

evolved_4k

USER MANUAL



25 MIN
Flight Time

1000 M
Flight Range

SONY
8MP 4K CMOS Sensor

ELECTRONIC
IMAGE
STABILISATION

BRUSHLESS
MOTORS

AUTO
GIMBAL

ZERO-X | PRO



ZERO-X IS A PROUD DRONE SAFETY ADVOCATE



Test your knowledge at knowyourdrone.gov.au

Be aware of local legislations and read the instructions carefully before using your drone. Keep yourself and others safe when flying your Zero-X drone. Always fly your drone within visual line-of-sight and only fly one drone at a time. Do not allow your view of the drone to be impaired eg: in rain, wind, snow, fog or low light. When flying your drone, please keep in mind the safety and privacy of others.

Do not get your drone wet, dusty or sandy. Do not touch your drone while it is powered on and when the rotor blades are turning.

For replacement parts batteries, blades, and accessories please visit your nearest Zero-X retailer or visit www.zero-x.com.au | www.zero-x.co.nz

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1.0 WELCOME

Thank You for a purchasing a Zero-X Pro Evolved 4K Drone. The Zero-X Pro range has been specifically designed to provide the intermediate to advanced user with a great flight experience. Please take the time to read the following safety warnings and operating instructions carefully.

1.1 BEFORE YOU GET UP IN THE AIR

Before you familiarise yourself with the Zero-X Pro Evolved 4K Drone, we ask that you read **"BATTERY SAFETY" ON PAGE 7** before you start charging your drone's battery.

WARNING:

PLEASE DO NOT MOVE THE CAMERA MANUALLY AS IT CAN DAMAGE THE GIMBAL AND CAMERA.

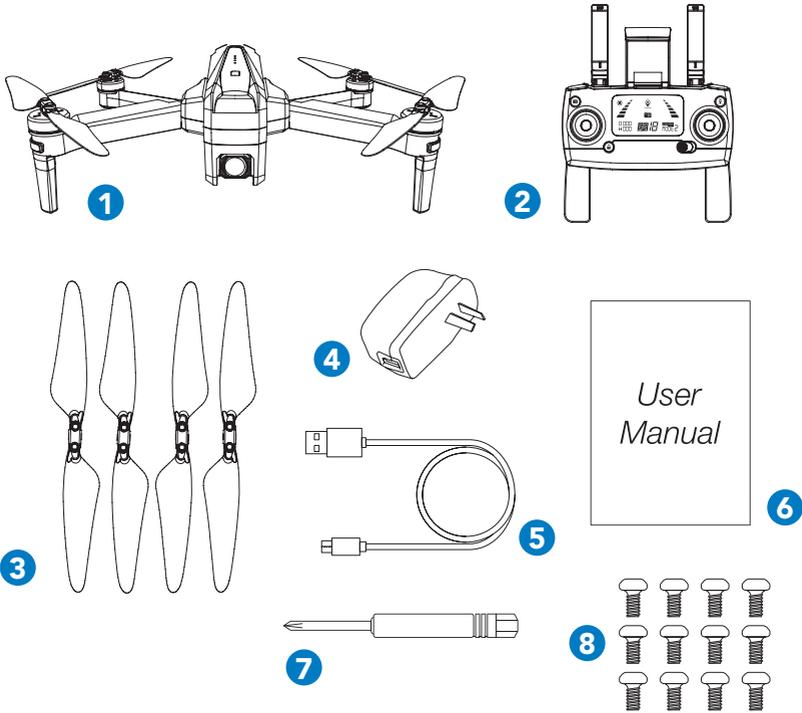
1.2 GENERAL SAFETY

Please familiarise yourself with your local legislation regarding drone usage before you begin using your Zero-X Pro Evolved 4K Drone. Included in the package contents of your Zero-X Pro Evolved 4K Drone are the Australian CASA guidelines, please read them carefully and understand this information as operating a drone outside of these guidelines may result in legal issues. Zero-X takes no responsibility for operation of this product outside of what is legally permissible in your area.

- Do not fly your Evolved 4K Drone any closer than 30 metres from people, animals or buildings. Check to make sure you are no closer than 5.5 kilometres from any airfields or airports. For more information on CASA's Australian legislation visit: <http://www.casa.gov.au/>
- You must not fly your drone higher than 120 metres (400 ft) above the ground.
- You must only fly during the day and keep your drone within visual line-of sight
- For information outside Australia please visit the website of your local aviation authority.
- Do not attempt to modify the Evolved 4K Drone or any of its components in any way, doing so will void your warranty and may affect the operation of the drone.
- Do not use the Evolved 4K Drone in any conditions that could affect, damage or impair your view including wet, dusty or sandy conditions. These elements will damage the components of your Evolved 4K Drone.
- Please do not attempt to touch the Evolved 4K Drone when the Remote Control is powered on, or if the rotor blades are turning.
- When flying your Evolved 4K Drone, please keep in mind the privacy of others.

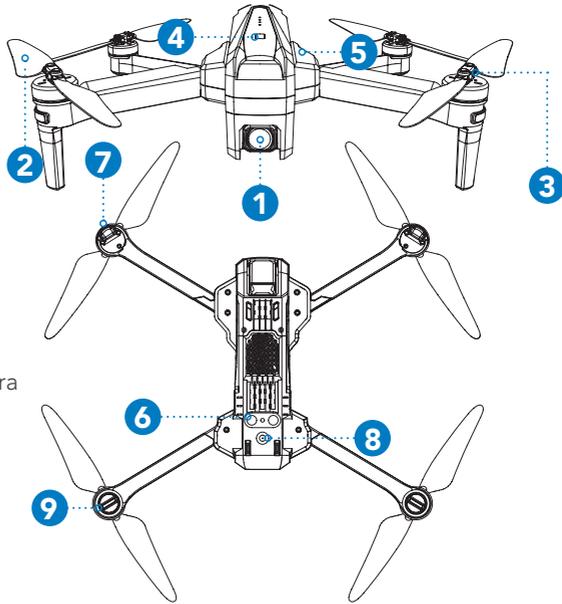
2.0 PRODUCT CONTENTS

1. Evolved 4K Drone
2. Remote Control
3. Rotor Blades x 4
4. USB AC Wall Charger
5. USB Charging Cable
6. User Manual
7. Small Screw Driver
8. Screws



