



ITEM NO. HS170



PREDATOR

SIX AXIS GYRO 2.4 Ghz R/C series 4 channel

Instructions for use



- Please refer to this Instruction Manual for HS170 Predator Drone only.
- In case of discrepancy in the model color, the version for sale on-line shall prevail.

HS170

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Preface

To make your experience with this drone as straightforward and convenient as possible, please read this instruction manual carefully before operation. Keep it safe for future reference to ensure continued, safe and enjoyable use of your drone.

Important Statement

- 1.This product is not just a toy. It is a high precision quadcopter integrating various electronic stability and control mechanisms. This drone requires careful and correct assembly and setup to ensure safe, accident free operation. This equipment should be operated in a safe and controlled way at all times. Incorrect or dangerous operation may cause damage to the device or property, or cause serious injury to those in the vicinity.
- 2.This product is suitable for experienced drone pilots over 14 years of age.
- 3.In case of difficulties with any aspect of the product, operation or maintenance, please contact your local sales agent or contact customer services here at Holy Stone.

Safety Guidelines

This product is a flying camera that offers easy, controllable flight when in good working order, however it is also a significant risk to property and people if flown irresponsibly or within confined spaces. Incorrect assembly or poor control by inexperienced pilots can result in damage to property or harm to people in an unexpected accident. Be fully aware of your surroundings when flying and always maintain complete control of the vehicle at all times.

1.Keep Your Distance

- ★ Always fly in locations that are clear of any obstructions, such as buildings, pylons, trees and so on
- ★ Never fly above or near to a large crowd of people

2.Do not fly in adverse weather conditions

- ★ Keep clear of moisture, heavy rain, ice and excessive wind.
- ★ Fly in moderate weather conditions only

3.Use and maintain the product according to the instructions

- ★ Operate this device legally in accordance with instructions provided within
- ★ Always use original parts made by Holy Stone for maintenance and repair

4.Do not operate the device alone

- ★ If you are a new pilot, seek assistance from an experienced drone pilot as you learn
- ★ Have experienced pilot around to help you fly at all times

5.Safety First every time

- ★ Always operate the drone within your limits as a pilot. If you are ill, disoriented, or unsure of how to effectively fly the drone please seek help as this can lead to danger, damage or injury.

6.Keep clear of rotating parts

- ★ During operation the rotors revolve extremely quickly, please avoid contact with the blades and ensure that foreign objects are kept clear of all moving parts.

7.Avoid exposure to excessive heat

- ★ Due to the numerous material types used in construction, this drone is not suitable for exposure to heat. Please keep your device away from heat sources and avoid prolonged exposure to direct sunlight. High temperatures can distort the structure of the device, please check for such damage before flying.

Warning

- 1.The information and guidance within this package and instruction manual is important for the safe operation and maintenance of your drone. Please keep it safe for future reference.
- 2.You accept sole responsibility for any injury, loss or damage that result from your misoperation of the device.
- 3.Always follow the instructions when assembling or operating the drone. Always keep at least 2 meters between the user or viewers and the model to avoid risk of injury. Pay attention to the device at all times while in flight.
- 4.Neither Holy Stone nor any distributors or agents accept any responsibility for loss, injury or damage caused by incorrect operation of the drone.
- 5.This drone is not suitable for children under the age of 14, and should always be operated under supervision for young pilots.
- 6.Please ensure assembly instructions are followed correctly to ensure proper operation and performance of your drone.
- 7.This product contains small parts. To avoid any choking hazard, please keep this drone and all components out of the reach of children.
- 8.You must not under any circumstances fly this drone over open water or near public highways to avoid risk of accident.
- 9.Keep all packaging materials away from children and dispose safely.
- 10.The internals of the drone are not user serviceable, please do not attempt to disassemble this drone or re-equip any part of the drone, to avoid malfunctions during flight.
- 11.Please ensure batteries are fitted in the correct orientation as shown in these instructions.
- 12.You can access the transmitter battery compartment by unscrewing the screws on the battery cover. Insert batteries ensuring they are in the right orientation. Always replace battery cover and tighten the screws to secure before use.
- 13.Only use the charger provided with your drone for safety.
- 14.The charger is not a toy.
- 15.Always pay close attention to battery polarity when inserting any batteries to make sure they are fitted correctly.
- 16.Use either rechargeable or non-rechargeable 'AA' batteries in the transmitter.
- 17.Use only recommended batteries in the transmitter, please remember that non-rechargeable batteries must not be charged.
- 18.For rechargeable batteries, always follow manufacturer's instructions and have adult supervision. Do not leave charging batteries unsupervised and as batteries get hot when charging, avoid any combustible material.
- 19.Avoid short circuits by fitting the batteries incorrectly, and do not crush or squash batteries as this carries a risk of explosion.
- 20.Do not mix new and old batteries as this can lead to unpredictable performance.
- 21.Dispose of used batteries carefully, do not litter.
- 22.The power socket must not be removed from this drone. Do not attempt to short circuit the connecting socket.
- 23.When disposing of batteries do not throw on fires, leave to decompose. Keep clear of heat sources and high temperatures at all times.
- 24.If the device is not going to be used for an extended period, remove batteries to prevent potential damage from battery leakage.
- 25.Care should be taken to keep your drone away from sources of magnetic interference or other electrical equipment to prevent signal issues during operation.
- 26.Keep clear of rotating parts and beware of loose clothing that could become entangled in the rotors causing injury.
- 27.Do not shoot the light beam directly at other people or yourself.
- 28.Be aware of the volume of noise the drone produces. Keep your distance to avoid ear damage.
- 29.The charge socket uses a mini USB 5V connection.
- 30.Always use the product in compliance with local aviation radio rules and comply with local authorities should they require you to refrain from operating at any time.

