



3.1 Flight Functions >>

Return to Home(RTH)

- The Return to Home function brings the drone back to the recorded Home Point. This function can only be triggered when the drone is in GPS mode.
- The drone's default home point is the location where it first receives a strong GPS signal (this is indicated when the satellite connection count displayed on the LCD screen is '7' or higher). The drone will record its takeoff position at that moment as the home point. During flight, if the drone lands at a new location, the position of the next takeoff will become the newly recorded home point.

* RA: the Return Altitude set in the app setting. (The default RA is 49 ft.)

1 Smart RTH :

When the GPS signal is strong (satellite connections ≥ 7), press the  button. The transmitter will produce a prolonged beep, indicating that the Smart RTH is activated. The drone will start flying back to the Home Point automatically. During the RTH procedure, if the pilot presses the  button again, the drone will exit the RTH procedure immediately.

2 Failsafe RTH :

The Failsafe RTH will be activated when:

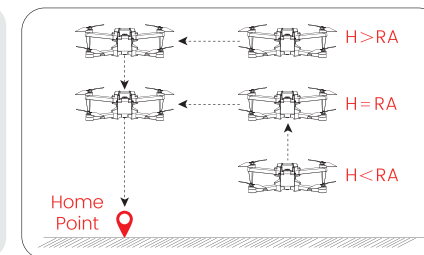
1. The drone receives a strong GPS signal (satellite connections ≥ 7); and
2. There is a pre-recorded Home Point; and
3. The connection between the transmitter and the drone is lost for more than 6 seconds.
4. The compass receives no interference.

Once the Failsafe RTH is activated, the transmitter keeps beeping, the drone will start to fly back to the pre-recorded Home Point automatically. If the connection between the drone and the transmitter is re-established during the Failsafe RTH procedure, the drone will stop flying back to the Home Point, and the pilot will regain control of the drone.

 The following are 2 possible returning procedures for Smart RTH and Failsafe RTH

a Flight altitude \geq RA: When the drone's current altitude is higher than or equal to RA, the drone will maintain its current altitude, fly back above the Home Point, then descend to the ground.

b Flight altitude $<$ RA: When the drone's current altitude is lower than RA, the drone will first ascend to RA, fly back above the Home Point, then descend to the ground.




3.1 Flight Functions >>

Return to Home(RTH)

3 Low Voltage RTH :



When the flight battery is too low or there is not enough power to return home, the user should land the drone as soon as possible to avoid damage to the drone or other hazards.


To prevent unnecessary risks due to insufficient battery power, the low voltage return-to-home (RTH) function will be automatically triggered when the drone battery is low. According to the remaining power, there are two scenarios:

The First Stage of Low Voltage RTH () : The drone will return and hover at 49ft above the Home Point. While the drone is returning, the transmitter will produce short beeps. The LCD screen displays "  " .

After the drone returns, you will be restricted to flying it within a 'safety zone,' which is centered around the Home Point and has a radius of 164 ft and a height of 98 ft. The drone will not be able to exit this zone.

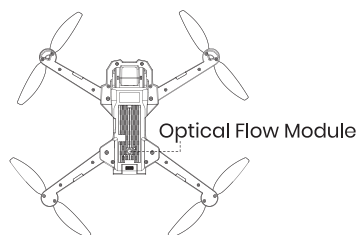
*** If the flight distance is within 16 ft, the drone does not execute the return.**

The Second Stage of Low Voltage RTH () : The drone will automatically return to the Home Point. While the drone is returning, the transmitter will produce prolonged beeps. The LCD screen displays "  " .

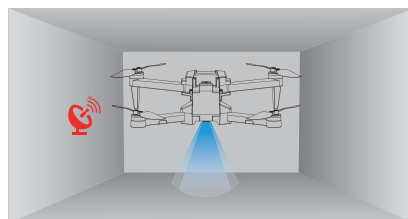
-  · During the RTH procedure, the drone can NOT avoid obstacles.
- If the GPS signal is weak or unavailable, the RTH cannot be activated.

3.2 Stabilization Functions >>

Optical Flow Positioning



The Optical Flow Positioning System consists of a camera module, which acquires the position information of the drone through visual images to ensure precise positioning of the drone.



