



## Ornithopter Instructions (ROC1215003-A/B/C)

RocSky Technology Co.,Ltd.

Website: www.rocsky.cn

Address: Building A, No. 2, Tongfuyu Industrial Zone, Shabo Community,  
Pingshan New District, Shenzhen

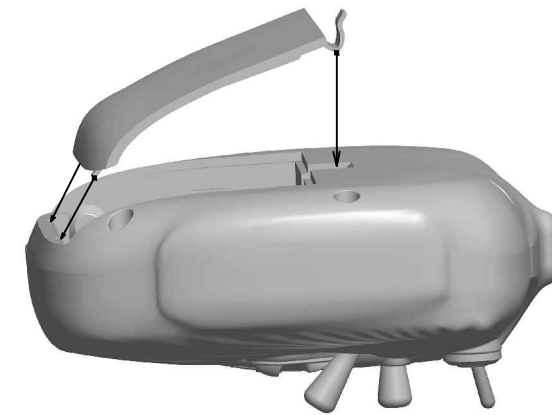
Tel: +86-755-89924408

E-mail: rocskyqian@126.com

Thank you for using Rocsky's ROC1215003-A/B/C wireless remote control ornithopter. For proper use of this product, please read the instructions carefully.

### Product list

- Ornithopter 1 set ( include body , wings & empennage);
- lithium battery 1 pc;
- Charger 1 set;
- Remote control 1 set;
- Hexagonal screwdriver 1 pc;
- Instruction Manual 1 set.
- Glue 1 pc;



(Figure 2)

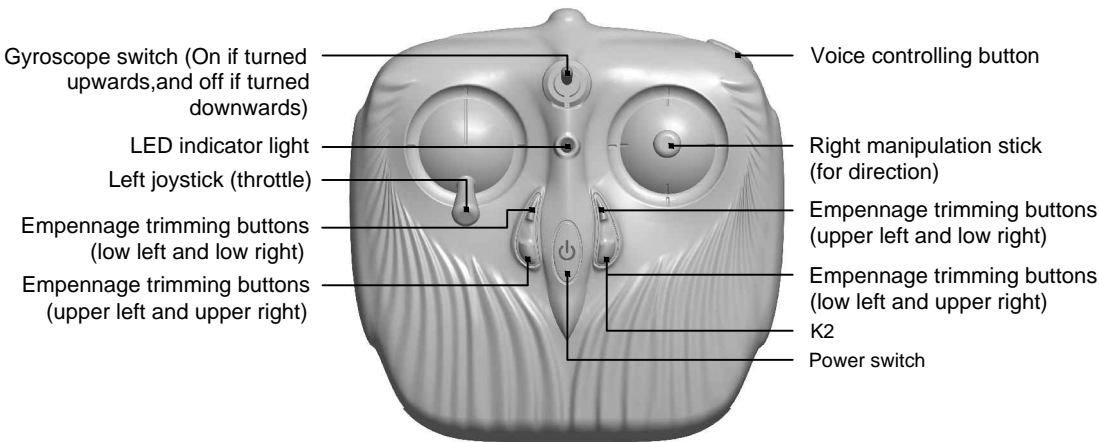
### Major parameters of the remote transmitter:

- |                           |                              |
|---------------------------|------------------------------|
| Power supply: AA 1.5V * 3 | Control distance: 300 meters |
| Frequency: 2.4G           | Duration: 3 - 4 hours        |

### Major Parameters of the Remote-control Receiver:

- |                                  |   |
|----------------------------------|---|
| Power supply: 2S 15C 7.4V 500MAH | Length: 51cm                                |
| Frequency: 2.4G                  | Weight: 200g                                |
| Power: 20W                       | Control distance: 300 meters                |
| Wingspan: 77cm                   | Flying time: 8 - 12 minutes (for reference) |

(3)

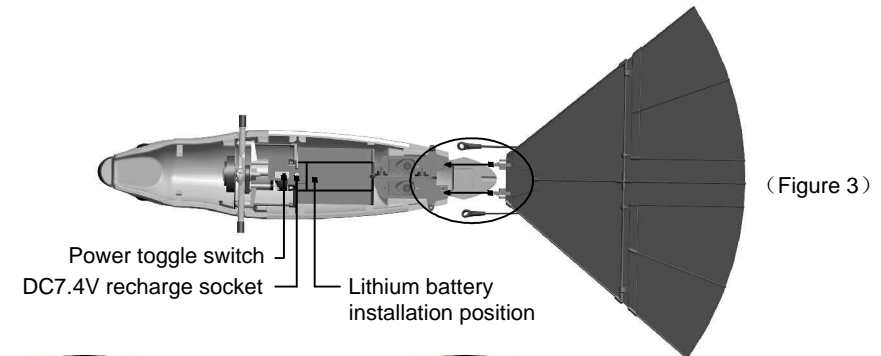


(Figure 1)