Maintenance

- 1.Clean the product after each use with a clean, soft cloth.
- 2.Avoid prolonged exposure to direct sunlight and avoid heat buildup in the drone.
- 3.This device is not waterproof and must not be submerged in water under any circumstances. Failure of the unit will result from water contamination.
- 4.Check the charging plug and other accessories for signs of damage frequently. If any part of the device is damaged, refrain from flying until maintenance can be carried out.

Descriptions of Parts

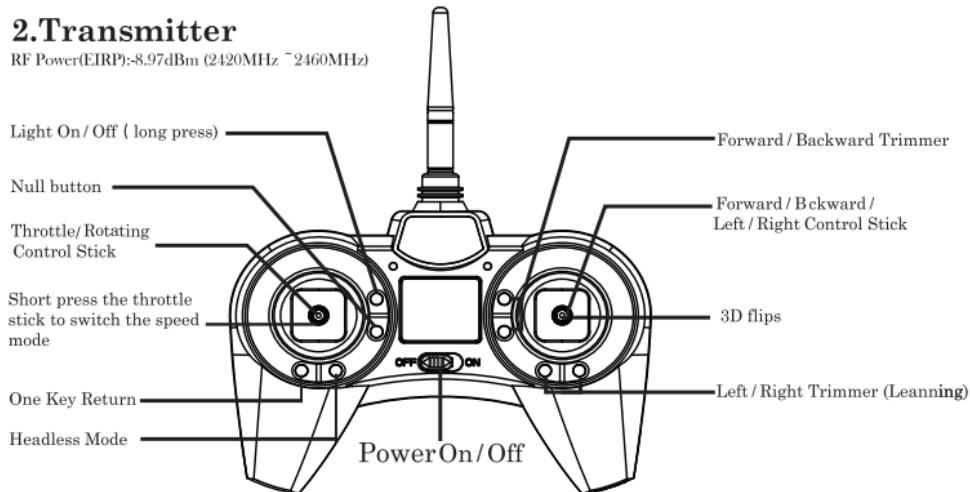
1.The Drone



It is crucial that all the propellers are installed in the right direction. (counterclockwise/clockwise adjacent, reference to the letter printed on each blade)

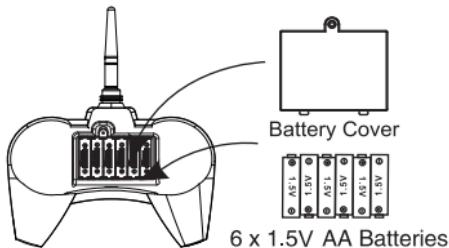
2.Transmitter

RF Power(EIRP):-8.97dBm (2420MHz ~2460MHz)



Transmitter Batteries Installation

Open the battery compartment cover of the transmitter, install the batteries into the box according to electrode instructions (Batteries not included).



