flips	1. Improper operation	1. Checking the instruction manual again.
	2. Quadcopter low power.	2. Fully charged the battery.
The quadcopter response delay	Over control distance.	Do not fly over of 30 meters.

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