



AGES 14+

THE GNAT

Mini Quad Copter

USER MANUAL

AW-RCQ-MINI

Please read the instruction manual carefully before operation.

Safety Guide of Lithium Battery



Warning

Under the condition of non-operation, charging to the lithium battery may cause fire or injury or loss of property. The user should understand the hidden risks associated with this kind of product. The manufacturer or sales agent or retailer who making or selling this product takes no responsibility for any accident arising from this. Please read carefully the safe guidance and charging instruction before using this product.

Please charge the battery far away from the children and pets. Users under the age of 18 years old should use this product with adult supervision. Children under 14 years old should not operate.

Guarantee of the lithium battery:

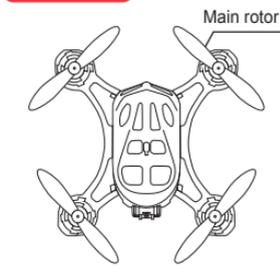
The guarantee of this product is only for the raw material and the workmanship only. However, no guarantee is given to this product. Under any circumstances, our company will not compensate the amount that higher than the retail price value.

1. It is not recommended to charge battery for an extended period of time under unattended condition to avoid fire, personal injury or even death.
2. Please use the original charger included for charging this product.
3. It is not recommended to decompose or disassemble the battery.
4. Batteries should not to be used or kept under high temperature or heat source or near any flammable product.
5. When charging the battery, covering the charger or battery is not recommended. Please keep ventilation and make sure that it should be charged under the condition of fire safety.
6. If the battery sends out any odors or gets hot or deformed or there is anything abnormal happening during the process of charging, please remove the batteries from the charging device or charger and move to a safe place outdoors (if there are batteries which appear abnormal, please DO NOT discard in trash. Please dispose of safely) so as not to cause combustion or explosion.
7. Batteries should not to be stored or transported together with the metallic object.
8. Batteries should not to be thrown into the fire or get heated.
9. Metal should not connect directly with the "+" "-" polarity of the battery.
10. You should not reverse the "+" "-" polarity of the battery.
11. If there is any battery leakage happening or electrolyte liquid mistakenly goes into the eyes, please do not rub the eyes but rinse the eyes with clear water.
12. When the battery is not used, please store it in the cool or dry environment.

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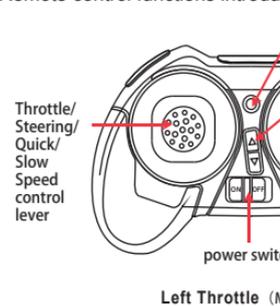
Parts Identification

THE GNAT

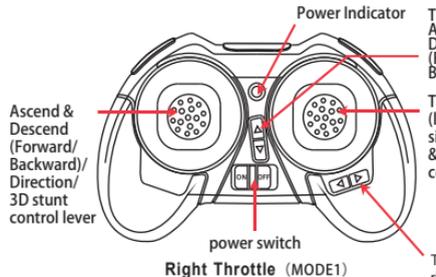


Remote Control

Remote control functions introduced



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Environment for flight

Please choose to fly in spacious indoor environment; also make sure there is no obstacles, people or animal nearby.



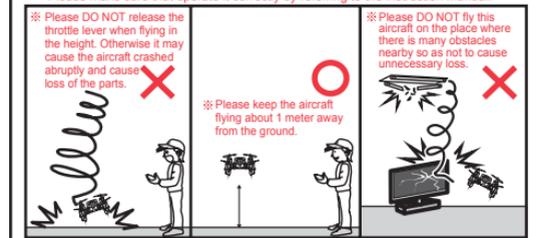
- Please make sure the flying environment is suitable for flying before flying this aircraft. When flying, please do not let your aircraft fly beyond your eye scope.
- This product should be played under the guidance of the adult when operating.

Attention

- Control scope: The flying scope of the aircraft is about 25 meters. If it is flew beyond this scope, the aircraft will lose control. Warning: The aircraft may fly beyond the flying scope if flying in the strong wind, which may result in losing control to the aircraft.

Flying time: Under the condition of mild wind and being fully charged, the aircraft can be flew within the scope of remote control. If the flying time is found less than one minute, please re-charge it.

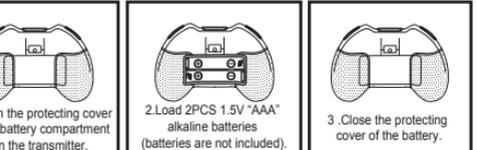
Please make sure that operate it correctly by referring to the instruction manual.



3

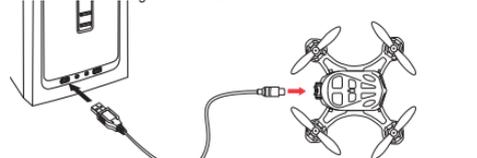
Battery installation and charge

Caution: Please load the batteries correctly as the correct polarity shown.



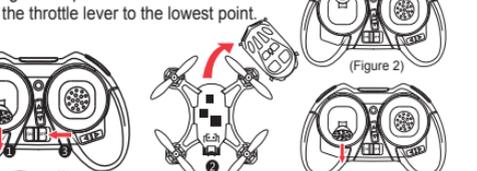
VEHICLE CHARGING

Connect the aircraft with the charging wire, then insert the charging wire into the USB port of the computer or any other USB charger. When the USB indicator is ON, that represents it is under charging. When the indicator is OFF, that represents it is fully charged. Except for Apple charger, this USB charging wire can be connected with any other charger of Smart mobile or movable power or being charged on the USB interface on the car. The voltage of the USB interface is +5+0.5V.



