



Ages 14+
Please read the instructions carefully before use.

INSTRUCTION MANUAL



Q4 CAM
No.H111C

1 INTRODUCTION

Thank you for buying HUBSAN products. The Q4 Nano quad is designed as an easy-to-use, full-featured RC model capable of hovering and aerobatic flight maneuvers. Please read the manual carefully and follow all instructions in it. Be sure to retain the manual for future reference, routine maintenance and tuning.

2 SAFETY NOTES

2.1 Important Notes

This RC Nano quad is not a toy.

Any improper use of this product will result in serious injury. Be aware of your personal safety, safety of others and your surrounding environment.

We recommend beginners learn to fly with more experienced pilots playing nearby before attempting to fly the Q4 for the first time.

2.2 Caution

The Q4 Nano quad has parts that move at high speed, which poses a certain degree of danger.

Choose a wide open space without obstacles. Do not operate the Q4 near buildings, crowds of people, high voltage cables, or trees to ensure the safety of yourself, others and your model.

Improper operation may cause damage to people and property.

2.3 LiPo Battery Safety Notes

The Q4 is powered by a Lithium-Polymer (LiPo) battery.

If you do not plan to fly the Q4 for a week or more, store the battery approximately 50% charged to maintain battery performance and life.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

The toy is only to be connected to Class II equipment bearing the symbol



SAFETY ADVISORY NOTICE Lithium-Polymer (LiPo) Batteries

LiPo batteries are different from conventional batteries in that their chemical contents are encased in a relatively lightweight foil packaging. This has the advantage of significantly reducing their weight, but does make them more susceptible to damage if roughly or inappropriately handled. As with all batteries, there is a risk of fire or explosion if safety practices are ignored:

- ☑ Charge and store LiPo batteries in a location where a battery fire or explosion (including smoke hazard) will not endanger life or property.
- ☑ Keep LiPo batteries away from children and animals.
- ☑ Never charge the LiPo battery that has ballooned or swelled.
- ☑ Never charge the LiPo battery that has been punctured or damaged.
- ☑ After a crash, inspect the battery pack for the sign of damage. Discard in accordance with your country's recycling laws.
- ☑ Never charge the LiPo battery in a moving vehicle.
- ☑ Never overcharge the LiPo battery.
- ☑ Never leave the LiPo battery unattended during recharging.
- ☑ Do not charge LiPo batteries near flammable materials or liquids.
- ☑ Ensure that charging leads are connected correctly. Reverse polarity charging can lead to battery damage or a fire or explosion.
- ☑ Have a suitable fire extinguisher (electrical type) OR a large bucket of dry sand near the charging area. Do not try to extinguish electrical (LiPo) battery fires with water.
- ☑ Reduce risks from fire/explosion by storing and charging LiPo batteries inside a suitable container.
- ☑ Protect your LiPo battery from accidental damage during storage and transportation. (Do not put battery packs in pockets or bags where they can short circuit or can come into contact with sharp or metallic objects.)
- ☑ If your LiPo battery is subjected to a shock (such as a crash), place it in a metal container and observe for signs of swelling or heating for at least 30 minutes.
- ☑ Do not attempt to disassemble or modify or repair the LiPo battery.

2.4 Prevent Moisture

The Q4 contains many precision electrical components. Store the battery and the Q4 in a dry area at room temperature. Exposure to water or moisture may cause malfunction resulting in loss of responsiveness, or a crash.

2.5 Proper Operation

For safety only use the included HUBSAN spare parts for replacement.

2.6 Always Be Aware of the Rotating Blades

When in operation, the rotor blades will be spinning at high speed. The blades are capable of inflicting serious body injury or damage to property. Be careful to keep your body and loose clothing away from the blades. Never take your eyes off the Q4 or leave it unattended while it is turned on. Stop operating immediately if the Q4 flies out of your view. Once landed, immediately turn off the Q4 and transmitter

2.7 Avoid Flying Alone

Beginners should avoid flying alone when learning flight skills. We recommend flying with an experienced pilot nearby in case you need help.