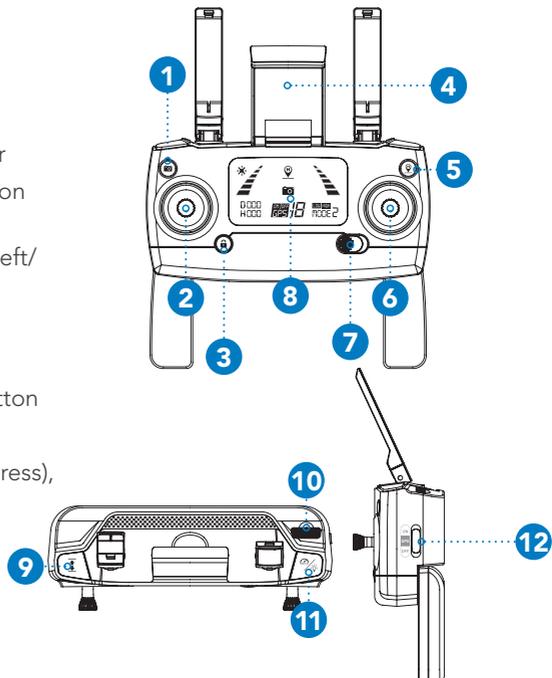
2.1 PRODUCT OVERVIEW

1. Camera
2. Rotor blades
3. Motor
4. Power Button
5. Battery Release Buttons
6. Bottom Lights
7. Front Lights
8. Optical Flow Camera
9. Rear Light



2.2 CONTROLLER OVERVIEW

1. Photo/Video
2. Left Thumb Stick (Yaw left/Right)
3. Lock/Unlock Button
4. Mobile Phone Holder
5. Return to Home Button
6. Right Thumb Stick (Forward/Backward, left/Right)
7. Power On/Off
8. LCD Screen
9. Take Off/Landing Button
10. Camera Up/Down
11. Light Switch (Quick Press), High/Low Speed (Long Press)
12. GPS Switch



IMPORTANT INFORMATION - PLEASE READ BEFORE USE

3.0 BATTERY SAFETY

When handled incorrectly, Lithium polymer batteries can be dangerous and can potentially harm and do damage to persons or property. Zero-X does not accept any liability for damage to persons or property if the battery is not correctly charged, stored or protected.

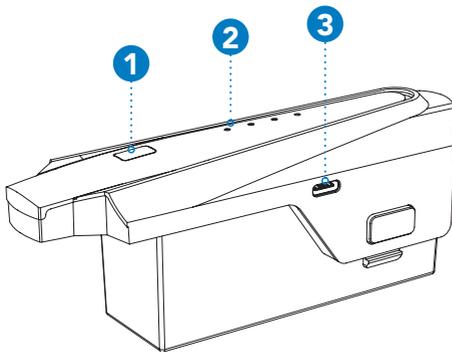
- Always unwind all cables before charging.
- Do not over charge the battery. Once the charging process is completed, remove the battery from the charger as soon as possible.
- Only use the included or replacement Zero-X Pro Evolved 4K chargers and batteries.
- You must charge the Lithium polymer battery in a safe area away from flammable materials.
- The battery is only to be charged under adult supervision, do not leave charging batteries unattended. You should always remain in constant observation to monitor the charging process and react immediately to any potential problems that may occur.
- Do not charge the battery in temperatures hotter than 40°C or colder than 0°C.
- Do not cover the batteries when charging. Do not leave batteries in direct sunlight.
- After each flight & or crash, please check battery for any damage or swelling.
- If the battery is damaged, leaking, making noise, punctured or malformed in any way DO NOT attempt to use it. Please dispose of the battery immediately and safely in the correct manner.
- Do not bend, puncture, crush or scratch the drone's battery. Do not store batteries in your pockets, on your person or in extreme temperatures.
- After flying/discharging the battery you must allow it to cool to ambient/room temperature before recharging.
- If at any time during the charge or discharge process the battery begins to balloon or swell, discontinue charging or discharging immediately. Quickly and safely disconnect the battery, then place it in a safe, open area away from flammable materials to observe it for at least 15 minutes. Continuing to charge or discharge a battery that has begun to balloon or swell can result in a fire. A battery that has ballooned or swollen even a small amount must be removed from service completely.
- Never plug in a battery and leave it to charge unattended overnight.
- Non-compliance with the above warnings may result in the failure of the battery.

PLEASE NOTE: YOUR ZERO-X DRONE COMES WITH A CERTIFIED ZERO-X USB AC CHARGING ADAPTER AND CABLE FOR 240V CHARGING OF YOUR DRONE BATTERY. USE OF A NON ZERO-X CERTIFIED USB AC CHARGING ADAPTER AND CABLE WILL VOID YOUR WARRANTY AND MAY DAMAGE BOTH YOUR BATTERY AND DRONE.

Press the buckle and pull out the battery from the your Evolved 4K drone. Connect the drone battery to the charging cable. The light on the battery will blink blue during charging. The light on the battery will turn solid blue once charging is complete. Once the battery is in a low power state, the blue power indicator will start flashing. At this time, please fly the drone back immediately and charge the battery to avoid unnecessarily losing your drone.

To keep the battery life as long as possible avoid removing the battery from the charging cable before charging is complete. If you have just finished flying your Evolved 4K drone, please allow the battery to cool down for at least 30 minutes before recharging.