BEGIN TO TAKE OFF

The correct starting sequence is as below when switching on the power:



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(Figure 2)

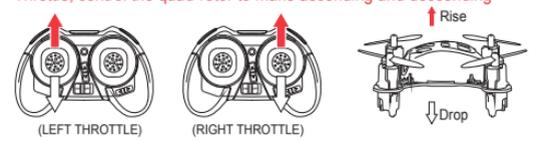
(Figure 3)

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2. Open the shell of the aircraft, switch on the power of the aircraft and then keep the aircraft on the level ground and keep static. This time the indicator of the aircraft will keep flashing.
3. Switch on the power of the transmitter, the transmitter will send out sound of "di, di", then push the throttle lever to the highest (as picture 2 shown), it will send out sound of "di" and then pull the throttle lever to the bottom (as picture 3 shown), that represents the decoding has been successfully finished. This time the indicator of the aircraft will stop flashing.

OPERATION AND CONTROL
Attention: Please avoid losing control. You should remember that you need to operate the control lever slowly when operating the quad-rotor. During the process of controlling, the quad-rotor may lose some power. Therefore, during flying practice, you need to add some extra power to keep this mini quad-rotor flying at a certain height.

Throttle, control the quad-rotor to make ascending and descending



Steering rudder, control the left rotation or right rotation of the quad-rotor



Rudder, control the forward/backward of the quad-rotor.



Aileron, control the quad-rotor to fly horizontally to the left or to the right.



Attention: When the nose of the aircraft flies toward you, the control direction will be reversing.

SENSITIVITY SETTINGS

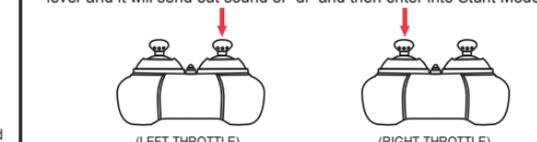
This model of mini quad-rotor can realize operating in 3 modes: Junior Level----Intermediate Level----Advanced Level
Gently press the throttle lever to enter into the setting mode:
When hearing one sound of "di" sending out from the buzzer on the transmitter= the mini quad-rotor enters into the Junior Mode (sensitivity degree can reach 30%)
When hearing two sound of "di, di" sending out from the buzzer on the transmitter= the mini quad-rotor enters into the Intermediate Mode (Sensitivity degree can reach 50%)
When hearing three sound of "di, di, di" sending out from the buzzer on the transmitter= the mini quad-rotor enters into the Advanced Mode (Sensitivity degree can reach 70%)

The bigger the value of the sensitivity degree, the quicker reaction of the mini quad-rotor will be, vice versa.



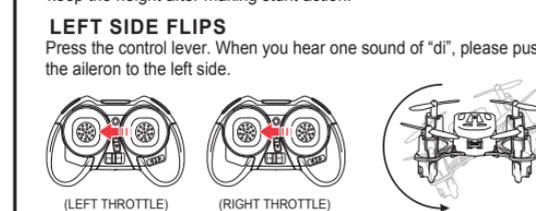
AERIAL TUMBLING SKILLS

3 modes can all be used to perform stunt action in the air, press the control lever and it will send out sound of "di" and then enter into Stunt Mode.



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LEFT SIDE FLIPS
Press the control lever. When you hear one sound of "di", please push the aileron to the left side.



RIGHT SIDE SOMERSAULT

Press the control lever. When you hear one sound of "di", please push the aileron to the right side.



FRONT FLIPS

Press the control lever. When you hear one sound of "di", please push the Ascending & Descending control lever forward.



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BACK FLIP

Press the control lever. When you hear one sound of "di", please push the Ascending & Descending control lever backward.



Trimmer

Backward trimmer	Forward	Backward trimmer
Forward trimmer	Backward	Forward trimmer
Left Flying trimmer	Left Flying	Left Flying trimmer
Right Flying trimmer	Right Flying	Right Flying trimmer

ACCELERATOR ALIGNMENT

When the quad-rotor appears unstable flying performance or fly to one direction in a quick drifting speed, this time you need to calibrate the accelerometer.

1. After finishing the decoding between the aircraft and the transmitter, please place the aircraft on the level ground.
2. Please set it at the sensitivity degree in the senior mode, then pull the throttle lever to the lowest position.
3. Push the throttle/steering rudder control lever to the left down corner, push the Ascending & Descending/aileron control lever to the left up corner, this time the indicator of the aircraft will be flashing for 1-2 seconds, that represents the calibration is successfully finished. (left-hand throttle)
4. Push the Ascending & Descending/steering rudder to the left up corner, push the throttle/aileron control lever to the left down corner, this time the indicator of the aircraft will be flashing for 1-2 seconds, that represents the calibration is successfully finished. (right-hand throttle)

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Note: If the aircraft still keeps drifting to one direction, you can put it on a level surface. Pad several pieces of paper on the deviating direction (The paper quantity required is dependent on the drifting extent in order to adjust the deviating angle of the accelerometer).

MOTOR PROTECTION AND ACTIVATION
During the course of flight, in the case of a collision or any other reason which causes the propeller to jam, the battery protection board of the aircraft will power off automatically so as not to cause damage to the motor. If the battery is fully charged, you can switch off the power and just restart it. If the aircraft is not connected with the power after being restarted, it means the battery power is not enough to activate the battery. You can use the original USB charging wire to connect with the power and then simply activate it.

Common Breakdown Maintenance of the R/C aircraft

Troubleshooting	Repair method
The main rotor won't be rotating/ deviate when taking off	Reload the batteries inside the aircraft and make decoding once again. If this problem still can not be solved, please check if the propeller or rotor is deformed or not. If it is severely deformed, please replace it accordingly.
It can not take off	If there is insufficient power with the aircraft, please recharge it. If the problem still can not be settled, please kindly calibrate it correctly by following the (accelerator calibration) written in the instruction manual.

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