3 SAFETY CHECK BEFORE FLYING

CAREFULLY INSPECT THE Q4 BEFORE EVERY FLIGHT

- Before operation, check the batteries of the transmitter and Q4 are charged for the flight.
- Before turning on the transmitter, check that the throttle stick is pulled completely backward (down position).
- Carefully check rotor blades and rotor holders. Broken parts will pose a risk of injury and hazard.
- Check the battery and power plug are securely fastened. Severe vibration during flight may detach the plug and result in loss of control.
- When turning on the unit, always turn on the transmitter first, and then turn on the Q4. To power off, always turn off the Q4 first and then the transmitter. Improper procedure may cause loss of control of the nano quad.

Environmentally friendly disposal

Old electrical appliances must not be disposed of together with the residual waste, but have to be disposed of separately. The disposal at the communal collecting point via private persons is for free. The owner of old appliances is responsible to bring the appliances to these collecting points or to similar collection points. With this little personal effort, you contribute to recycle valuable raw materials and the treatment of toxic substances.

4 Nano quad

4.1 Charge the Q4

Connect the battery with USB charger, then connect the USB charger to a computer or other USB connector, such as a smartphone charger. The LED lights up while charging and turns off when charging is complete. The voltage of the USB is 5±0.5V.

The nano quad is equipped with a 3.7V 180mAh Lipo battery. Charging time is around 30min. Flying time is around 5min.

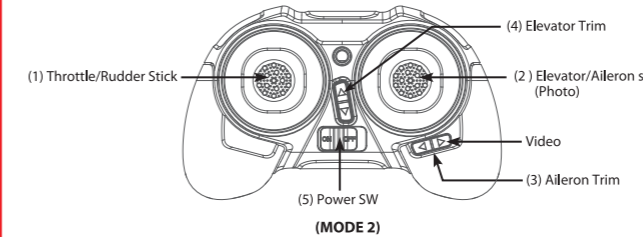
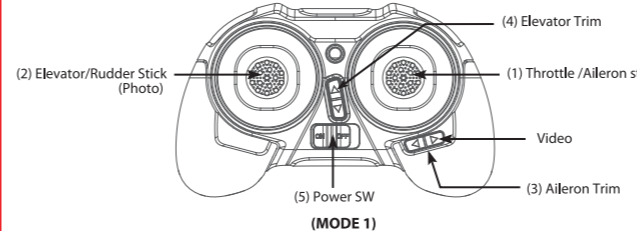
The battery should only be charged with HUBSAN charger, or it will be overcharged.

4.2 Power on the Q4

Hold down and press the power button for 3 seconds to power on/ off the Q4.

5 TRANSMITTER

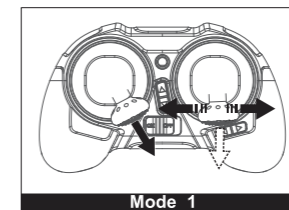
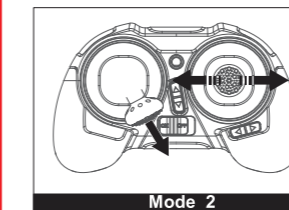
5.1 Identification and functions of the Main Menu TRANSMITTER



5.2 ACCELEROMETER CALIBRATION

Mode 2: Push the left Stick to the right lowest corner, and move the right Stick left to right quickly, the 4 LED indicators will blink circularly, and the calibration is completed when the indicators stop blinking.

Mode 1: Push the left Stick to the right lowest corner, put the right Stick to the lowest and move it left to right quickly, the 4 LED indicators will blink circularly, and the calibration is completed when the indicators stop blinking.



6 CAMERA RECORDING

6.1 Photo

Press the Photo button for 1.5 seconds to take photo, indicated by 2 red LED blink once.

6.2 Video

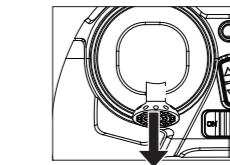
Press the Video button for 1.5 seconds to take video, indicated by 2 red LED blink alternately; Press the Video button for 1.5 seconds again to save the video and stop recording, indicated by 2 red LED stop blinking.

