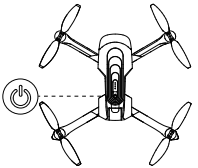
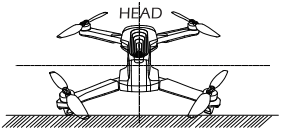
All of the operations shown in this manual are demonstrated using MODE 2.

10.3 Pairing

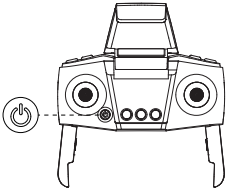
① Long press the power switch to turn on the drone and the indicator lights on the drone begin to flash.



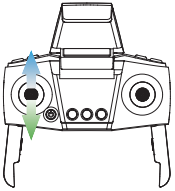
② Place the drone on a flat and level surface with the head forward and the tail towards the pilot.



③ Press the power switch on the transmitter to turn it on and you will hear "Di", then the indicator light on the transmitter will flash.

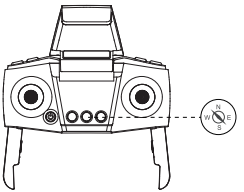


④ Push the left joystick up then down to pair the drone with the transmitter. The indicator lights on the drone and the transmitter will turn solid if the drone is paired successfully.

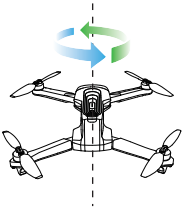


10.4 Calibrating the Compass

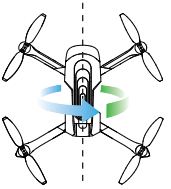
① Long press the Compass Calibration button to enter the compass calibration state.



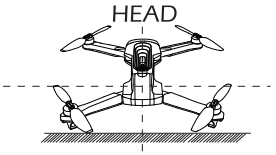
② Hold the drone horizontally and rotate it until the rear indicator lights change from flashing slowly to flashing quickly.



③ Hold the drone vertically and rotate it until the rear indicator lights change from flashing quickly to solid on.



10.5 GPS Searching



Place the drone on a flat and dry surface where is unobstructed and lit area. When the indicator lights change from red to green, it means that the search for GPS signal is completed. This process may take about one minute.

If the search for GPS signal fails, please repeat all the Compass Calibration operations until the process is successful.

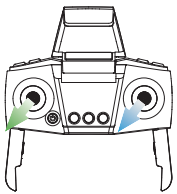
ATTENTION:

① The default mode is the GPS Mode. It is highly recommended to operate outdoor flights in GPS mode for maximum safety.

② If the GPS signal is weak or flying indoors, please short press the Return to Home button to exit the GPS mode. At this time, the drone is in Optical Flow Mode, and the maximum flying altitude does not exceed 6m.

③ The drone will automatically changes to GPS mode when the GPS signal is good. The operator can land and then take off again for a higher altitude.

10.6 Calibrating the Gyro

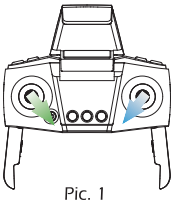


Simultaneously push the left joystick and the right joystick to the bottom left corner to calibrate the gyro.

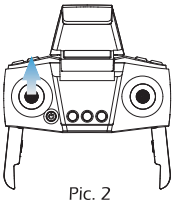
When the indicator lights on the drone blink quickly and turn solid on, indicating calibration is completed.

Tips: To ensure a stable flight, we suggest that the pilot calibrates the gyro every time after pairing the drone and after a crash.

10.7 Unlocking the Motor



Pic. 1



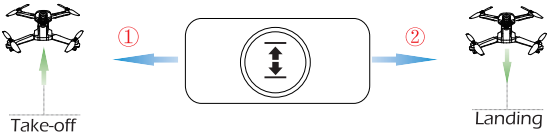
Pic. 2

Method 1: Simultaneously push the left joystick to the bottom right corner and the right joystick to the bottom left corner. The motors rotate and the drone is unlocked. (Pic.1)

Method 2: Push the left joystick up, the motors rotate and the drone is unlocked. (Pic.2)

10.8 One Key Takeoff/Landing

Please unlock the motor before take-off.



① After unlocking the drone, short press the One Key Takeoff button, the drone will automatically take off and hover at 5 feet altitude.

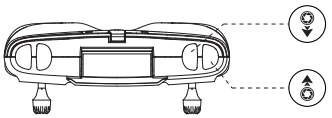
② When the drone is flying, short press the One Key Landing button, the drone will automatically land on the ground.