The Optical Flow Positioning System is typically used in an indoor environment when the GPS signal is weak or unavailable. The optimal usage height for Optical Flow Mode is **1.6–9.8 ft**.



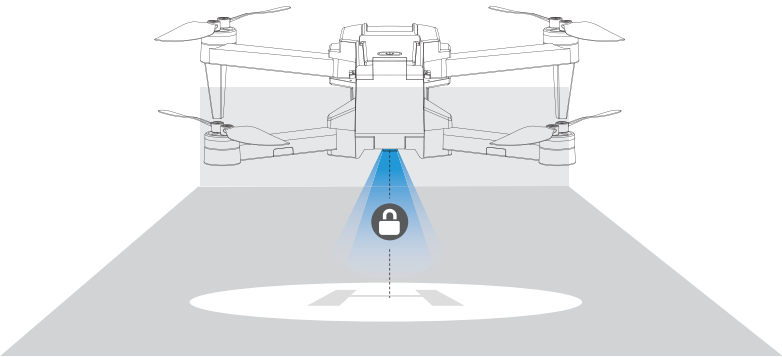
- The precision of the Optical Flow Positioning System is easily affected by the light intensity and features of the surface textures. Once the image sensor is not available, your drone will switch on the altitude-hold function automatically. Please exercise utmost caution when operating the drone under these circumstances:

- Fly over surfaces without clear patterns or textures.
- Fly over extremely dark or bright surfaces.
- Fly in an area where the lighting changes dramatically and frequently.
- Fly over moving surfaces or objects. (e.g., above crowds, above bushes or grasses swayed by strong winds).
- Fly over water or transparent surfaces.
- Fly over highly light reflective surfaces. (e.g., mirrors).
- Fly over monochrome surfaces (e.g. pure black, red, or green).
- Flying over surfaces with repeating identical patterns or textures (e.g., tiles with the same design).
- Flying speed should be controlled not to be too fast.
- Keep sensors clean at all times.
- DO NOT scratch or tamper with the sensors. DO NOT use the aircraft in dusty or humid environments.
- Make sure that the light is bright enough and the surface is with clear textures so that the Optical Flow Positioning can acquire the movement information through recognizing the ground textures.



3.2 Stabilization Functions >>

Altitude-Hold Function



The drone is designed with an altitude-hold function to maintain its altitude after releasing the left joystick. (The left joystick will automatically spring back to the middle)














3.3 APP Functions >>














App Interface



3.3 APP Functions >>

App Interface

- 1 Return (): Tap to return to the home screen.
- 2 System Status (): Displays the flight status and various warning messages.
- 3 Signal Strength (): Display the strength of the GPS signal.
- 4 Transmitter Signal (): Displays the signal strength of the transmitter.
- 5 Battery Level (): Realtime display of the current battery level of the drone.
- 6 Hide (): Tap to hide the icons on the interface.
- 7 VR (): Tap to split the screen. Then place the mobile phone into a VR headset (not included) to watch the live-feed in 3D.
- 8 180° Screen Rotation (): Tap to rotate the screen 180°.
- 9 WiFi Signal (): Display of the signal strength between the cellphone and the drone.
- 10 Flight Setting (): Tap to enter the settings menu. From here, you can modify parameters such as flight height/distance, return altitude, and other related settings.
- 11 Multifunction (): Tap to choose from various flight functions.

- 12 One-Key Takeoff/Landing (): After unlocking the motors with the transmitter, tap once to take off and hover. Tap again to land on the ground.
- 13 Return to Home (): Tap to bring the drone back to the Home Point.
- 14 Photo/Video (): Tap to switch between photo taking and video recording.
- 15 Shutter (): Tap to take a picture or start or stop recording a video.
- 16 Gallery (): Tap to view the photos and videos taken by the drone camera.
- 17 TapFly-Track (): Draw a line on the screen to create a route. The drone will fly along the path.
- 18 TapFly-Point (): Tap a few points on the screen. The drone will fly along the route created by connecting the points you tap in order.
- 19 Submit (): Tap to submit the route.
- 20 Delete (): Tap to delete the route.
- 21 Map (): Tap to switch between Camera View and Map View.
- 22 Distance ( N/A): Drone' s horizontal distance from the Home Point.
- 23 Height ( N/A): Drone' s vertical distance from the Home Point.
- 24 Zoom Dial (): Scroll left and right to zoom in and out.