7 START TO FLY

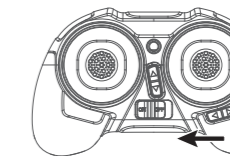
7.1 Power-On (Failsafe) Procedure

Your Q4's flight controller is designed with a Power-On safety feature that ensures the Q4's motor will not start unless it detects a suitable radio-control signal when the Q4 and the transmitter both power on and paired.

7.1.1 Make sure the throttle stick is in the full down position.



7.1.2 Power on the transmitter and the red LED will blink. Do not move any other stick or trim before the transmitter and Q4 finish pairing, or the Q4 will drift. The transmitter LED will turn green after pairing is successfully completed.



User manual is subject to change without prior notice due to unforeseen product upgrades.

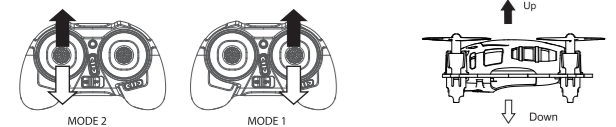
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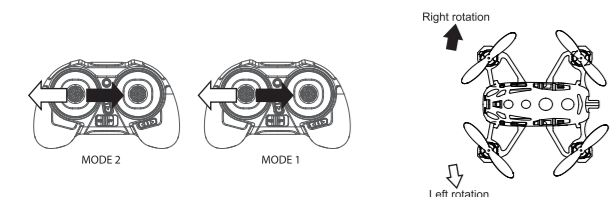
VERSION 1.2 EN



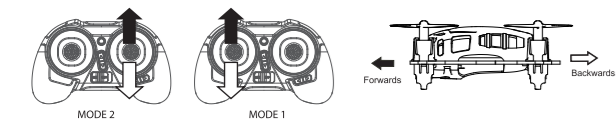
7.2 Transmitter Sticks And Q4 Control Responses
 CAUTION: To avoid loss of control, always move the transmitter sticks slowly. Be aware that control inputs will reduce available lift. Be ready to use a little extra throttle to maintain height during maneuvers.



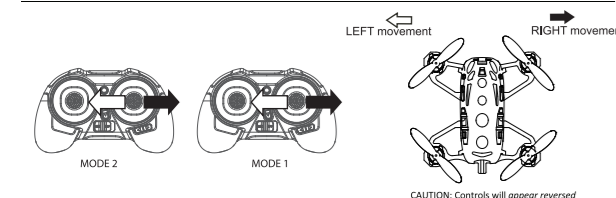
Throttle increases/decreases the flying height of your Nano quad.



Rudder rotates your Nano quad's fuselage left or right.

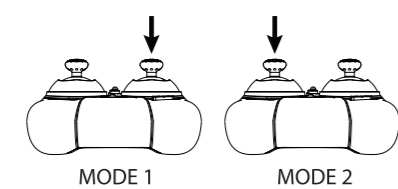


Elevator moves your Nano quad forward and backward.



Aileron moves your Nano quad left and right.

7.3 Headless Mode
 Headless mode means the X4 will default any direction as its head in front of the transmitter. The blue lights on the X4 will blink.

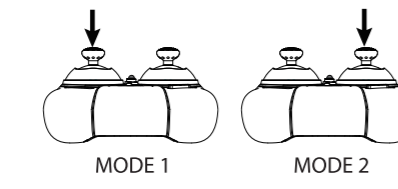


Press the Throttle stick briefly to switch on/ off headless mode.

Press the Throttle stick to enter headless Mode, indicated by two "beeps". Press the Throttle stick again to exit headless Mode, indicated by one "beep".

8 Normal Mode/ Expert Mode

The default setting is Normal Mode, and the Expert Mode can be activated to have a better sensitivity on the performance of the Q4.



Press the Elevator stick for 0.5 second to shift between Normal Mode and Expert Mode.

