

2.4G MINI MULTIFUNCTIONAL FOUR AIRCRAFT

INSTRUCTION MANUAL



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1.SAFETY NOTES

CAUTION

****Your Nano Drone Quadcopter is a toy,but is not suitable for children under 14 years old****

- If you don't have knowledge of how to fly it,please contact someone who knows how, and at all times operate under adult supervision.
- The safety instructions are intended not only for the protection of the aircraft,but also to protect your own safety and that of others.
- Improper operation can cause injury and property damage.

CAUTION

SPECIALLY DESIGNED FOR INDOOR & OUTDOOR USE

- This product is suitable for indoor and outdoor use.
- Please make sure you choose a flight area with no obstacles and maintain a safe distance from people and pets.
- Do not operate near power lines.

CAUTION

PREVENT FROM GETTING WET

R/C models are composed of many precision electrical components.It is important to keep the model and associated equipment away from moisture and other contaminants.The introduction or exposure to water or moisture in any form can cause the model to malfunction or crash.

****DO NOT OPERATE OR EXPOSE TO RAIN OR MOISTURE.**

CAUTION

PROPER OPERATION

To avoid a potential fire hazard from batteries, please do not short, reverse polarity or puncture batteries. Battery charging should be done under adult supervision at all times, and at a location out of reach by children.

•DO NOT MIX NI-CAD & ALKALINE BATTERIES

CAUTION

SAFETY NOTY FOR NI-MH BATTERIES

- Make sure the batteries are installed correctly to ensure correct polarity(+ -).
- DO NOT MIX NI-CAD & ALKALINE BATTERIES**
- If you do not plan in using you quadcopter for extended periods of time,remove the batteries from the controller to avoid battery leakage which may damage the transmitter.
- PLEASE DISPOSE DEPLETED BATTERIES ACCORDING TO LOCAL LAWS AND ORDINANCES.**

CAUTION

SAFETY NOTE ON LI-POLYMER BATTERIES

- Li-Polymer batteries have higher operational risks compared to other batteries,thus it is imperative to follow proper operational guidelines.Manufacturer and dealers assume no liability for accidental damages caused by improper usage.
- DO NOT use any other charger other than the supplied charger to avoid potential fire or explosion.
- DO NOT crush,disassemble,turn,or reverse polarity.
- Avoid metallic materials coming into contact with battery's polarity,which could cause a short.
- **NEVER PUNCTURE BATTERIES,WHICH COULD CAUSE POTENTIAL FIRE HAZARD.**
- Battery charging should be done under adult supervision at all times, and at a location out of reach by children.
- Please stop the use or charging of the battery should there be an unusual increase in the battery temperature after use.Continuous use of this battery may cause it to expand,deform,explode or even result in potential fire hazards.
- PLEASE DISPOSE DEPLETED BATTERIES ACCORDING TO LOCAL LAW AND ORDINANCES.**
- DO NOT DISPOSE IMPROPERLY**
- **DO NOT CHARGE BATTERIES OVERNIGHT**

CAUTION

KEEP AWAY FROM HEAT

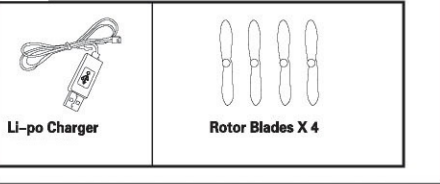
R/C models are made from various forms of plastic is very susceptible to damage or deformation due to extreme heat and cold temperatures.Make sure not to store the model near any heats or adverse temperatures.

CAUTION

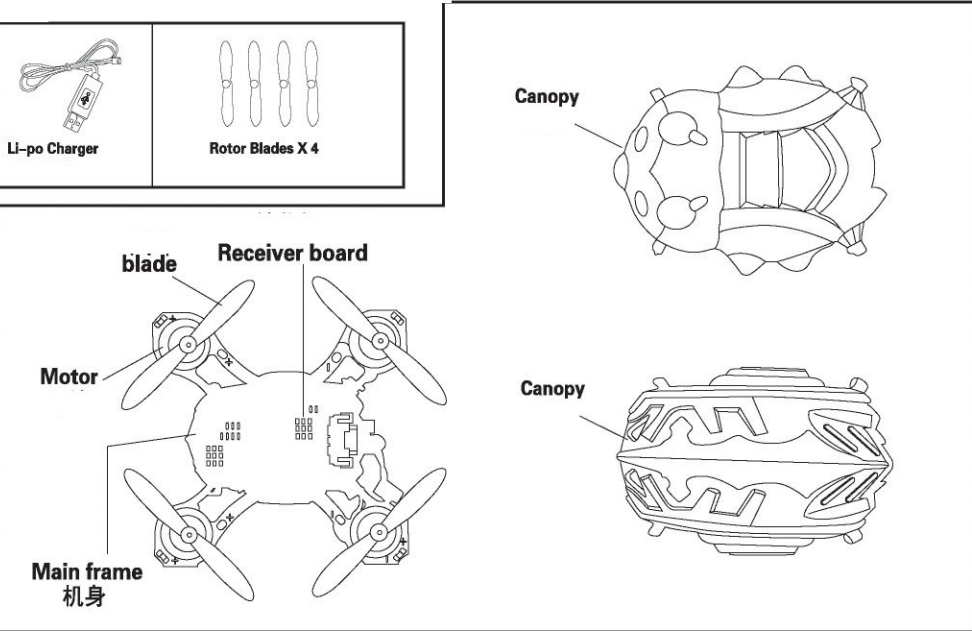
OBTAIN THE ASSISTANCE OF AN EXPERIENCED PILOT

