NEO-CAGE™

Pilot's Handbook for
NEO-CAGE™
RC MINI DRONE

Age **14 +**

High/Low Speed mode selector
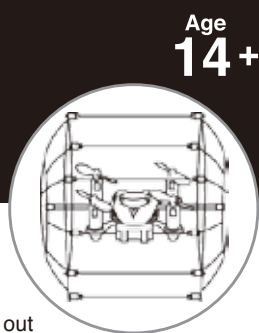
Thank you for your purchase of Protocol's **Neo-Cage RC Mini Drone.** You are about to experience the best of what remote control flight has to offer. We strongly recommend that you take the time to read this manual thoroughly. It contains many tips and instructions on how to get the most out of this aircraft and maintain it for a long life.

As with any aircraft, this is a precision flying machine. Treat it well and enjoy all the fun it has to offer, flight after flight.

SCHEMATIC
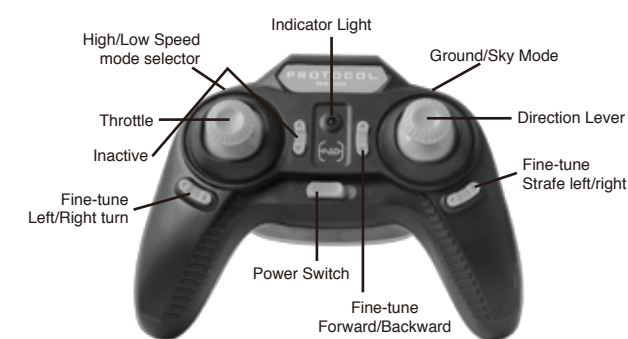
Cage

Rotor

Canopy
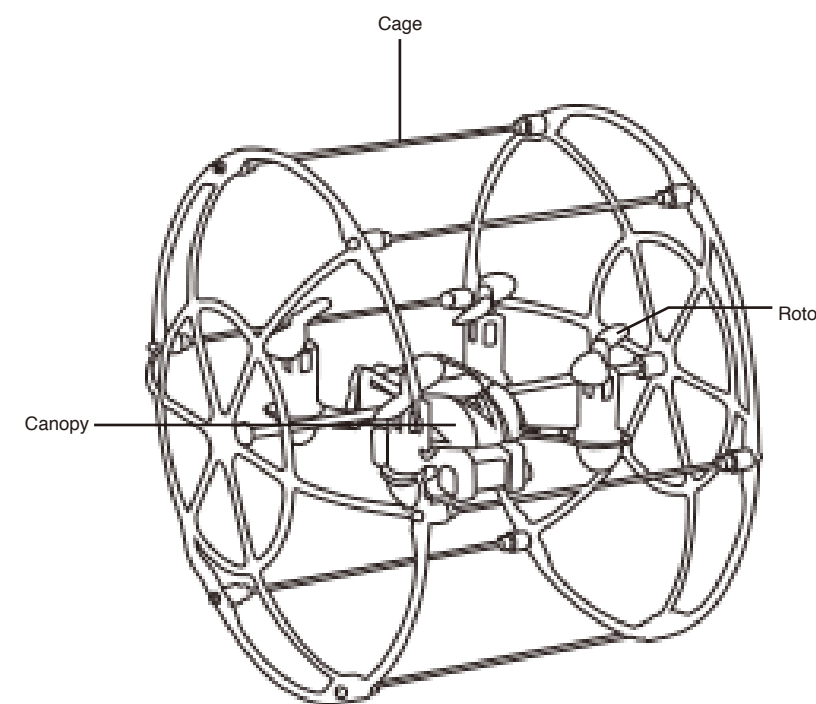
FEATURING:
1. Four-rotor design allows great speed and maneuverability for both Indoor and Outdoor use.
2. Built-in 6-axis gyro ensures excellent stability.
3. Modular design for increased ease of maintenance.
4. 360 degree dimensional stunt and tumbling function.

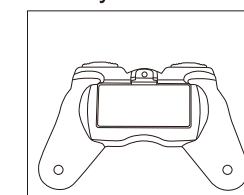The materials and specifications stated in this instruction manual are for reference only.