3.3 APP Functions >>

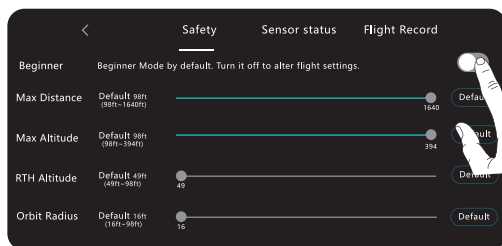
Beginner Mode

It's recommended that beginner pilots first familiarize themselves with the drone by using beginner mode. In Beginner mode, which is the default operating mode, the following settings.

- 1 Flight Distance is capped between 0-98 ft.
- 2 Flight Height is restricted to a range of 0-98 ft.
- 3 RTH Altitude is set to 49 ft by default.
- 4 The default setting for Orbit Radius is 16 ft.

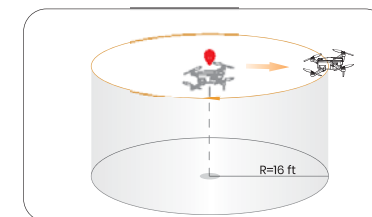
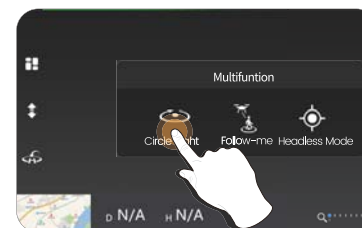
To alter the settings mentioned above, you'll need to turn off beginner mode first.





Flight Settings
On APP




3.3 APP Functions >>

Circle Flight



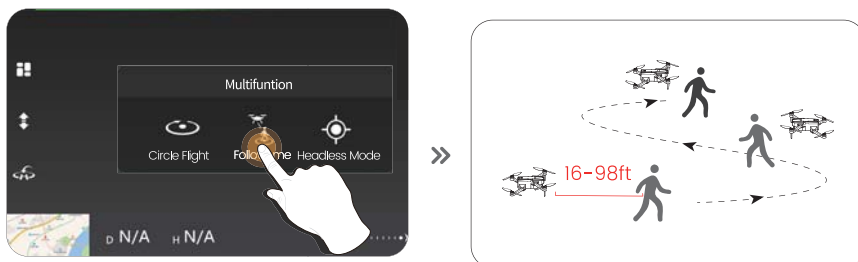
- 1 Tap the  icon first, then select the  icon, and follow the prompt box to enter the Circle Flight function.
- 2 The moment you enter this function, the drone will record its current flight position as the "Circle Flight". It will then continuously circle around that point clockwise. (The default radius is 16 ft).
- 3 To exit Circle Flight mode, simply tap the  icon on the app interface again.

 This drone is NOT equipped with obstacle avoidance. Please make sure that there are no obstacles within the circling radius and fly with caution.




3.3 APP Functions >>

Follow Me

When the Follow Me function is enabled, the drone will track your movement by following the GPS signal of your mobile phone.



3.3 APP Functions >>

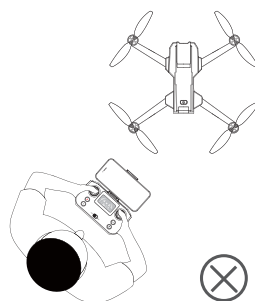
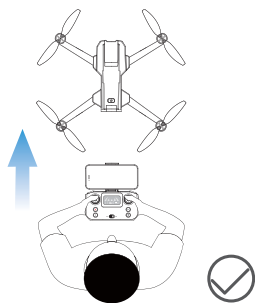
- 1 Ensure the drone's flight range is within 16~98 ft.
- 2 Tap the  icon first, then select the  icon, and follow the prompt box to enter the Follow Me function — the drone will now follow the mobile phone's coordinates.
- 3 To exit Follow Me Mode, simply tap the  icon on the app interface again.