1. The Evolved 4K battery may take up to 5 hours to charge. If the battery has been on charge for any longer than 6 hours and the indicator on the charging cable is not showing that the battery is charged, please remove the battery from the charger.
2. When the Evolved 4K battery has finished charging it is advised that the battery is removed from the charger as soon as possible. Overcharging will damage the battery and affect the flight time.



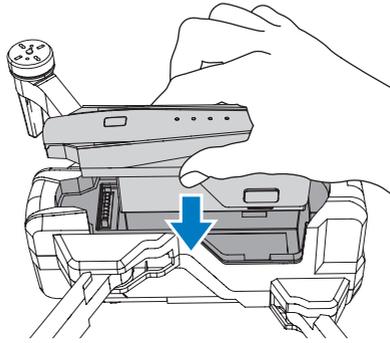
1. Battery on/off button
2. Battery power indicator
3. USB charging port

Low → High



4.0 INSTALLING THE BATTERY

1. Ensure that the battery is fully charged.
2. Insert the battery into the middle of drone in the correct orientation.
3. Slide the battery all the way down until it securely slots into place.

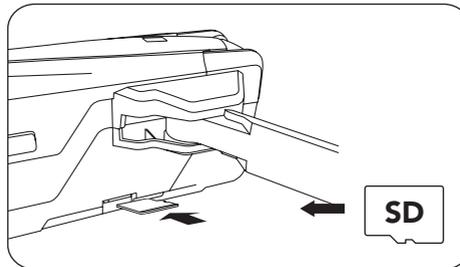


NOTE

- Do not force the battery, if the battery is not fitting into position, please check that you have the battery in the correct orientation.

5.0 INSTALLING A MICRO SD CARD*

The Micro SD Card slot is on the left bottom side of the drone. Slot the Micro SD Card into the slot on the left side of the Evolved 4K drone with the Micro SD Card copper contacts facing toward the drone. Gently press the card in until you hear the lock click into place.



REMOVING A MICRO SD CARD

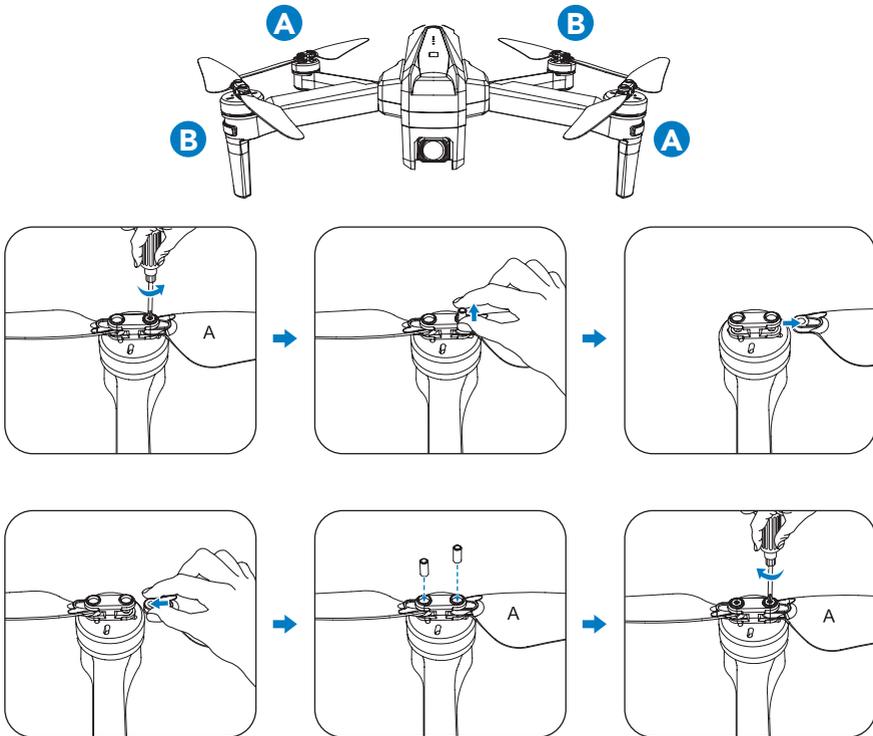
To remove your Micro SD Card, follow the instructions below.

1. Press the Micro SD Card in until a click is heard and the card releases.
2. The card will now release and the Micro SD Card will now be removable. (Micro SD Card not included)*.
3. The recommended memory card is Class 10 with a minimum 64GB & maximum 128GB capacity.

5.1 REPLACING ROTOR BLADES

To remove and replace the rotor blades, please follow the instructions below.

1. Unscrew the two screws on the top of the rotor blades using the supplied screwdriver. It is advised that you replace the blades one at a time to avoid losing screws or installing blades incorrectly.
2. Remove the copper plate cover from the blade clamp.
3. Replace the rotor blade with a replacement blade marking sure to match with motors.
4. Firmly press the blade into position making sure that you have aligned the motor stem with the hole in the rotor blade.
5. Lock the blade into position by putting the copper plate cover back over the screws that were removed in step 1 making sure not to over tighten.



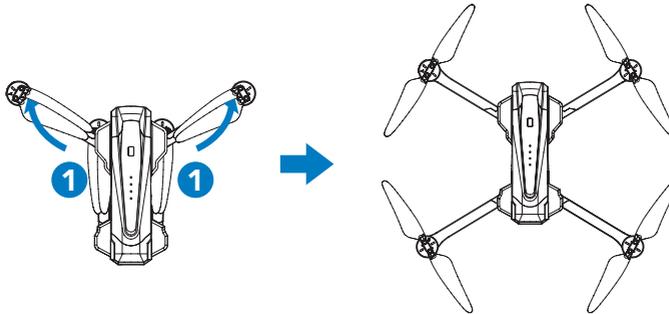
NOTE

- It is important that the correct rotor blades are installed on the correct motors as if they are installed incorrectly the drone will not fly and you could potentially burn out the drone's motors.