PROTOCOL

SAFETY AND PRECAUTIONS

1. Keep small parts out of reach of children to avoid accidents.
2. The quad-copter is powerful and fast; accelerate gently to avoid damage and accidents.
3. After flying, disconnect the battery.
4. Keep the battery away from heat sources and / or fire.
5. Keep the quad-copter at a distance of at least 2 meters from yourself, others, and obstacles to prevent damage.
6. Children should operate the quad-copter only under adult supervision.
7. The remote controller batteries can not be recharged. Do not mix new batteries with old batteries or mix batteries of different types.
8. Always turn off both the transmitter and quad-copter when not in use.
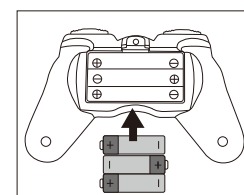9. Never attempt to short-circuit the battery terminals or the quad-copter.

TRANSMITTER

High/Low Speed mode selector
Indicator Light
Ground/Sky Mode
Throttle
Direction Lever
Inactive
Fine-tune Strafe left/right
Fine-tune Left/Right turn
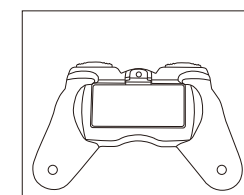Power Switch
Fine-tune Forward/Backward

Battery installation

Take out the cover
Install 3 x 'AAA' battery according to the correct polarities.
Replace the cover

1. Install batteries carefully.
2. Do not mix old and new batteries.
3. Do not mix different types of batteries.

CHARGING THE QUAD-COPTER BATTERY

1. Make sure the quad-copter is turned off.
2. Connect the USB charging cable to the quad-copter.
3. Plug the charger into a USB port. The USB light will turn off while charging and will turn on once fully charged.

Charging time: approximately 45 minutes --- Flying time: approximately 5-6 minutes

CAUTION WHEN CHARGING

1. When charging, place product on a dry, well-ventilated surface and keep away from heat sources.
2. Always use adult supervision while charging.
3. In order to increase battery longevity, avoid repeat charging and excessive discharging.
4. As battery temperature is high immediately after flight, charge after cooling down for higher efficiency.
5. Do not strike or subject battery to hard impacts or sharp surfaces.
6. Do not use any other charger than that which is supplied with this item.
7. Do not use or leave battery near a heat source such as fire or space heater; exposure to heat may result in reduced performance or in some cases dangerous conditions.
8. If battery is left in charging state for an extended period of time after being fully charged, the battery may automatically discharge.
9. Never leave the battery unattended during charging.
10. Do not disassemble battery.
11. Do not submerge battery in water.

FLYING THE QUAD-COPTER

1. Turn on the quad-copter by plugging the battery into the wire on the drone.
2. Turn on the remote control.
3. Indicators on the quad-copter will flash. Push the throttle lever to the highest position, and then pull it back to the lowest position. There will be two beeps from the transmitter. This shows that the quad-copter has synced with the remote.

Tips: When syncing your quad-copter keep it in a horizontal position for stable flight.
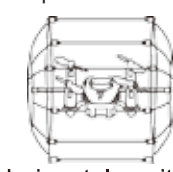
Horizontal position

NOTE:
1. If the Neo-Cage and the remote do not sync after following the checklist, reverse steps 1 and 2 of the process. Turn the remote and the quad-copter off. Then, turn on the remote first and then the quad-copter.
2. Turn on the controller; if, after 30 seconds, it has not recognized the helicopter, turn off the controller to retry synchronization.
3. If the Neo-Cage is unsteady in flight, it may not have been able to calibrate horizontally. Power down both vehicle and remote and restart pre-flight procedure.
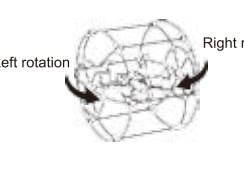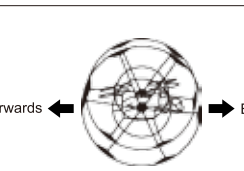
FLYING THE NEO-CAGE (DEFAULT)

Up
Down
Push the throttle up or down, the quad-copter flies upward or downward.
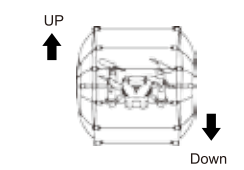
Left rotation
Right rotation
Pull the throttle left or right, the quad-copter turns to the left or right.

