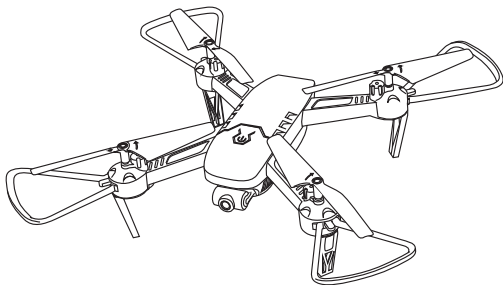




14+
for age

PRO16/PRO16+

INSTRUCTION MANUAL



2.4G HD FPV DRONE WITH AUTO-HOVERING



FPV STREAMING



WIDE ANGLE
720P CAMERA
(PRO16+ model only.)



AUTO-
HOVERING



14 MINUTES
FLYING TIME
(PRO16+ model only.)

Always fly your drone safely and legally. Learn the rules and regulations in your airspace and always follow them.

INTRODUCTION

Thank you for purchasing the PRO16/PRO16+ Drone. Please read all instructions and warnings carefully before operating. Please also keep this instruction manual for future reference and maintenance.

IMPORTANT:

1. This drone is not a toy. It may cause injury or damage if not used properly under a controlled environment. Always make sure you practice flying this drone in an open airspace area while following the rules and regulations which applies to the area to avoid any potential damage or Injury.
2. This product is suitable for experienced UAV pilots no less than 14 years of age.

SAFETY PRECAUTIONS:

1. Keep it far away from any structures or crowds.
This R/C drone may vary slightly in speed or sensitivity while flying and can cause potential danger. Therefore, please keep it far away from crowds, buildings, trees, structures, high-voltage wire, etc. Please also avoid flying in adverse weather conditions such as rain, electrical storms, and high winds to ensure safety of the user, any spectators, and surrounding property.
2. Keep it away from any moist environment.
The inside of the drone is composed of many precision electronic and mechanical parts. Therefore, please try to avoid any moisture or water content from entering the main body of the drone as it may cause a breakdown of the mechanical and electronic parts and thus cause an accident.
3. Only operate with included parts for intended use.
Always use original parts made and authorized by RC-PRO for replacements and maintenance to insure flight safety.
DO NOT use for any illegal purpose or use beyond the scope of which your local laws and regulations have stipulated.
4. Do not operate under the influence of drugs or alcohol.
Please operate this R/C drone according to your own state and flying skill. Any fatigue, bad mental state, or incorrect operation may increase the probability of accidental risk.
5. Store it in a cool, dry place.
The R/C drone is composed of material such as metal, fiber, plastic, electronics, etc. Therefore, please keep it away from any heat source and avoid prolonged exposure to direct sunlight. Excessive heat exposure can cause distortion and damage.

WARNING

DO NOT operate drone in a crowded area. Unexpected conditions, technical issues or improper assembly may cause unplanned manoeuvring, which can cause serious injury and/or property damage. The operator of this product accepts all responsibility for any damages caused by its misuse.

1. KEEP AWAY from people and obstacles including high-rise buildings, high voltage wires, etc.
2. DO NOT store the drone in a damp environment. The drone's interior is composed of delicate electronic components and mechanical parts, which can be seriously damaged by moisture.
Please take serious care, as this type of damage may not be visible on the outside, but can cause the product damage or act unpredictably once in use.
3. Always operate with safety in mind. DO NOT use this drone under the influence of drugs or alcohol, or in the case of fatigue, as improper operation can cause serious injury and/or property damage.
4. KEEP AWAY from rotating parts once the drone is in motion. Propeller blades can cause serious harm to people and property.
5. DO NOT store or operate in high heat, as electrical components can be damaged.
6. Small parts are included with this product. Please place it beyond the reach of the children to avoid a CHOKING HAZARD or parts being mistakenly swallowed.
7. Only the original charger made from our factory can be used.
8. Charger is not a toy.
9. Engine will heat up. Please DO NOT touch it to avoid being burned or injured.
10. Mini USB 5V wall charger recommended for charging. DO NOT use any charger stronger than 5V. (The current cannot be >1A)
11. Always operate your drone within eye sight.
12. Never fly over groups of people.
13. Never fly over stadiums or sports events.
14. Always understand and comply with airspace rules and regulations.