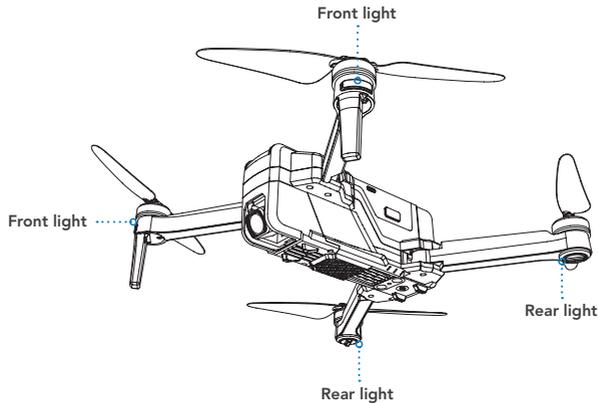
- Be aware of the sharp edges on the blades. Please handle them with care.
- Only use the Zero-X Pro Evolved 4K Blades.
Do not mix with other blades.
- To avoid injury do not touch the blades when they are spinning.
- Only use blades that are in good condition. If they are chipped or broken replace them as this may compromise the flight.

5.2 FOLDING/UNFOLDING THE EVOLVED 4K DRONE

The Evolved 4K can be folded for easy storage and transport. The Evolved 4K's arms are designed to fold out in a specific order with the front arms folding outward first and the back arms folding outward second. To fold down, fold in back arms first and then front arms second.



6.0 STATUS INDICATOR LIGHTS

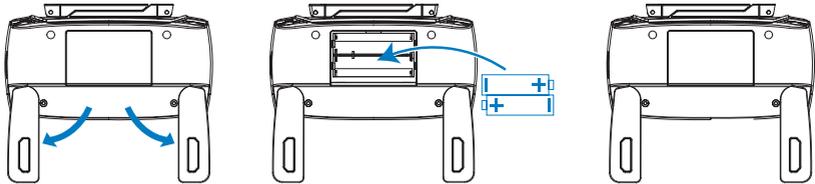


Please see the table below for reference when your drone status indicator lights are activated and what they mean.

LED Status	Indicates
Front & rear lights flash yellow rapidly	Drone is disconnected from the controller.
Front & rear lights flash red, green and yellow alternatively.	Drone is in initialisation detection mode.
Front lights glow solid red, rear lights glow solid yellow.	No GPS signal, drone is in non-GPS mode.
Front lights glow solid red, rear lights glow solid green.	Good GPS signal, drone is preparing for GPS mode.
Front & rear lights flash green rapidly	Drone is in gyroscope calibration mode.
Front & rear lights flash yellow alternatively	Drone is in compass horizontal calibration mode.
Front & rear lights flash green alternatively.	Drone is in compass vertical calibration mode.
Front light glows red, rear light flashes red slowly.	Drone battery is getting low, only 1/6 of charge left.
Front light glows red, rear light flashes red rapidly.	Drone battery is very low, only 1/8 of charge left.
Front & rear lights flash red once, stop for 1.5secs and reflash	Error with the gyroscope.
Front & rear lights flash red twice, stop for 1.5secs and reflash	Error with the barometer.
Front & rear lights flash red three times, stop for 1.5secs and reflash	Error with the compass.
Front & rear lights flash red four times, stop for 1.5secs and reflash	Error with the GPS module.

6.1 REMOTE CONTROL

The remote control is battery operated and will require two AA batteries to use. To access and open the battery door you will need to unfold the hand sticks. Place the two batteries in the correct positions and close the battery door. To Power On the remote control slide the Power On button to the right. To Power Off, slide the button to the left.



* AA Batteries are not included

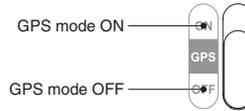
NOTE:

- Insert the batteries in the correct orientation.
- Do not charge non-rechargeable batteries. The transmitter needs two charged and working AA batteries to operate.
- Do not mix old and new batteries. This may compromise the power of the remote control.
- Do not use a combination of batteries. Only use one type being either 2 x Standard (Carbon zinc batteries), 2 x alkaline batteries or 2 x rechargeable (Nickel-cadmium batteries).
- Always fully charge rechargeable batteries before using them. The remote control does not charge them during use.
- Children should handle rechargeable batteries with adult supervision.
- Always remove empty batteries from the remote control to avoid confusion for use on the next flight.
- Do not short circuit the supply terminals.

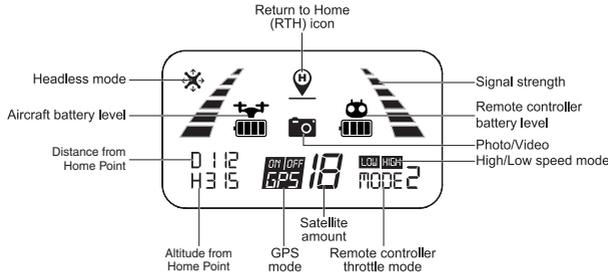
7.0 REMOTE CONTROL FUNCTIONS

7.1 SWITCHING BETWEEN FLIGHT MODES

To choose which mode to fly your drone in, switch the GPS button to either the ON or OFF positions. The ON flight mode  is shown on the LCD display.

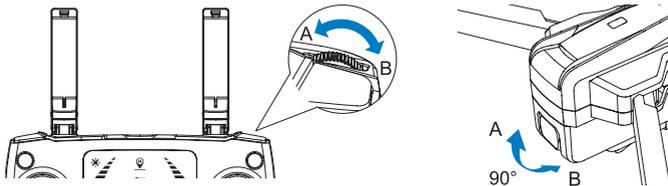


7.2 LCD SCREEN DISPLAY



7.3 CAMERA ANGLE ADJUSTMENT

You can adjust the angle of your camera within a 90° range by using the gimbal trimmer. Adjusting the camera angle can help in obtaining a better aerial experience. To tilt the camera upwards, scroll the gimbal trimmer to the left (in the direction of 'A' in the diagram). To tilt the camera downwards, scroll the gimbal trimmer to the right (in the direction of 'B' in the diagram).