When it's in Normal Mode, the LED indicator on transmitter is in green. When it enters into Expert Mode, the LED indicator on transmitter is in red, indicated by two "Beeps".

9 Aerial Flip Tips

The flip works both in Normal mode and Expert Mode.

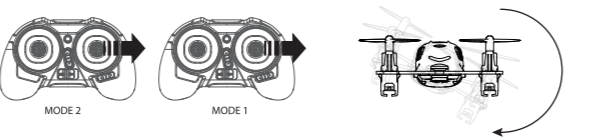
For proper flip execution, make sure the Q4 has a 30° angle to the ground, and add throttle to climb before you perform a flip.

Press and hold down the throttle stick for 1 second to enter Flip Mode, Indicated by "beeps". The beeps will last for 2 seconds. In this 2 seconds, push the accordance sticks to perform the flips.

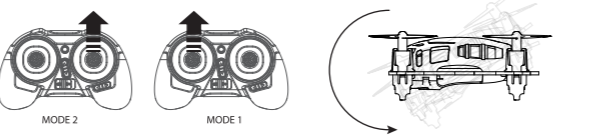
9.1 Left Flip
 Push the Aileron stick fully to the left quickly, then release the stick to the center position.



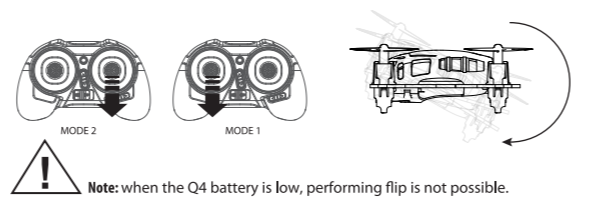
9.2 Right Flip
 Push the Aileron stick fully to the right quickly, then release the stick to the center position.



9.3 Forward Flip
 Push the Elevator stick fully forward quickly, then release the stick to the center position.

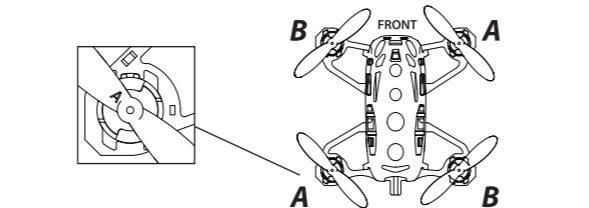


9.4 Backward Flip
 Push the Elevator stick fully backward quickly, then release the stick to the center position.

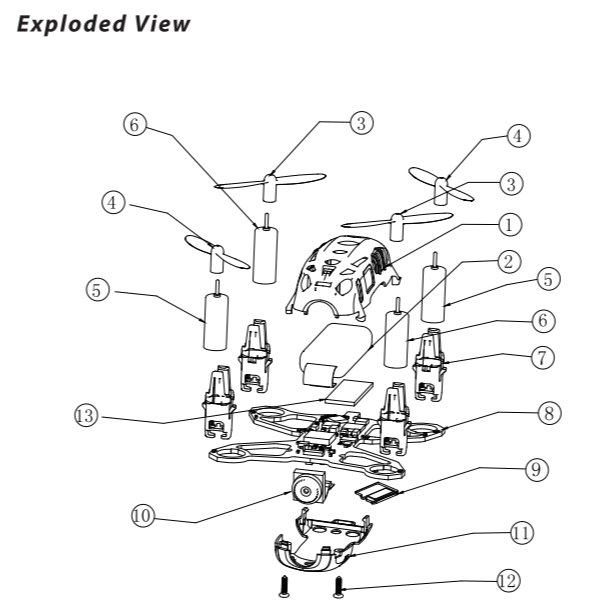
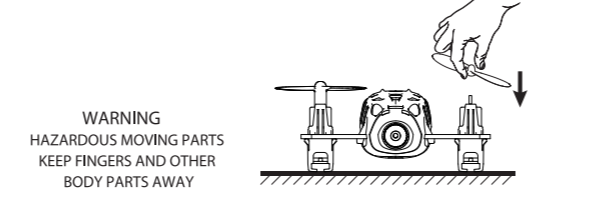


10 REPLACING PROPELLERS

The Q4's propellers are not identical. Each propeller is labeled with an A or B. When installing replacement propellers, be certain to install as shown below. The Q4 will not fly, and will flip and crash if the propellers are not installed correctly.