RECHARGEABLE BATTERY

Connect the drone battery to the charger. Plug the charger into a power outlet and fully charge (about 60 mins). **DO NOT LEAVE CHARGING BATTERY UNATTENDED.** Battery may be warm when charging is complete. Disconnect the charger from the outlet, then the battery from the charger.

BATTERY PRECAUTIONS

- Non-rechargeable batteries cannot be recharged
- Do not dismantle or short circuit batteries
- Keep batteries away from heat and flame
- Charge rechargeable batteries under adult supervision
- Remove rechargeable battery from drone before charging and when not in use
- Remove battery before cleaning
- Regularly check all wires, plugs and batteries to ensure proper performance and safety. In case of damage discontinue use until repair

Lithium Battery Safety Precautions

Our company is not liable for any damages incurred by the appropriate or inappropriate use of this product.

Warning:

Check all batteries before charging and before use. Do not use or charge damaged batteries. Do not over-charge batteries. Keep batteries away from heat and flame. Lithium is highly reactive with water; always keep batteries away from water and humid conditions. Keep out of reach of children and pets. Product should not be used by persons under 14 years of age, and should be accompanied by an adult until 18 years of age. Our company is not liable for any damages resulting from improper use or handling of the product.



WARNING: Product should only be used by adults and children 14 years and older. Adult supervision required for children under 14 years of age.

WARNING: CHARGING OF THE DRONE BATTERY MUST BE SUPERVISED AT ALL TIMES BY AN ADULT. UNPLUG THE BATTERY WHEN FULLY CHARGED. DO NOT OVER-CHARGE THE BATTERY.

MAINTENANCE

1. Use a clean soft cloth to clean this drone frequently.
2. Avoid heating or prolonged exposure to the sun.
3. Don't put the drone in water. It will damage electronic parts.
4. Please check the plug and other accessories at regular intervals. If there is any damage, please stop using it immediately until it is repaired completely.

PRODUCT PACKAGING CONTENT



Drone X1



Transmitter X1



Blade Protector X4



Battery x1



USB Charging Cable X1



A/B Blade X1



Phone Holder X1



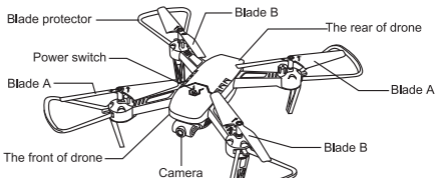
Screwdriver X1



Instruction Manual X1

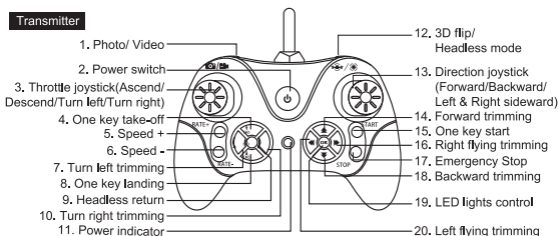
PART IDENTIFICATION

Drone



Press the battery shortly to switch on, hold for 2 seconds to switch it off.