- ⚠ The Follow Me function can only be used if the flight range is within 16~98 ft.
- Follow Me function may be difficult to activate if the mobile phone's GPS signal is too weak. This could be caused by signal interference from surrounding buildings, trees, mobile network congestion etc.
- Please use Follow Me function in an open area and be mindful of your surroundings. The drone is NOT equipped with obstacle avoidance.
- The follow speed is 26ft/s.

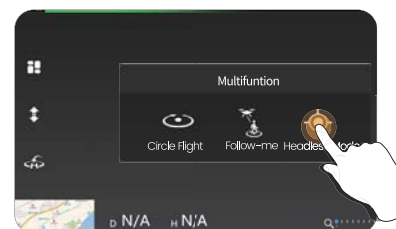
3.3 APP Functions >>




Headless Mode

The Headless Mode is a great training tool for beginner pilots. It is also useful when the drone is too far from the pilot (which makes it difficult to tell its orientation). It keeps the drone traveling forward, backward, left, or right when you move the right joystick in those directions, regardless of which way the front of the drone is pointed.



The pilot should stay facing the same direction that the drone's head points to when it takes off.



- 1 First tap the  icon on the app interface, then select  icon by tapping on it. Follow the instructions in the prompt box to activate Headless Mode.
- 2 Tap the  icon again. The drone exits Headless Mode.

* Why is the orientation of the drone important?

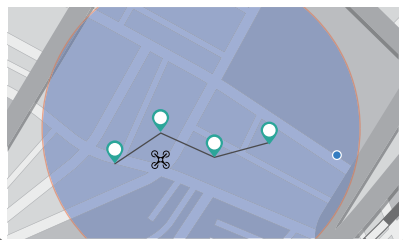
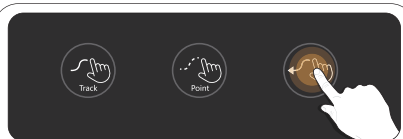
In normal flying mode, the control of the drone movement can sometimes be counter-intuitive for beginners. For instance, when the drone is in the air with its head pointing to your right, if you push the right joystick forward, the drone will fly to your right, instead of flying forward.



With the headless mode, the drone has a fixed "head." In Headless Mode, the drone always remembers the side its head points to during takeoff as the front side. This means that if the drone takes off with its head pointing forward, it doesn't matter how the drone is oriented in the air, when you push the right joystick forward, the drone will fly forward. Or, when its head is pointing to you, if you push the right joystick to the left, the drone will fly to your left. The Headless Mode is a great training tool for beginner pilots. It is also useful when the drone is too far from the pilot (which makes it difficult to tell its orientation). It keeps the drone traveling forward, backward, left, or right when you move the right joystick in those directions, regardless of which way the front of the drone is pointed. Headless Mode



3.3 APP Functions >>



Tap Fly


Before using TapFly, pre-load the map by connecting your phone to the internet and tapping the map icon; auto-loading occurs. Enlarging the map for TapFly is advised.




1 Tap on the map  first, then tap the  icon. Follow the prompt box to enter the TapFly function.

2 **Method 1 :** Tap the  icon on the app interface. Draw a line on the screen to create a flight path, tap  icon to submit the path. The drone will then fly along this path.

Method 2 : Tap the  icon on the app interface, then tap a few points on the screen. Tap the  icon to submit the path. The drone will then fly along the path created by connecting the points you tap in order.





3 Exit the TapFly function by tapping the  icon again.

 DO NOT fly the drone towards people, animals, or small/thin objects (e.g. tree branches and power lines) or transparent objects (e.g. glass or water).

3.3 APP Functions >>




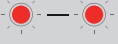

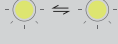
Take Photo/Record Video



- 1 Tap the  icon to switch between photo and video recording modes.
- 2 Tap the  icon to take a photo.
- 3 Tap the  icon to start recording a video. Tap again to stop recording.
- 4 To view the photos and videos, tap the  icon to enter the album.
- 5 If a TF card is inserted into the drone previously, the photos and the videos will be saved to the app album, the cellphone album and the TF card.
- 6 If no TF card is inserted, the photos and the videos will be saved to the app album and the cellphone album.