Notice:

- (1)When install the battery, you must follow the electrode instructions, loaded reverse won't work.
- (2)Don't mix new and old batteries.
- (3)Don't use different types of batteries.

Charging the Battery

Connect the battery to the USB charger connector, then, connect the USB charging connector to a computer USB port. The red light stay on during the charging, and turn to green when fully charged.

It take around 45-60 minutes to fully charge the battery. It flies for around 6-9 minutes on a fully charge.



⚠ Connect USB port to Adapter (5V 0.5A-1A) or Powerbank.

Warning: Please use only the supplied USB charger connector to charge the Lipo battery.

Flying Operation

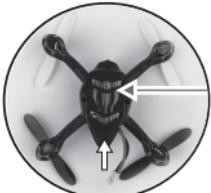
Tips:

- (1)Flying field should be in an open space with at least 15M length *15M width*5M height.
- (2)Make sure that the batteries of the drone and transmitter are fully charged.
- (3)Please strictly follow the order of turn-on, turn-off before operation. When starting your flight, turn on the transmitter first, and connect the power cable of quadcopter last; When finish your flight, please disconnect the power cable of your quadcopter, then turn off transmitter. A change in the order of connection may cause your quadcopter to lose control, which can be hazardous and dangerous for those around. Please cultivate a correct habit of turn-on and turn-off operation.
- (4)Make sure the connection is solid between the battery and the motor. The constant vibration may loosen the connection of the power terminal and cause the quadcopter to lose control.

1. Turn on the transmitter. The LED indicators will flash when the transmitter is on.
2. Place the drone on the flat ground, connect the power of the drone, the lights will flash.
3. Quickly shift the left stick up and down. If done correctly, the transmitter sound will beep, and the LED indicator will turn solid. When the lights of the drone stop flashing and turn solid, it indicates that the drone is ready to fly.



Enlarge the space



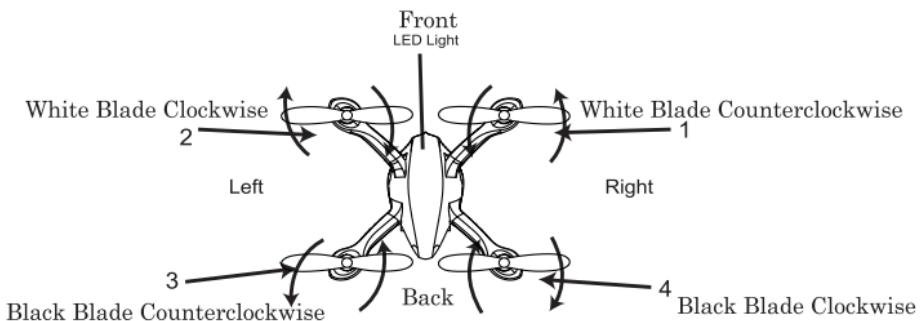
Insert the battery



Connect the power

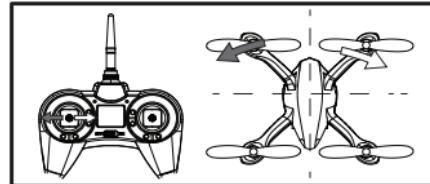
Important notice: (Battery installation and power connection of the quadcopter)
When inserting or removing the battery of the quadcopter, pull up the white plastic tail to enlarge the space for the battery. (it might be tight for the first couple of times)

Additional Instruction Before Flying

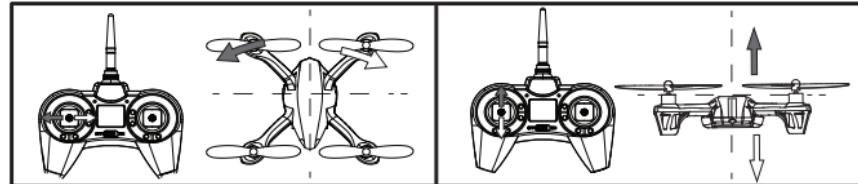


1. The white blades are at the front and the black blades at the back.
2. Power on the quadcopter, check the rotating of blades(1,2,3,4). Blades 1&3 rotate counterclockwise, while blades 2&4 rotate clockwise.
3. Recalibration: While flying, if the quadcopter tilts to one side, or the Gyro gets confused, please reset the Gyro (see page 7).