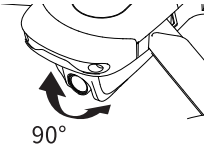
10.9 Drone Status Indicator States

Color	Action	Drone Status
	Solid Red	Pairing succeeded
	Solid Green	GPS Mode
	Solid Yellow	Optical Flow Mode

11.0 FUNCTION DETAILS

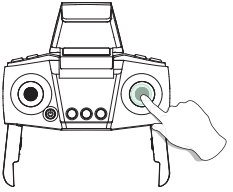
11.1 Camera Angle Adjustment





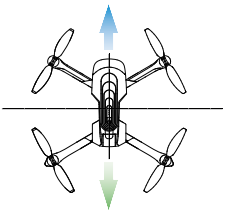
As shown in the figure above, you can adjust the camera to tilt up or down through the two buttons " " and " ".
(The camera has an 90° tilt range.)

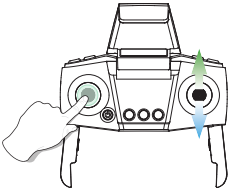
11.2 Speed Switch



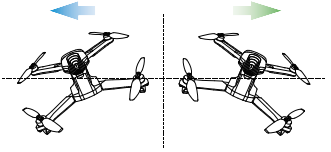
This drone comes with 2 speed modes (Low/High). Press the right joystick down to switch the speed. "Di" indicates Low speed and "Di Di" indicates High speed.
(The Low speed is default speed mode.)

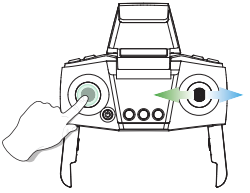
11.3 Trimmer Function





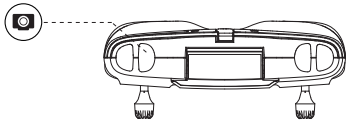
F/B Sideways Drift Trim: If the drone tends to drift forward, press the Throttle joystick and push the Direction joystick down at the same time to re-balance the drone. If the drone tends to drift backward, press the Throttle joystick and push the Direction joystick up at the same time to re-balance the drone.



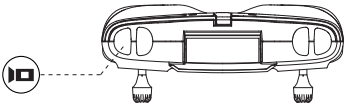


L/R Sideways Dip Trim: If the drone tends to drift left, press the Throttle joystick and push the Direction joystick right at the same time to re-balance the drone. If the drone tends to drift to right, press the Throttle joystick and push the Direction joystick left at the same time to re-balance the drone.

11.4 Take Photo/Video



Take Photo: Short press the Photo button on the transmitter to take pictures. One beep can be heard from the transmitter, indicating the camera has successfully taken one photo.



Record Video: Short press the Video button on the transmitter, two beeps from the transmitter will be heard. This tells you that the camera has started recording video. You can exit the recording by pressing the same button again.

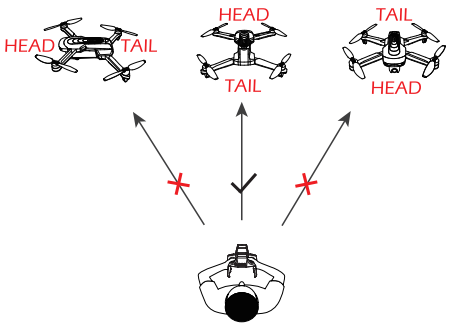
⚠ · Do not take photos during the recording, which will interrupt the recording.

· Without the TF card installed, the photos and videos will be saved in the app albums.

· After installing the TF card, the photos and videos will be saved in both the app album and the TF card.

11.5 Headless Mode

1. After pairing/calibration, short press the Headless Mode Button to enter the Headless Mode. In Headless Mode, the indicator lights of the drone will flash continuously, and the transmitter will send out beeps continuously.
2. Short press the Headless Mode Button again, and you will hear a beep, the indicator lights on the drone will turn solid which indicates the drone exits the Headless Mode.



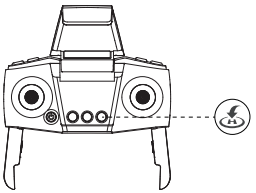
Please make sure the pilot stays in the same orientation as the drone head faces when the drone is pairing.

Under Headless Mode, the forward direction is the direction that the head of drone faces when the drone is pairing. In order to make sure the pilot can tell drone's direction, we recommend that the pilot stays in the same orientation as the drone's head faces when the drone pairing. When the pilot pushes the direction joystick forward, the drone will fly forward. If the pilot pushes the direction joystick backward, the drone will fly towards him/her. If the pilot moves the right joystick left/right, the drone will move left/right relative to you.

11.6 Return to Home (RTH)

The Return to Home (RTH) function brings the drone back to the last recorded take-off point. This function can only be achieved in GPS mode. There are three types of RTH:
Smart RTH/Low Voltage RTH/Failsafe RTH.