Forwards
Backwards
Push the direction lever up or down, the quad-copter flies forward or backward.

Right movement
Left movement
Pull the direction lever to the left or right, the quad-copter banks to the left or right.
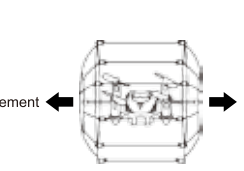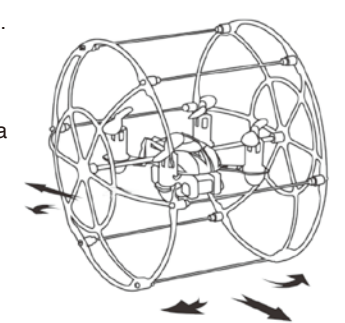
GROUND MODE

Press the Ground/Sky button until you hear a beep.
Push the throttle to move forward.
Push the direction lever to turn left or right.
*Push the Ground/Sky button again until you hear a beep to return to flight mode.

HIGH-LOW SPEED MODES

The Neo-Cage features 2 speed modes. Low speed is for beginners and high speed is for advance users. The default speed is low-speed.
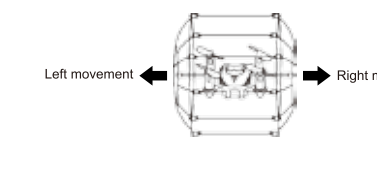
Press the speed mode button to change speeds.

High/Low Speed mode selector

TRIM ADJUSTMENT

Sideways Trim
When the quad-copter veers to the left or right side unintentionally, you can correct it by pressing the trim button in the opposite direction until it evens out.

Left movement
Right movement

Forward/Backward Trim
When the quad-copter veers forward/backward unintentionally, you can correct it by pressing the trim button in the opposite direction until it evens out.

Forwards
Backwards
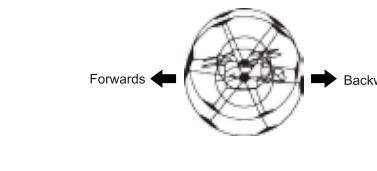
Left/Right Turning Trim
When the quad-copter spins left or right unintentionally, you can correct it by press the trim button in the opposite direction.

Toss N' Launch
Thanks to the 6-axis gyro, you can toss the quad-copter and push the throttle up. It will automatically level out and hover smoothly in the sky.

TROUBLESHOOTING

Symptom	Possible Cause	Potential Solution
Neo-Cage does not respond	1. Communication between controller and aircraft was not synchronized during set up 2. Battery power depleted on aircraft, controller or both.	1. To synchronize, turn on controller, then turn on aircraft and place it on level ground. 2. Charge aircraft and/or replace batteries in controller.
Response to control inputs intermittent or erratic	1. Controller battery power nearly depleted.	1. Replace batteries in controller.
The Neo-Cage will not hover or strafe correctly	1. The aircraft was not on level ground during synchronization. 2. Trim settings are incorrect.	1. Re-synchronize aircraft and controller. 2. Reset the trim buttons on the controller and re-trim flight controls.

Replacement Parts:

Thank you for your purchase of Protocol's **Neo-Cage RC Mini Drone!** We know that accidents can sometimes happen which is why we offer a spare parts kit available on our website **ProtocolNY.com.**

Limited Warranty:

At Protocol, we're dedicated to bringing you innovative and well-designed products that make living fun and easy. We stand behind all of our products and warrant this to be free from defects in workmanship and materials for 30 days from the date of purchase. The warranty does not cover transportation damage, misuse, accident, or similar events. Specific legal rights pertaining to this warranty may vary by state.

For service claims or questions, please consult our website **ProtocolNY.com.**