3.4 Drone Status Indicator >>

Indicator Status		Meanings
	Fast flashing yellow	Unsuccessful pairing after powering on the drone.
	Front arm light steady red, rear arm light steady yellow.	Searching for GPS signals/Successfully exited GPS mode
	Front arm light steady red, rear arm light steady green.	GPS signal search successful.
	Front arm light steady red, rear arm light slow flashing red.	Entered first stage of Low Voltage RTH.
	Front arm light steady red, rear arm light fast flashing red.	Entered second stage of Low Voltage RTH.
	Front and rear arm lights alternately flashing yellow	Entered compass calibration



4.1 Specifications >>

• DRONE :

Model: HS440G	Weight:227g/8oz
Max Flight Time (per battery) : 23 minutes <small>(in a windless environment)</small>	Max Flight Height: 394ft
Max Wind Speed Resistance: 11ft/s	Max Takeoff Altitude: 11483 ft/3500m
Max Flight Speed: 32ft/s	Operating Temperature Range: 32° bis 104°F
Size: 135* 75 * 52 mm (folded)	272* 196 * 52 mm (unfold)

• DRONE BATTERY :

Model: 782768	Capacity: 1700 mAh
Voltage: 7.6 V	Max Charging Voltage: 8.8V
Battery Type: Lithium-ion Polymer Battery	Energy: 12.92Wh
Charging Temperature Range: 41° to 104°F	Charging Time: about 180 minutes




4.1 Specifications >>

• USB CHARGING CABLE:	
Input: 5V/2A	Rated Power: ≤10W
• TRANSMITTER:	
Operating Frequency: 2420-2470MHZ	Max Flight Distance: 1640ft/500 m <small>(outdoor and unobstructed)</small>
Battery Type: 3 x 1.5V AAA	Operating Temperature Range: 32° to 104°F
• CAMERA:	
Operating Frequency: 5150~5250MHZ 5725~5850MHZ	Max Transmission Distance: 1640 ft/500m <small>(outdoor and unobstructed)</small>
Photo Resolution: 3840*2160P <small>(when stored in TF card)</small>	3840*2160P <small>(when stored in cellphone)</small>
Video Resolution: 3840*2160P@25fps <small>(when stored in TF card)</small>	1920*1080P@20fps <small>(when stored in cellphone)</small>
Lens: FOV 105°	Manually Adjustable Range: -90° to 0°
Photo Formats: JPG	Video Formats: MP4
Supported TF Cards: Supports a TF Card (Class 10 or above) with capacity of up to 64 GB.	
Supported File Systems: FAT32	




4.2 Contact Us >>


Please do not hesitate to contact us if you need further support.



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ca@holystone.com (Canada)
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+1 (833) 766-4733



www.holystone.com

4.3 Troubleshootings >>

Probleme	Suggested Solutions
Drone is connected to transmitter's Wi-Fi, but no live-feed.	Please make sure only one device is connected to the Wi-Fi. Try restarting the drone/cellphone, or pairing them again.
Instable flight/abnormal posture.	Operate the drone in open spaces free from obstructions. (1) Manually land the drone immediately and recalibrate the compass (2) Try operating in a different location, ensuring you're away from buildings, power lines, and signal towers. Replace with new propellers.
No map shown in app.	Please make sure the map is pre-loaded in the app. If not, run the app first, then disconnect the drone's Wi-Fi and use mobile data to load the map of the current location by tapping the map icon.
Drone cannot execute the Follow-me function.	Ensure both smartphone GPS and drone GPS are turned on and have found a GPS signal. Please operate the drone in an open area. Environmental interference may lead to inaccurate GPS positioning of the cellphone. Make sure you are within a safe following distance.
Drone cannot take off.	Ensure that the drone and the transmitter are successfully paired. Ensure that the battery is full. If this is your first time flying the drone, make sure you have completed the compass calibration. (see page 19) If you intend to fly indoor, turn off the GPS mode. The LCD screen will show "GPS OFF." (see page 22)
Front lights flash red, rear lights are solid green.	Internal parts malfunctioning, please contact customer service.