11.6.1 Smart RTH



Short press the Return to Home button to enter the return procedure. And you can exit the return procedure by long pressing the Return to Home button again.

⚠ · When the flight altitude is lower than 65 feet, the drone will elevate automatically to 65 feet high, and then return home.
· When the flight altitude is higher than 65 feet, the drone will stay in the current altitude and fly back to the take-off point.

11.6.2 Low Voltage RTH

When the drone's indicator lights flash continuously, it means that the battery is in low voltage. The drone will enter the Low Voltage RTH mode and fly back to the take-off point.

· When the flight distance is lower than 65 feet, you can exit Low Voltage RTH.

· When the flight distance is higher than 65 feet, you cannot exit Low Voltage RTH.

11.6.3 Failsafe RTH

If the GPS signal is available and the take-off point is recorded previously. Failsafe RTH will be triggered if the transmitter signal is lost for more than 10 seconds. The drone will automatically start the return procedure and it will fly back to the last recorded take-off point. You can exit Failsafe RTH mode by pressing the Return to Home button if the transmitter signal is recovered.

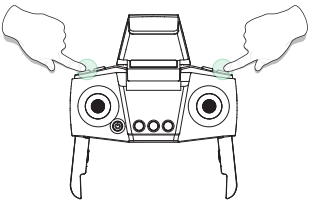
⚠

· During the Failsafe RTH procedure, the drone can not avoid obstacles.

· The drone cannot Return-to-Home if the GPS signal is weak.

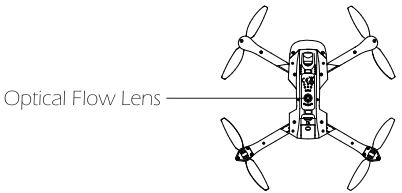
11.7 Emergency Stop

⚠ The Emergency Stop function can be only used in case of emergency during the flight to avoid any of damage or injury.

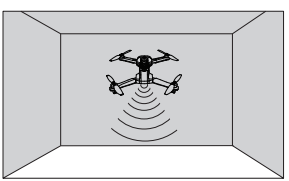


Press and hold the Record Video button and the Lens down button simultaneously for 2 seconds, you will hear 5 beeps from the transmitter, and the drone will fall down immediately.

11.8 Optical Flow Positioning



The Optical Flow Positioning System consists of optical flow lens modules, 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 indoor environment when GPS is weak or unavailable. It works best when the drone altitude is less than 20 feet/6 meters.

The precision of the Optical Flow Positioning System is easily affected by the light strength and features of the surface textures. Once the image sensor is not available, your drone will switch to Gesture Mode automatically. Be cautious to operate the drone in the following situation:

1. Fly fast at an altitude below 0.5m.
2. Fly over monochrome surfaces (like pure black, pure red, pure red and pure green).
3. Fly over strong light reflective surfaces or surfaces prone to reflection.
4. Fly over water or transparent object surfaces.
5. Fly over moving object surfaces (such as crowds, swaying juggles and glass).
6. Fly over an area where light changes dramatically and rapidly.
7. Fly over surfaces extremely dark (lux<10) or extremely bright (lux> 10,000).
8. Fly over surfaces without clear textures.
9. Fly over surfaces with highly repeating textures (small grid brick in the same color).
10. Fly over surfaces that are tilting over 30 degrees (could not receive the echo of the ultrasonic wave).
11. Flying speed should be controlled not to be too fast. When drone is 1 meter from the ground, the flying speed should not be over 5m/s. When the drone is 2 meter against the ground, the flying speed should not be over 10m/s.

・Keep sensors clean at all times.
・The vision system is only effective when the drone is within the altitude range of 20 feet.
・Make sure that the light is bright enough and the surfaces is with clear textures so that the vision system can acquire the movement information through recognizing the ground textures.
・The vision system may not function properly when the drone is flying over water, low light ground and surfaces without clear patterns or textures.

12.0 SPECIFICATIONS

DRONE

Model: HS175D

Weight: 215g/7.58oz

Max Flight Time: 23 minutes (per battery)

Operating Temperature Range: 32° to 104°F

Size: 145 × 90 × 60 mm (Folded)

360 × 300 × 70 mm (Unfolded)

DRONE BATTERY

Capacity: 1700 mAh

Voltage: 7.6 V

Battery Type: Li-Po

Energy:12.9 Wh

Charging Temperature Range: 41° to 104°F (5° to 40°C)

Charging Time: about 150 minutes

TRANSMITTER

Operating Frequency: 2.4 GHz

Max Flight Distance: 1640 feet/500m

(outdoor and unobstructed)

Battery Type: 3.7V 380mAh Li-Po battery

Operating Temperature Range: 32° to 104°F

Charging Time: 60 minutes