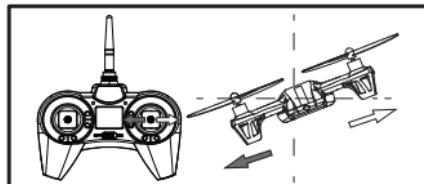
1. The left joystick controls the direction of the drone. Moving it left or right will cause the drone to turn left or right accordingly.



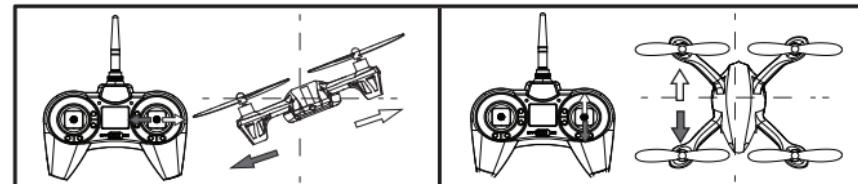
2. The left joystick controls the vertical movement of the drone. Moving it up or down will cause the drone to fly upward or downward accordingly.



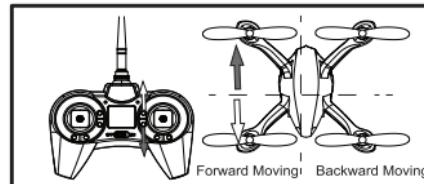
3. The right joystick controls the horizontal movement of the drone. Moving it left or right will cause the drone to lean left or right accordingly.



4. The right joystick controls the horizontal movement of the drone. Moving it up or down will cause the drone to fly forward or backward accordingly.

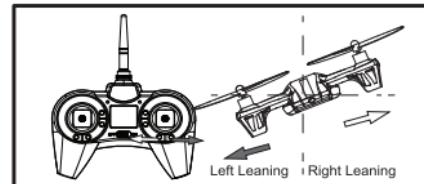


5. Adjust forward and backward trim



When taking off, if the drone drifts forward, then adjust the backward trim; If it drifts backward, then adjust the forward trim.

6. Left & right trimmer



When taking off, if the drone drifts to the left, then adjust the right trim; If it drifts to the right, then adjust the left trim.

This quadcopter comes with high and low speed modes, press down the high and low speed button in the transmitter(left stick), then the transmitter will beep once, twice or three times with each time indicating each speed mode.

One beep: Low speed mode, suitable for beginners pilots.

Two beeps: Medium speed mode, suitable for intermediate pilots.

Three beeps: High speed mode, suitable for expert pilots.

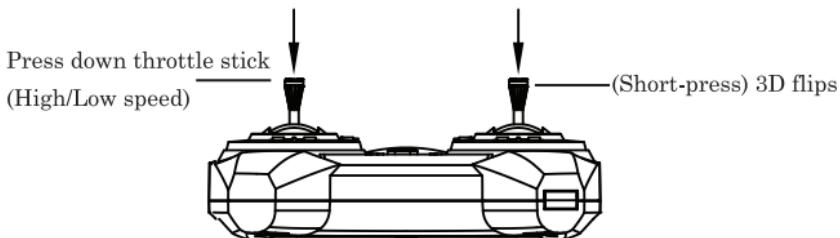
Calibrating the Gyro

1. Place the quadcopter on a flat, level surface.
2. Throttle up and down to bind the quadcopter to the transmitter as usual.
3. Turn both the sticks down to the bottom left, the lights on the model will flash, release the sticks when the lights go solid. And there will be a beep sound.
4. The Gyro is now recalibrated.

Note: If the light does not flash, try to turn the stick to the bottom right side.

Flips Mode

Shortly press down the right stick, the transmitter will beep constantly, which indicates that the quadcopter enters into Flips Mode, then move the right stick to any direction for one 360° flip.



Warning: Enough space should be required for this motion, otherwise, danger may occur.

Headless Mode/One Key Return

1. About Headless Mode

Headless Mode makes it easier to control the steering of the drone. When headless mode is off, the direction that the head of the drone faces would be the forward direction. In headless mode, the direction the pilot faces would be the forward direction.