Transmitter



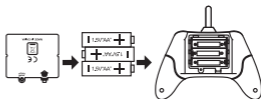
REMOTE CONTROL

1	Photo/ Video	Click once to shoot one picture by the camera on the drone. After that, the camera will quit automatically. Press the key for 2 seconds, the camera on the drone will shoot a video. Please it again from 2 seconds to quit.	11	Power indicator	Display remote control's electric quantity and give hints on various functions.
2	Power control button	Power control button, press to turn on, press again to turn off.	12	3D flip/ Headless	Click once to enter to the flip mode before automatic cancel. Press the key for 2 seconds to enter to the headless mode, and press it again for 2 seconds to quit.
3	Left joystick	Stir the joystick forward or backward to control the drone's altitude, stir the joystick left or right to control left and right rotation.	13	Right joystick	Stir the joystick forward or backward to control the drone to move forward or backward, stir the joystick left or right to control the drone to fly at left or right directions.
4	One key take-off	After starting the drone, every time it is clicked, it automatically rises by about 1.5 m.	14	Forward trimming	Assist in adjusting the drone to move forward .
5	Speed +	Press to increase flight speed. (default low speed mode).	15	Start	Press the start button, the drone blades will slowly rotate.
6	Speed -	Press to decrease flight speed. (default low speed mode).	16	Turn right trimming	Assist in adjusting the drone to fly at right directions.
7	Turn left trimming	Assist in adjusting left-handed rotation.	17	Emergency stop	Press and hold emergency stop for 2 seconds, the drone will stop urgently.
8	One key landing	During flight, click once for automatic landing.	18	Backward trimming	Assist in adjusting the drone to move backward .
9	Headless return	Press to start Headless Return feature.	19	LED lights control	Click "light control" to control the navigation light of drone(default: on).
10	Turn right trimming	Assist in adjusting right-handed rotation.	20	Turn left trimming	Assist in adjusting the drone to fly at left directions.

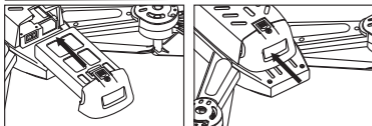
BATTERY INSTALTRALATION AND CHARGING

Battery installation of transmitter

1. Remove the battery cover.
2. Install 3 "AA" batteries, according to the correct polarity.
3. Close the battery cover.



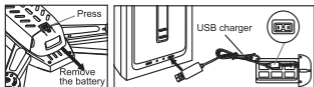
Battery installation of drone



1. Insert the battery into the body.
2. Push the battery forward to grip the body.

Lithium Battery Charging

Remove the battery from the drone, and then plug the USB cable into the USB port of the computer or other USB charger. The indicator light will be off. Connect the plug of the battery with the socket on the USB charging cable. The indicator light is on during charging, and indicator goes off when fully charged.

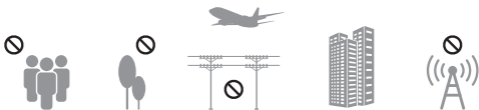


Note: The USB charging cable can be connected to most smartphone chargers or mobile power sources or USB interface in automobiles. The voltage in USB interface is $5V \pm 0.5V$. (The current cannot be $> 1A$)

CAUTIONS WHEN CHARGING:

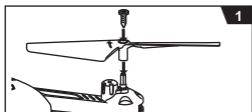
1. When charging, please put this product in a dry ventilated area and keep it far away from heat sources or flammable products.
2. When charging, it is recommended to remove the batteries from the drone. Charging process should be supervised by an adult so as not to cause an accident. The battery can also be charged while in the drone.
3. After flying, please do not charge the battery if the surface temperature is still warm. If the battery has been used for a long time, or appears to be swollen, please replace them.
4. Please make sure that you use the original USB charging cable provided.
5. A battery when not in use for a long time will lose its charge automatically. Charging or discharging too often may reduce the life of the battery.

PREPATATION FOR FLIGHT



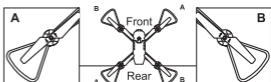
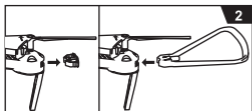
Please choose the spacious indoor or outside environment for flying, also it requires that it should be flid under the weather of non- snow or non-storm with wind force less than Level 4. When flying, please **DO** keep it far away from the crowd, tree, electric wire, skyscraper, airport or signal transmitting tower, etc.

Step 1: Blades and guards installation



Each blade of the drone is marked with "A" or "B". When install the blade, please correctly install according to the corresponding tag as shown below. When the blade is not properly installed, the drone will be unable to take off, or rollover or throw.