Install Propellers: Pinch the propeller hub, align the hole to the motor shaft, and press it straight down firmly but gently.



No	PART NAME	QTY	No	PART NAME	QTY
1	Upper shell	1	8	Mini RX PCBA	1
2	LiPo Battery	1	9	SD Card	1
3	Blade A	2	10	Camera cap	1
4	Blade B	2	11	Lower shell	1
5	motor (clockwise)	2	12	Screw PA1.4*4.5	2
6	motor (counterclockwise)	2	13	Double-sided adhesive tape	1
7	motor supportor	4			

H111C TROUBLESHOOTING

1. Transmitter and Q4 will do not pair.
 Throttle position needs to be fully minimized. Please do not move the transmitter sticks or trims during initial power-on binding.

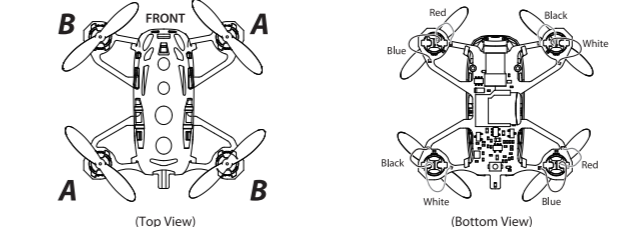
2. Gyro not working well
 (1) Battery voltage too low.
 (2) Re-bind
 (3) Land on to the ground with the throttle fully minimized for 3 seconds and take off again.

3. Unable to Flip
 (1) Press the Elevator stick briefly to switch into high stage(transmitter LED blinks orange, three "Beep"). Please check Elevator Sensitivity Setup(P8);
 (2) Press the throttle stick to turn off the anti-flip;
 (3) Lipo power is too low. Recharge the Q4.

4. Nano quad is shaking and making noise.
 Check that the motors, canopy, body and propellers are all properly positioned.

5. Switching between low and high rates on the transmitter is difficult.
 Press the elevator stick briefly to swtich into high stage(transmitter LED blinks orange, three "Beep").

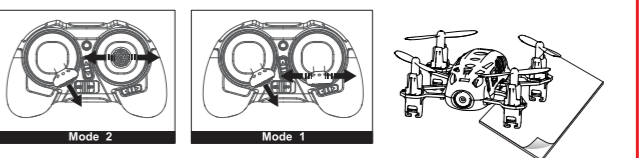
6. Can not take off.
 (1) Improper installation of the props. Props are marked with "A"(CW) and "B"(CCW). Please check the pictures below for the correct order.
 (2) Improper installation of motors. Please check to make sure that each motor is installed in its correct position. There are two different types of motors with different motor wire colors. Please check the pictures below for the correct order.



7. One or more motors stop working
 (1) Motor is damaged. Replace the motor.
 (2) Resolder any broken motor connections.
 (3) An FET on the flight controller looks burnt. Replace the flight controller.

8. The Q4 always drifts to one direction
 Calibrate the accelerometer as follows:

(1) Before calibration the accelerometer, make sure that the propellers, motors and body are in good condition with the battery fully charged.
 (2) Refer to point 5.2 **ACCELEROMETER CALIBRATION**
 (3) If the Q4 still drift to one side, set it on a level surface then add a few sheets of paper (the number of sheets will vary depending on the amount of drift) to the side of the Q4 that drifts. The paper will help counterbalance and create a level offset angle.



9. The camera can't record.
 1) The SD card can't be read by the Q4, use brand HD SD card (2-16G, class 4-6). Don't use any copycat SD card.
 2) The camera module is un-functional, change a new camera module.
 3) Format SD card in the computer.

H111C SPARE PART CHART