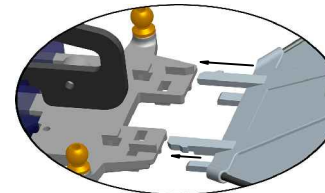
### Transmitter Operating Instructions

- (1) Trimming back to medium model: press the K2 button and the power button at the same time, and release the K2 button when the LED indicator light turns from quick flickering to lighting or slow flickering (when the battery runs low, the LED indicator light flickers slowly);
- (2) Pairing: long press the power button and the LED indicator light will flicker quickly; when the light flashes up, the pairing is completed (pairing time is about 5 seconds);
- (3) In low-battery setting, the pressure is about 3.7V; when the battery runs low and the LED light flickers slowly, please replace the battery;
- (4) The remoter will turn off automatically if it is not used for a long period (about 5 minutes);
- (5) Press the power button for three seconds to turn the remoter off.

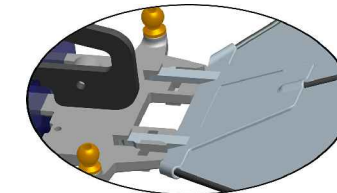
(2)



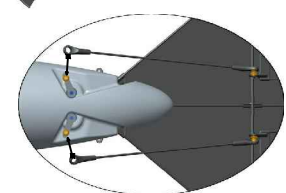
(Figure 3)



(Figure 4)



(Figure 5)

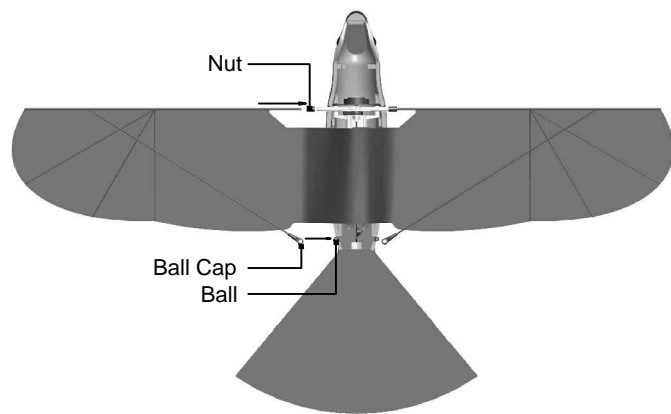


(Figure 6)

Installation of the empennage: open the upper shell of the body (as shown in Figure 8); Insert the empennage into the frame at the end of the body according to the arrow in Figure 4 (as shown in Figure 5); Stick the magic tapes on the empennage and the upper and lower shell of the body (as shown in Figure 8); Put the two ball links of the empennage to the ball of the rockshaft (as shown in Figure 6).

Replacing the battery: pull open the upper shell of the body (as shown in Figure 8); replace the battery as shown in Figure 3; put on the upper shell of the body.

(4)



(Figure 7)