Your Nano Drone Quadcopter is a toy, but is not suitable for children under 14 years old.In the beginning there will be a slight learning curve until you become a proficient pilot.It is advisable to obtain the assistance of an experienced pilot to help you through this period.

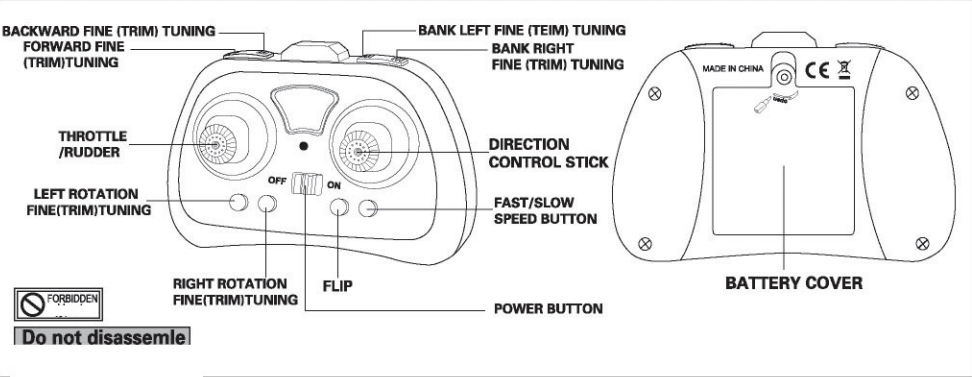
2.STANDARD EQUIPMENT



3.QUADCOPTER DIAGRAM



4.CONTROLLER DIAGRAM



5.TRANSMITTER BATTERY INSTALLATION

Step 1

Please use a screwdriver to to open the battery cover

Step 2

Please use 4 ~ " AAA " batteries. Make sure the batteries are installed in the correct direction as indicated in the controller. **DO NOT MIX BATTERY**

CAUTION

DO NOT DISASSEMBLE

6.CHARGING BATTERIES

Use the supplied charging cord to charge the quadcopter

****Use ONLY the supplied USB cord for charging.**

WARNING

Battery charging should be done under adult supervision at all times.

CAUTION

LED Indicator LED 表示

Red light on	Red light off
Charge Completion	Charging

Charger Specifications

Input	Charging Current	Full Voltage
5V	350MAH	4.2 ± 0.03V

7.BATTERY AND CHARGER SPECIFICATION

Battery usage and charge duration reference				
Battery type	ITEM NO.	Battery Specification	Usage Duration	Charge Time
Li-po battery	HY850	3.7V 145mAh	Helicopter flight time	Approx. 30 Minutes (Charging current approx.0.35A)
	HY852	3.7V 300mAh		
Carbon-Zinc (Non Rechargeable)		1.5V (GP 15G R4P)	Transmitter Operation Time	18 Hours
				Non Rechargeable

8.BINDING OF RADIO TRANSMITTER AND RECEIVER

Step1

Turn ON aircraft using switch on bottom side. Place the aircraft on a flat surface (do not move the aircraft during the binding process) to ensure the gyroscope is centered.

Step2

Turn the controller power button to the ON position. The LED light will flash.Wait 5 seconds and the bind has been established.

Push the throttle stick from the lowest position to the highest position, and then back to the lowest position. When the flashing light turns solid, the bind is complete.

Step3

After flying, turn the power switch on the transmitter to the OFF position (Power light will turn off) and also turn the power switch on the bottom side of the aircraft to the OFF position (Lights will turn off) indicating all systems are now powered OFF.

Step4

Turn off the transmitter. If the transmitter is not going to be used for an extended period of time, please remove the batteries and store properly.

WARNING

Warning! If the "AAA" batteries are left in the transmitter, potential leakage could occur which may damage the transmitter and possibly create a fire hazard.