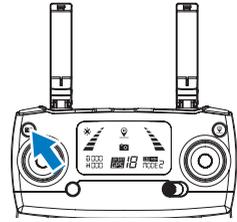
WARNING:

PLEASE DO NOT MOVE THE CAMERA MANUALLY AS IT CAN DAMAGE THE GIMBAL AND CAMERA.

7.4 PHOTO/VIDEO CONTROLS

To take a photo with your drone, short press the  button on the remote control. The same icon on the LCD screen will flash once, indicating that one photo has been taken.

To record a video with your drone, long press the  button on the remote control. The same icon on the LCD screen will slowly flash continuously, indicating that the drone is recording. To stop recording long press the  button again.



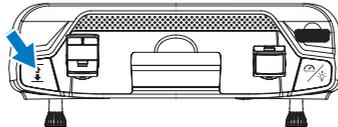
NOTE

- To take 4K UHD photos and videos you must have the micro SD card inserted into the drone's camera. If the micro SD card is not formatted correctly the drone will not be able to capture any images or footage.
- The quality of photos and videos recorded on your smart phone will be de-scaled to save space.

7.5 ONE-KEY TAKE OFF & LANDING

When you have unlocked your Evolved 4K drone, short press the  button on the remote control (as shown in the picture below). The drone will automatically take off and hover 1.5m off the ground.

To automatically land your drone during a flight, short press the  button on the remote control (as shown in the picture below). The drone will automatically land on the ground safely. During the descent in the one key landing mode if you toggle any of the joysticks it will cause the drone to exit this mode.



7.6 ONE-KEY RETURN TO HOME BUTTON

To activate the return to home mode press the  button on the top right side of the remote control (as shown in the picture on the right). The buzzer will beep to indicate that auto return home has been activated.

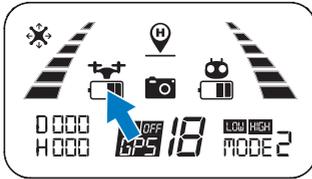
The drone will return to the last home point. Press the button shortly again, the drone will exit return home mode.



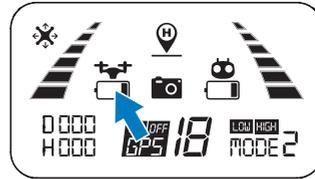
7.7 DRONE LOW BATTERY WARNING

If the rear indicator lights on the drone are flashing red slowly, this indicates your battery level is starting to get low. The battery icon on the remote control LCD screen will be  (See Pic 1 below for reference). If your drone is more than 100 metres away or more than 30 metres in altitude from the take off location (home point), it will return home automatically. If your drone is flying within a 100 metre range, you can cancel the automatic return home by pressing the "📍" button on your remote control.

If the front light glows a solid red and the rear lights are flashing red rapidly, this indicates your battery levels are very low, you should finish your flight. The battery icon on the remote LCD screen will be  accompanied by a steady 'beep beep' sound (See Pic 2 below for reference). If your drone is more than 15 meters away or more than 15 meters in altitude compared to its take off location, it will automatically land on the ground.



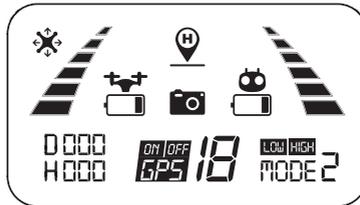
Pic. 1



Pic. 2

7.8 REMOTE CONTROL LOW BATTERY WARNING

When the batteries in your remote control are running very low, a  icon will appear on the remote LCD screen accompanied with a 'beep beep' sound. Change batteries to new AA or fully charged (rechargeable) batteries.



NOTE

These batteries must be the same type. Please do not mix battery types.

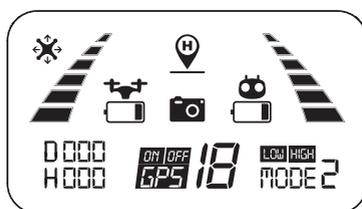
7.9 SIGNAL STRENGTH INDICATOR

On the remote LCD screen you will see identical bars on the left and right, these indicate the strength of the connection between your remote control and the drone. The stronger the signal is, the more bars will show.

- If the signal is strong the bars will appear .
- If the signal is connecting, the bars will appear  leveling up in a constant rotation pattern.
- If the signal is weak, 2 or less bars will appear .

There are two reasons as to why the connection is weak and will show 2 bars or less:

1. There is too much distance between the drone and the remote control, causing the signal to weaken.
2. The battery in the drone is removed after connecting to the remote control - terminating the connection.



7.10 LOCK / UNLOCK THE DRONE

In case of an emergency or after your Evolved 4K drone has landed you are able to lock the motor.

There are two ways to lock the motors:

1. After you have successfully landed the drone, pull the throttle down (refer to section 8.1 Throttle Control) to the bottom and hold for 3 seconds. This will stop the motors and lock the drone.
2. If there is no activity for longer than 15 seconds the drone will automatically lock.

To unlock the drone, short press the  button, this will activate the motors.