2. Use Headless Mode function

Press down the Headless Mode button to enter into Headless Mode. The transmitter will keep beeping slowly in Headless Mode, the lights of the drone will also keep flashing. Press down the button again to exit the Headless Mode.

3. One Key Return

Press down the One Key Return button during the flight, the transmitter will keep beeping quickly and constantly, the drone will fly to the pilot directly.

Tips: (Important!) 

1. When pairing the remote to the quadcopter, make sure the head of the quadcopter is facing forward, and the tail of the quadcopter is facing towards the flyer (and the remote).
2. When flying in headless mode/One Key Return, the flyer should not move around. This is because the quadcopter will fly relative to the point where it is bound (to the remote), not relative to where the remote is.
3. That said, it is important to stay stationary and facing the same direction as you were when the drone and transmitter were paired.



One Key Return direction

 Wrong

 Right



One Key Return direction



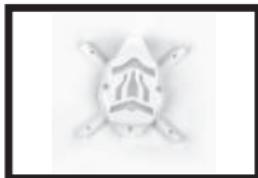
One Key Return direction



Parts



Blades



Cover



Clockwise motor
(red/blue wire)



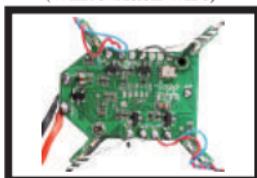
Counterclockwise motor
(white/black wire)



Main Shelf



Battery



Receiver Board



USB Charger Connector



Transmitter

Caution

- 1.Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
- 2.The max operating of the EUT is 45°C, and shouldn't be lower than -10°C.
- 3.The device complies with RF specifications when the device used at 0mm form your body.
- 4.Declaration of Conformity

We, Xiamen Huoshiquan Import & Export CO., LTD

hereby, declare that the essential requirements compliance with the Directive 2014/53/EU, the RoHS Directive 2011/65/EU and Safety Directive 2009/48/EC have been fully fulfilled on our product with indication below:

Product Name: Radio Control Drone

Model/Brand Name: HS170/HOLY STONE

The Statement of compliance is available at the following address:

http://www.holystone.com/Download/CE/HS170_EU_DOC.pdf

This product can be used across EU member states.

FCC Information

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.

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.

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

RF Exposure

The equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

IC Notice:

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-3 (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.

CAN NMB-3 (B)

RF Exposure

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé.

LiPo Battery Care Instructions

Temperature

- Heat is a known factor. If a battery is pushed beyond 60°C during discharging or charging, problems could occur due to metallic lithium generation, which damages the cell.
- After a flight, you may find your batteries are warm to touch. Cool down the battery a little bit before recharging.

Storage

- Please store batteries at normal room temperature and avoid direct exposure to sunlight or heat. When storing LiPo battery for any length of time, they should ideally be stored at a temperature of between 5°C and 7°C.

If you have a battery pack sitting on the shelf, fully charged, never try topping it up till it has been partially or fully discharged!

Usage

- There should be a time interval between charging and using battery.
- Please make sure you time your flights to leave about 20% power remaining in the batteries (instead of completely draining them down) as that would prolong battery life and you can enjoy more cycles!

- If the battery is pushed beyond its limits, the battery could get hot and the performance will drop.
- When using the battery for a long time, the quantity of heat of your battery will increase. If it is sealed, the air inside will inflate rapidly causing heating.

Charging

- DO NOT overcharge the battery. It may cause overheating and in turn this overheating could damage the unit.
- Never try charging a pack that has been crashed or is damaged, you run the risk of fire! Cells that are obviously swollen or have physical damage should never be used and careful disposal is required, especially if the cells are swollen.
- If the battery or the charger is defective, you should discard it immediately and process a warranty from our support team(usa@holystone.com). We can arrange to ship you a replacement charger or battery.
- After crashing the quadcopter, please check the battery connector and battery properly.
- Please use genuine factory spare parts replacements from Holy Stone only.



Li-Po Battery Disposal & Recycling

Wasted Lithium-Polymer batteries must not be placed with household trash. Please contact local environmental or waste agency or the supplier of your model of your nearest Li-Po battery recycling center.



Importer Information

Importer by:

Xiamen Huoshiquan Import & Export Co., Ltd
Room 703, No.813-2 Xiahe Road, Siming District,
Xiamen, China



Made in China