9.FLIGHT ADJUSTMENT AND SETTING

PLEASE PRACTICE SIMULATION FLIGHT BEFORE ACTUAL FLYING

Before flying your Nano Drone Quadcopter, it is important to read the instruction manual carefully and understand the basic flight controls. The first basic flight action to practice is hovering. (Aircraft should stay in a fixed position in front of pilot.) The pilot should stand approximately 5 feet behind the aircraft.

Mode	Illustration 图示	Mode	Illustration
Left side/right side	Move right, Move left	Throttle	Ascent, Descent
Forward/Backward	Fly backward, Fly forward	Rudder	Turn left, Turn right

FLIGHT ADJUSTMENT AND NOTICE FOR BEGINNERS

CAUTION

- Check if all connections and canopy is secure.
- Check to ensure transmitter and aircraft are fully charged.

When arriving at flying site have both aircraft and transmitter

STEP 1 THROTTLE CONTROL PRACTICE

When the Quad begins to lift-off the ground, slowly reduce the throttle to bring the quad back down. Keep practicing this movement until you can control the throttle smoothly.

STEP 2 AILERON AND ELEVATOR CONTROL PRACTICE

1.Raise the throttle stick.
2.Practice flying the quad as below... Forward,backward,left,right, and then slowly move the direction stick back to it's original center position.

STEP 3 RUDDER CONTROL PRACTICING 方向舵操作练习

1.Slowly raise the throttle stick.
2.Move the nose of the quad to the right or left, and then slowly move the rudder stick in the opposite direction to fly back to it's original position.

STEP 4

After you are familiar with the actions from step 1 to 3, draw a circle on the ground and practice flying within the circle to increase your accuracy.

ⓐ You can reduce the size of the circle as you become more familiar with controls reflexes get better.

STEP 5 DIRECTION CHANGE AND HOVERING PRACTICE

After you become familiar with step 1 to 4, standing on the side of the quad and continue practicing step 1 to 4. Then repeat this step by standing in front of the quad.

ADJUSTMENT OF EACH TRIM

Slowly raise the throttle stick, and just as the quad begins to lift off the ground, you can use the trim to correct the action if the quad leans in a different direction.

1.Adjustment of the rudder trim
Just before the quad lifts off, and the nose leans to the left or right... If it leans to the right, press button ⓐ. If it leans to the left, press button ⓑ.

2.Adjustment of elevator trim
Just before the quad lifts off, and the nose leans forward/back... When quad leans forward, press button ⓒ. When quad leans backward, press button ⓓ.

3.Adjustment of aileron trim
Just before the quad lifts off, and the nose leans left/right... When leans right, press the button ⓔ. When leans left, press the button ⓕ.

Stable, flexible flight ways, makes 3D Flipping easy.

3D FLIP Roll

When you press button ⓐ, the red light on the transmitter will flash fast, denoting you are in 3D FLIP mode.

When in 3D FLIP mode, move the direction stick left or right and quad will flip in whatever direction you want. ⓑ

Switch between Fast/Slow mode

Press Fast /Slow speed button to toggle between fast or slow quad speed.

★Note: If the quad moves erratically, it may need to be calibrated. Turn the controller and the quad off. Wait 5 seconds, then turn the quad back on and then turn the controller on while holding down the F/S Button. The light on the controller will blink and the lights on the quad will blink. When the lights on the quad stop blinking for 2 seconds, the calibration is complete.

10.TROUBLE SOLVING DURING FLIGHT

Situation	Probable Cause	Fix
1 Receiver status LED blinks continuously for more than 4 seconds after quad battery is inserted. No response to control output. 接收器与接收器未对接成功, 操作无反应	Unable to bind to transmitter. 遥控器与接收器未对接成功	Repeat the power up initializing process. (Refer to P.8.Binding of transmitter and receiver)
2 No response after battery is connected to quad.	1.Check power to transmitter and receiver. 2.Check transmitter and receiver voltage. 3.Poor contact on battery terminals.	1.Turn on transmitter and make sure quadcopter battery is inserted properly. 2.Use fully charged batteries. 3.Re-seat batteries if needed to ensure good contact.
3 Motor does not respond to throttle stick, receiver LED flashes.	Quadcopter battery depleted.	Fully charge the battery or replace with a new or fully charged one.
4 Main does not respond to throttle stick, receiver LED flashes.	Throttle trim accidentally increased during flight.	Confirm throttle trim is centered or slightly below.
5 Main rotor spins but unable to take off.	1.Bent rotor blades. 2. Quadcopter battery depleted.	1.Replace any bent or damaged rotor blades. 2.Fully charge the battery or replace with a new or fully charged one.
6 Quad has strong vibration	Bent rotor blades.	1.Replace any bent or damaged rotor blades.
7 Quadcopter still wanders forward after trim adjustment during hover.	Forward trim increased.	Check and adjust forward/back trim.

Caution: The user is cautioned that 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.

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.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.