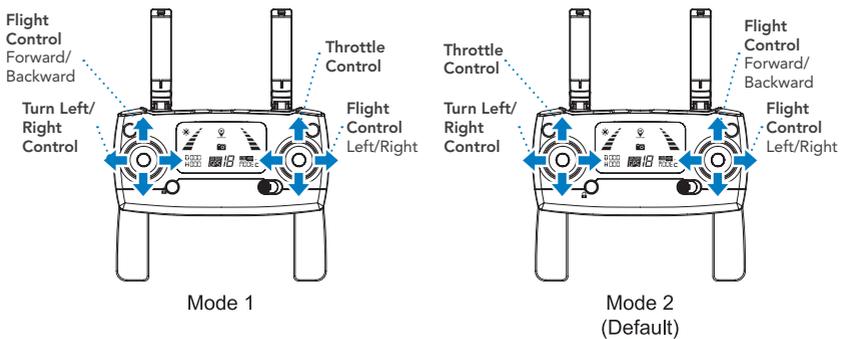
NOTE

- You can use the  button in case of an emergency to lock the drone's motors. Hold the  button for 3 seconds to activate the lock. Please do not use this in normal flight, only in emergency situations.
- Please ensure there is a safe distance between you and the drone before locking the motors.
- The emergency stop operation will only activate when the drone is within 15 metres (distance and altitude) from the take off location (home point), and only when the GPS function is active with strong drone signal strength (more than 7 satellites).

CAUTION: Locking the drone motors during flight will cause the drone to drop immediately which may result in injury and damage to your drone.

8.0 THROTTLE CONTROL STICK MODE

8.1 THROTTLE MODE SWITCH

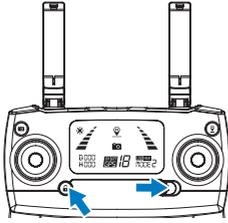


In Mode 1 the right control stick controls the throttle. In Mode 2 the left control stick controls the throttle. The factory settings in the remote control are set to Mode 2 (Default).

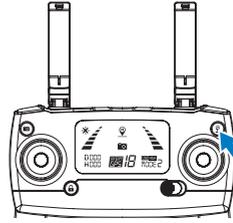
8.2 HOW TO CHANGE THROTTLE MODE

1. Hold down the  button and swipe the Power ON button to the right to turn on the remote control. The signal bars will go into signal connection mode. (See Pic 1 below for reference).
2. Now hold down the Return to Home button  for 3 seconds (See Pic 2 below for reference). The remote control will beep when the throttle mode changes. To revert to original throttle mode hold down the  button again for 3 seconds, the remote control will beep again to confirm the change.

The mode number you are currently on will be displayed on the remote LCD screen at the bottom right.



Pic 1



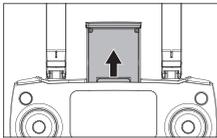
Pic 2

NOTE

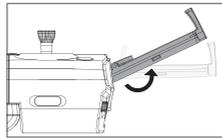
In order to change the throttle mode the signal must be in signal connection mode. If it is not in this mode it will not allow you to change the throttle mode.

9.0 SETTING UP THE MOBILE PHONE HOLDER

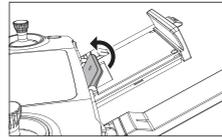
1. Pull out the mobile phone holder, it will click in place when it has been completely pulled out. This can be found on the top of the remote control between the two antennas.
2. Tilt the phone holder towards you about 30° to click in place. Note the holder will only tilt towards you if it has been fully extended.
3. Tilt the support board towards you. This will sit against the body of the remote control.(See Pic 3 below for reference).
4. Pull up the top of the phone holder to adjust in accordance to the size of your phone. You can now place your phone into the holder and it will securely clamp and hold your phone in place.



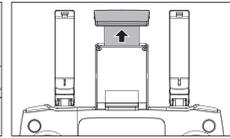
Pic. 1



Pic. 2



Pic. 3



Pic. 4

10.0 DOWNLOADING THE EVOLVED 4K APP TO YOUR MOBILE PHONE

10.1 WHERE TO DOWNLOAD

For iPhones - go to the Apple App Store and search for the Zero X Evolved 4K App.

For Android phones - go to the Google Play Store and search for the Zero X Evolved 4K app.

10.2 ZERO-X EVOLVED 4K APP



The Evolved 4K drone has built in WIFI connection which us used to wirelessly connect your Smartphone to your Evolved 4K drone allowing you to view the drone camera live view, trigger recording, control and fly your Evolved 4K drone.

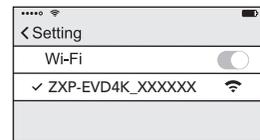
To connect your Smartphone to the Evolved 4K drone please follow the instructions below.

Go to Google Play store if you are using an Android Smartphone, or the Apple Store if you are using an iPhone and search for the App named "ZXP-EVD4K or Zero-X Evolved 4K", once located please download and install the App.

Connect the App, then go into the WIFI settings on your smartphone and select the connection named ZXP-EVD4K_XXXX (XXXX will be your unique drone number). Once connected, open the ZXP-EVD4K App on your smartphone

10.3 CONNECTING TO THE EVOLVED 4K WIFI

1. Go to your mobile phones settings menu and enter the WiFi settings.
2. Turn on your Evolved 4K drone.
3. If your WiFi is turned off, turn it on and search for ZXP-EVD4K_XXXXXXXX in the available networks. Select ZXP-EVD4K_XXXXXXXX, once the connection is successful a  icon will appear next to it.



10.4 SAVING PHOTOS AND VIDEOS

- If your drone does not have a micro SD card inserted, all photos and videos will be saved with the App onto your smartphone. However, the image quality will not be as sharp on your connected mobile device compared to images and videos that are saved onto the micro SD card.
- If you have the micro SD card inserted, all photos and videos will be saved to it.
- You can also download all the images that have been saved onto the micro SD card onto your Zero X Evolved 4K app.

NOTE

Only mobile phones that support the 5G WiFi (802.11.ac) can make FPV connections.

11.0 PRE-FLIGHT CHECKLIST

- Drone, controller and your device are all fully charged.
- All blades are installed correctly.
- All arms are fully unfolded.
- Camera lens is clean, free of dirt and dust.
- All parts used are genuine Zero-X Pro Evolved 4K products. Using other parts that are not made specifically for the Evolved 4K drone may cause safety issues or cause the drone to malfunction.
- The Zero-X Pro Evolved 4K App is downloaded and installed on your device.