4.4 Compliance Information >>

FCC Notice:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

The Supplier's Declaration of Conformity is available at the following address:

https://www.holystone.com/Download/US/HS440G_FCC_sDoC.pdf

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

4.4 Compliance Information >>

RF Exposure:

The equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator & your body.

IC Notice:

This device is restricted to indoor use when operating in the 5150 to 5250 MHz frequency range.

This device complies with Canada Industry licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) this device may not cause interference; and
- (2) this device must accept any interference. Including interference that may cause undesired operation of the device.

CAN ICES-003 (B):

Avis d'Industrie Canada

Le présent appareil est conforme aux CNR d'industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage; et
- (2) l'utilisateur de l'appareil doit accepter le brouillage radioélectrique subi même si le brouillage est susceptible d'en compromettre le fonctionnement. mauvais fonctionnement de l'appareil. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

4.4 Compliance Information >>

CAN NMB-003 (B):

RF Exposure

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

EU RF Power(EIRP): <14 dBm (2452MHz-2474 MHz)

Caution

1. The max operating of the EUT is 40°C, and shouldn't be lower than 0°C.
2. The device complies with RF specifications when the device used at 0mm from your body.
3. Declaration of Conformity.
We, Xiamen Huoshiquan Import & Export CO.,LTD hereby, declare that the UAS HS440G is of class C0, and in compliance with the RED Directive 2014/53/EU, the RoHS Directive 2011/65/EU, Toy Directive 2009/48/EC and UAS Delegated Regulation 2019/945/EU amended by Delegated Regulation 2020/1058/EU.



4.4 Compliance Information >>

The full EU declaration of conformity is accessible at the following website:
http://www.holystone.com/Download/CE/HS440G_EU_DOC.pdf
This product can be used among EU member states.

MANUFACTURER INFORMATION:
Manufactured by
Xiamen Huoshiquan Import & Export CO.,LTD.
Address: Unit 1, Room 501, Hongxiang Building, No.258 Hubin Nan Road, Siming District, Xiamen, China
+1 (833) 766-4733

MTOM Statement:
HS440G is a quadrotor drone. The MTOM of HS440G is 227g, including the propellers, the Flight Battery, TF card, which is compliant with C0 requirements.
Users must follow the instructions below to comply with the MTOM C0 requirements. Otherwise, the drone cannot be used as a C0 aircraft:
1. DO NOT add any payload to the aircraft except the items listed in the List of Items including qualified accessories section.
2. DO NOT use any non-qualified replacement parts, such as flight batteries or propellers, etc.
3. DO NOT retrofit the aircraft.

List of Spare and Replacement Parts
1. HS440G Propellers (Model: HS440G-FY, 0.5g each propeller, 14500RPM)
2. HS440G Flight Battery (approx. 73 g)
3. HS440G TF card (approx. 0.3 g)



4.4 Compliance Information >>

List of Items including qualified accessories
1. HS440G Propellers (0.5g each propeller)
2. HS440G Flight Battery (approx. 73 g)

List of Safe Guards
Below is the list of the mechanical safeguards and operation safeguards for HS440G.
1. Emergency Stop function can be performed to stop the motors in case of an emergency. Refer to the Emergency Stop section for details.
2. Prevent the drone from flying in restricted airspace. Refer to the Flight Environment Requirements section for details.
3. The Return to Home (RTH) function. Refer to the GPS Return to Home section for details.
4. The Optical Flow Positioning. Refer to the Optical Flow Positioning section for details.

Similar products produced by the same manufacturer are electrically identical. Distinguish them based on product model and appearance color.
The firmware of toy product cannot be upgraded. In the future, new versions of the app will be released through the app store. Users can update the app by scanning the QR code in the instruction or searching "HS GPS V4" on the app store.



FCC Statement:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference,
and (2) this device must accept any interference received, including interference that may cause undesired operation.

For aircraft:

RF Exposure Warning Statements:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment shall be installed and operated with minimum distance 20cm between the radiator & body.

For USA: The frequency stability of all transmission frequencies of U-NII-1 and U-NII-3 meets the requirements of 47 CFR FCC Part15.407(g), and the manufacturer declares that their transmission is maintained at Band U-NII-1 and U-NII-3.