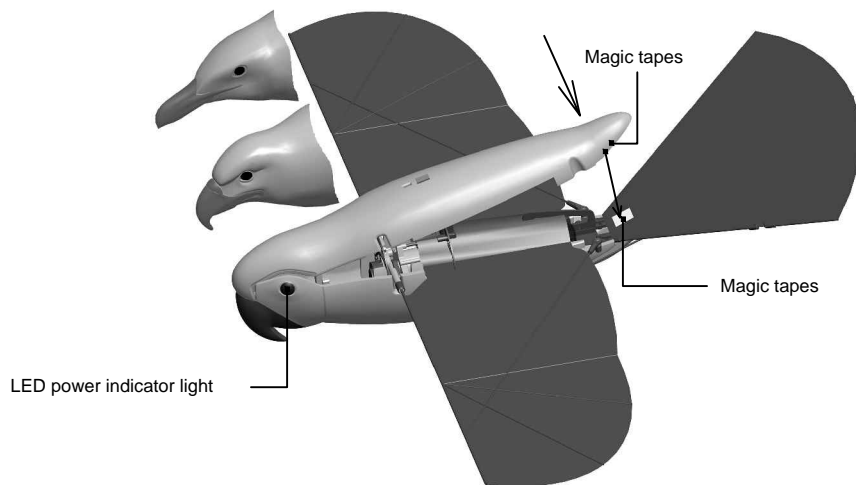
**Installation of wings**

(1) Pull apart the upper shell of the body;(2) Unscrew the nuts on the rockshaft;(3) Place the wings onto the button of the upper shell (as shown in Figure 8);(4) Insert both wings into the rockshafts;(5) Put the ball link of the rear end of the wing into the ball of the body;(6) Adjust the wings to keep the two sides balance;(7) Screw the nuts on the rockshafts;(8) Close the upper shell of the body (as shown in Figure 8).

**\* \* \*Notice\* \* \***

- (1) The wings must be inserted to the bottom of the rockshafts to avoid flying problems caused by imbalance of the two sides when flapping, and damage to the wings as well;
- (2) Two wings must be adjusted to achieve balance, or else the aircraft may jitter during flying;
- (3) The nuts should be screwed tight, or the wings may move outwards and cause problems during flying.

(5)



(Figure 8)

(6)

**Operating steps**

- (1) Assemble the empennage, which cannot be taken off after assembling (please refer to page fourth for more details);
- (2) Assemble the wings (please refer to page five for more details);
- (3) Switch on the toggle switch of the power of the ornithopter (as shown in Figure 3);
- (4) Place the throttle stick to the lowest position, and long press the power button until the LED indicator light flickers (note: make sure the throttle stick placed at the lowest position, or else it would be unable to turn on the machine);
- (5) Now the remoter and the ornithopter are being paired; after successful pairing, make both sides of the empennage parallel to each other and slightly tilted upwards;
- (6) Slowly push the throttle stick to about 70%, and lightly throw out the ornithopter; when the flying is steady, slightly pull back the throttle.

**Maintenance**

Wireless remote-control aircraft is easily affected by factors such as the size of flying site, the power of wind, the direction of wind, and the skills of handlers. Therefore, there may be damage of different degrees; please read the following content carefully before using the product, to make sure that it will be properly maintained when there is damage.

- (1) Fractures in the outer shell appear when the model crashes into hard surfaces (such as walls and grounds). Please splice the pieces with the glue provided by the company. Please clean the fracture before applying the glue, and splice the pieces after 1 minute. The flying of the model will not be affected after splicing;
- (2) Fracture or deformation of supporting frame is caused by strong crashes of the outer shell; if any piece of the frame falls off, please take it out;
- (3) A damaged wing is caused by direct crash of the wing to hard surfaces (such as walls and grounds); if any damage to the wing is found, please contact us.

(7)

**Notice**

- (1) Once the remoter is successfully paired to the ornithopter, improper operator might result in hurts to the handler;
- (2) Not suitable for children under the age of seven;
- (3) Do not fly the ornithopter near dangerous objects such as vehicles, overhead wire, waters, buildings, and trees to avoid losses of and damage to the machine;
- (4) Please fly the ornithopter in places where there are few or no people to avoid crashing into others;
- (5) Since the model is controlled by wireless signals, which are liable to be interfered by other signal resources, it is easy to go out of control;
- (6) During the flight, if the throttle stick is pushed to 100% while the flapping frequency gradually declines, please make sure that the model flies back and lands, or else it may explode due to lack of power;
- (7) When the battery runs low, please recharge it with the recharger provided by the company, or replace it (as shown in Figure 3);
- (8) Please cut off the power, take out the battery, put it in a sealed bag, and place it in shade, if the product is not used for a long period;
- (9) Overcharge and overdischarge are prohibited (the green light on the recharger means that the battery is fully charged); please do not use the battery if there is any bump.

**Regulations on Low-Frequency Electric Wave Radioactive Electrical Equipment**

Article 12: Without license, any producer, seller, or user shall not change the frequency, increase the power, or alter the designed performance of any accredited low-frequency electrical equipment.

Article 14: The use of radio frequency equipment shall not influence aviation safety or interfere with legal communications; if any interference is found, the machine should be improved to make sure that no interference is produced before it is used again; "legal communications" aforesaid refers to wireless communications operated according to laws on communications. Low-frequency RF electrical equipment shall endure the interference from RF electrical equipment for legal communications industry, science, and medical use.

(8)

**FCC STATEMENT :**

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.

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.

**RF warning statement:**

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.