12.0 FLIGHT SAFETY

Before flying your drone make sure that you are in a safe surrounding. CASA restrictions regarding flying drones require the drone to be no closer than 5.5 kms from any airport or airfield while flying. Drones should also not be flown higher than 120 metres above the ground, over populated areas or any closer than 30 metres from vehicles, people or animals.

It is also required that you check your surroundings before taking off, making sure there are no obstacles or dangers in the area including overhead power lines and bodies of water. If there are hazards present in your intended area of flight, please consider an alternative location. Tall structures and large metal structures may affect the accuracy of the inbuilt GPS and compass.

Be sure to fly your drone in appropriate weather conditions, it is advised to refrain from flying during very high temperatures, snow, extremely strong winds, rain or fog. Please also note this drone's GPS system is unable to be used in polar regions.

For safety, Default control of the drone is set to Beginner where the flight parameters are fixed. To change the parameters, Please deselect the Beginner mode in the App's Flight Settings. To download the App please refer to **page 20**

13.0 FLYING YOUR EVOLVED 4K DRONE

Please read through all of the instructions below before attempting to start the launch the Evolved 4K drone.

13.1 PAIRING YOUR DRONE AND REMOTE CONTROL

1. Hold down the  button and swipe the Power ON button to the right to turn on the remote control.
2. Ensure that the battery is connected correctly to the drone. Power ON your drone by pressing down the button on the top of the battery for 3 seconds. The drone will make a sound and the 4 lights will come on in a sequence. The front lights will flash red and the rear lights flash green. The drone will then beep two times and the lights will switch to flashing alternatively yellow, green and red front and rear.

- The remote control will begin to pair with the drone automatically. Once a successful connection has been made the remote control will beep two times. The drone's indicator lights will change to alternatively flashing yellow for front and rear. The signal connection bars on the remote LCD screen will now show . The remote control will show both the battery level of the drone and the remote control on the LCD screen. Please charge your drone if the battery level is running low.

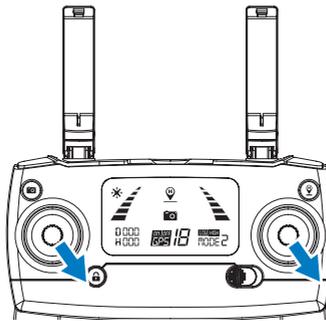
NOTE

- To avoid any signal errors when connecting the drone to the controller, ensure you turn on the remote control first and then the drone.

13.2 CALIBRATING YOUR DRONE

To enter into calibration mode, you must unlock the drone first. To do this pull both thumb sticks to the bottom right corner together at the same time. (See picture on the right for your reference).

There are two steps to calibrate your drone successfully: Horizontal calibration & Vertical calibration.

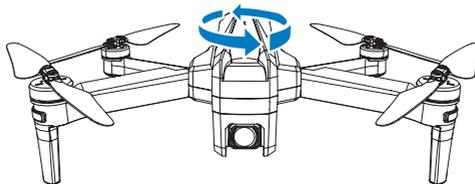


NOTE

- It is recommended to calibrate your drone before each flight.

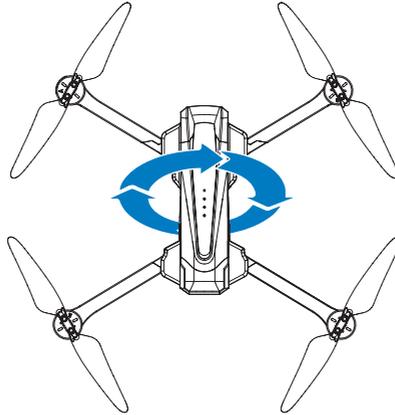
STEP 1: HORIZONTAL CALIBRATION

Now that the drone is paired with the remote control the front and rear lights will be alternating flashing yellow. Hold the drone horizontally and rotate it 360° degrees by the centre at least 3 times. When the horizontal calibration has completed the lights will change to flashing green.



STEP 2: VERTICAL CALIBRATION

Hold the drone vertically with the camera facing up and rotate it 360° by the centre at least 3 times. Be sure to keep the camera always facing up, otherwise calibration will not work. When the vertical calibration is completed and successful the lights will change to solid red on the front lights and yellow on the rear lights.

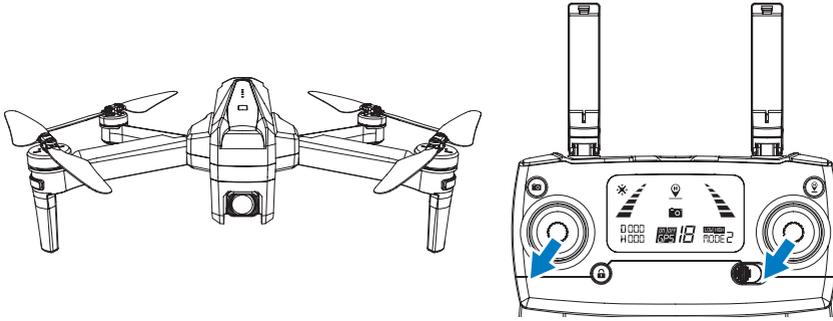


NOTE

- Do not calibrate the drone in an area with strong magnetic fields, parking lots or construction sites with underground reinforcement.
- Do not carry any magnetic objects or materials (such as keys or mobile phones) on you when you are calibrating your drone.
- Keep away from large metal objects during the calibration process.
- It is recommended not to wear smart watches while flying your drone as it may interfere with the GPS signal.

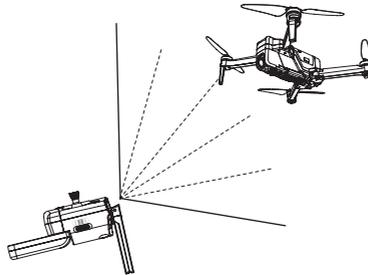
13.3 GYROSCOPE CALIBRATION

After the drone has finished calibrating, put the drone on flat ground and pull both thumb sticks to the bottom left corner together at the same time. (See picture below for reference). Once the calibration is complete the front and rear lights turn from flashing green to solid red at the front and yellow at the rear.