1. Install the blades as shown in the illustration and lock it with 1 screw.
2. Install the blade guards as shown in the illustration. First remove the blade guards cover and then install the blade guards.



Step 2: Preparing to fly

1. Connect the power plug of the drone to the lithium battery socket. Press the power button for 2 seconds and place the drone on a flat surface.
2. Please put the drone in an open space. Before flight, please make sure that the rear part of drone is pointing to you directly.
3. The camera of drone indicates the forward direction, conversely, the backward direction.
4. Turn the remote control on and push the left lever up and down, you will hear a "beep" sound and the light will stop flashing. At this point your drone is paired with the remote control and ready to fly.

Step 3: Drone calibration

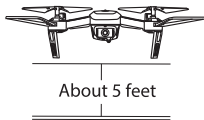


After matching the code between the drone and remote control, place the drone on a horizontal place, and push the "left joystick" and "right joystick" on the remote control until the navigation light flashes, as shown below. After the calibration is completed, the navigation light will return to normal. (When the drone is offset in any direction and trimming cannot be adjusted, this calibration can be used for repairing.)

Automatic hovering system

This drone adopts "barometer" module to achieve fixed height and hovering; use the left joystick (accelerator) to control the drone's altitude.

TAKE-OFF/LANDING/EMERGENCY STOP



! Rotating propellers can be dangerous. DO NOT start the motors when there are people nearby.

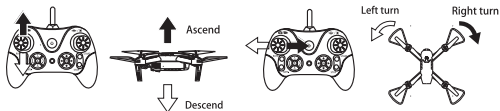
Press "START", the drone's blades will start spinning slowly then press "↑" the drone will take off at an altitude of about 5 feet. (Always keep the head of drone facing forward).

! Press "↓", the drone will land automatically. Remember to always keep your hands on the transmitter as long as the motor is still pinning.

! Hold "STOP" 3 secs for EMERGENCY STOP.

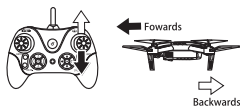
Only stop motors mid-flight in emergency when doing so can reduce the risk of damage or injury.

OPERATING INSTRUCTIONS

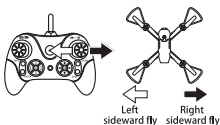


Push the **left lever (accelerator)** up and down, The drone will ascend and descends accordingly.

Push the **left lever (accelerator)** leftward and rightward, the drone will turn left and turn right accordingly.



Push the **right lever (swerving rudder)**, the drone will go forward and backward accordingly.



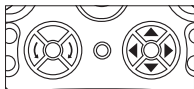
Push the **right lever (swerving rudder)** leftward and rightward, the drone will go leftward and rightward accordingly.

TRIMMING INSTRUCTIONS

Trimming is manual adjustment of the drone's flight angles. It should only be used when the drone is drifting instead of hovering in a secure space with no wind. Please follow these instructions in order to trim your drone:

1. If the drone floats forwards, the operator shall press "▼" to adjust.
2. If the drone floats backward, the operator shall press "▲" to adjust.
3. If the drone floats leftward, the operator shall pull press "▶" to adjust.
4. If the drone deviates rightward, the operator shall press "◀" to adjust.
5. If the drone spin to right, the operator shall press " (" to adjust.
6. If the drone spin to left, the operator shall press ") " to adjust.

Repeat the steps above until the drone hovers in the same spot.

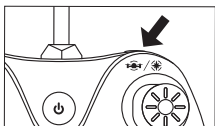


SPEED CONTROL

This drone is equipped with 3 speeds system. Upon takeoff the default speed is low, press the speed+ button and you will hear 2 beeps which indicate that the drone will transition to medium speed setting. Press the speed+ one more time and you will hear 3 beeps which indicates that the drone will transition to the highest speed setting. Press the Speed- in order to reduce the speed level.

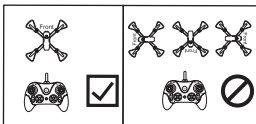
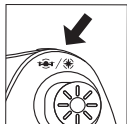
3D FLIP

Once you have mastered basic functions, try out the 3D flip function! Make sure the drone is at least 3m above the ground and shortly press the 3D flip button (as shown), then move the right lever in the direction of your intended flip (Pressing upward will flip the drone over forward, etc)




HEADLESS MODE


Please put the drone in a forward-facing position. After syncing, but before take-off, long press the Headless Mode button on the remote control and to enter Headless Mode and LED lights on the drone will keep flashing, from this point your Forward/Backward will be the Drone's Forward/Backward regardless of which direction the Drone's nose points. Long press it again to exit Headless Mode.



HEADLESS RETURN FEACTURE

This feature is not GPS Return-T-Home feature. It is Headless return feature. In headless mode, press the Headless return button “

CAMERA

1. Press the Camera/Video “

1. Ensure operation according to above steps.

2. When taking pictures, the time interval shall not be less than 2 seconds .

SOFTWARE DOWNLOAD AND INSTALLATION



QR code of “RC-PRO PRO16” APP for Apple IOS system (Please scan this QR code to install this software).



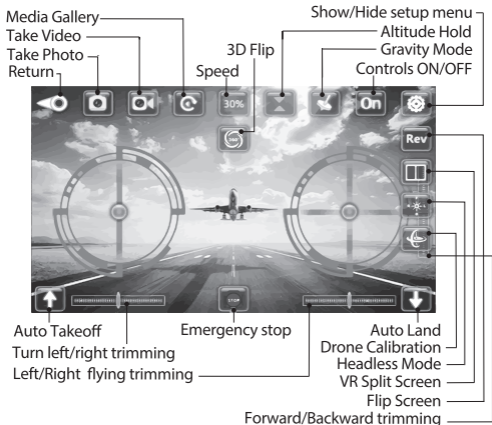
QR code of “RC-PRO PRO16” APP for Android system (Please scan this QR code to install this software).

Turn the Drone’s power ON and on your smart phone search for a Wifi network which starts with “RC-PRO PRO16.....” . Connect to the drone by tapping on this network.

Now start “RC-PRO PRO16” APP and enter the control interface.



APP INTRODUCTION



TROUBLESHOOTING

Problem	Reason	Approach
The drone is instable while flying	1. The drone is not trimmed	1. Perform trimming close to the ground (Page 8)
	2. The drone is not calibrated	2. Perform gyroscope calibration (Page 7)
	3. The drone's blades are damaged	3. Replace the blades according to (Page 6)
	4. Wind is too strong	4. Do not fly in windy conditions
Remote control status light does not light	1. Controller is turned off	1. Turn switch to ON position
	2. Battery is incorrectly inserted	2. Check that batteries are inserted correctly
	3. Battery has no charge	3. Replace the batteries with new ones
Can not Control	1. The remote control is not turned on	1. Press the power switch
	2. The drone battery is not connected	2. Check battery connection of the drone
	3. The remote control frequency has not paired with the drone	3. Turn the remote control off and on again to reset the connection
	4. Wind is too strong	4. Do not fly in windy conditions
The drone will not ascend	1. Rotor speed is too slow	1. Push up on the left lever
	2. Drone battery is too low	2. Charge the drone battery
	3. The blades are not positioned properly	3. Refer to the page 4 for proper blades positioning
The drone crashed instead of land	Improper use of the emergency shutdown feature.	Make sure you use the auto landing button for easy landing

PARTS LIST



Upper Cover



Base



Blade A/B



Blade protector



LED cover



Blade gear



Motor A/B



Receiver board



Landing gear



Lipo battery



USB charging cable



Transmitter



Phone holder



Camera



We believe that you should make the most out of your drone. If you are ever in need of advice, service or parts please visit our website for a list of our retailers and service centers.

WWW.RCPRO.CA