13.4 OPTIMAL TRANSMISSION ZONE

To ensure that your flight experience is as best as possible, make sure that your drone is flying in front of your remote control with no obstacles in between the drone and remote control.



NOTE FOR INDOOR FLYING:

- When flying indoors, please turn off the "GPS switch" of the remote control to avoid the drone getting out of control due to the weak GPS signal indoors.
- Optical Flow positioning system is typically activated and useful for indoor environments when GPS signal is weak or not available. Optical Flow positioning system works best when the drone is less than 3 meters from the ground level, as the drone has to continuously scan the ground. Please refer to the "**OPTICAL FLOW**" part of the manual on **page 32**.

NOTE:

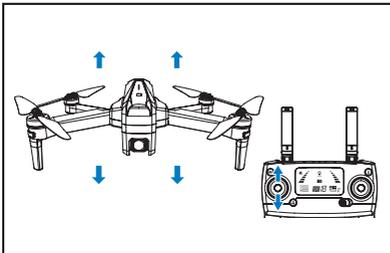
- You can connect to the WIFI at this time to view the real time video. Please refer to "**CONNECTING TO THE EVOLVED 4K WIFI**" on page 20 on how to connect to WIFI.

13.5 SETTING A HOME POINT

If the GPS signal is strong (Satellite level over 7) before take off, the take off location will automatically be saved as the drone's Home Location. The strength of the GPS signal is shown on the remote LCD screen at the bottom middle. You will see the strength indicated as  7 on the remote control. The drone's front indicator lights will turn solid red and rear indicator lights will turn solid green when the home point is successfully recorded.

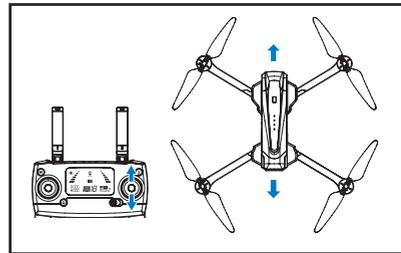
13.6 BASIC FLIGHT CONTROLS

UP AND DOWN



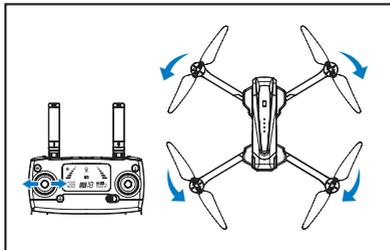
Push the left control stick up to gain altitude and down to descend.

FORWARD AND BACKWARDS



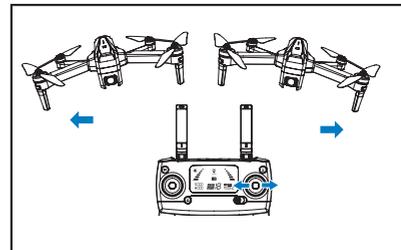
Push the right control stick up to go forward and down to go backwards.

ROTATION



Push the left control stick left to turn left and right to turn right.

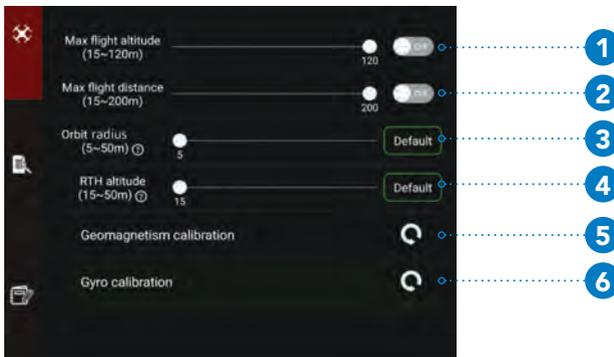
LEFT/RIGHT FLIGHT



Push the right control stick left to fly left and right to fly right.

To get smooth and stable movement in video, push the control sticks gently.

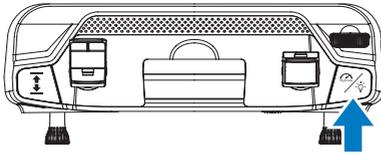
14.0 BEGINNER MODE



1. **Max flight altitude** - The default factory setting is OFF, therefore the drone can reach a maximum altitude of 120 metres. If you want to change the maximum altitude the drone can reach, switch the setting to ON and move the slider to set the desired altitude (between 15m-120m).
2. **Max flight distance** - The default factory setting is OFF, therefore the drone can reach a maximum flight distance of 1000 metres. If you want to change the maximum flight distance the drone can reach, switch the setting to ON and move the slider to set the desired distance (between 15m-200m).
3. **Orbit radius** - The default factory setting is 5 metres. If you want to change the orbit radius move the slider to set the desired radius (between 5m - 50m).
4. **Return to Home (RTH)** - The default factory setting is 15 metres. To change this, move the slider to set the new RTH altitude (between 15m - 50m).
5. **Geomagnetism calibration** - If you press this icon you can replace one of the compass calibration processes which involves using the remote control. Alternatively, if you would like to continue using the remote control method, push both control sticks to the bottom right corner (5pm direction), see the image to the right.
6. **Gyro calibration** - If you press this icon you can replace one of the gyro calibration processes which involves using the remote control. Alternatively, if you would like to continue using the remote control method, push both control sticks to the bottom left corner (7pm direction), see the image on the right.



15.0 SPEED MODE



The Evolved 4K Drone has 2 speed modes that control the acceleration and maneuverability of the drone.

To cycle through the Speed Modes, use the Speed Button on the top right of the controller.

16.0 HEADLESS MODE

1. Press the  icon on the left side of the App to launch options.
2. Press the headless mode button on the App (shown in the diagram below).



3. When headless mode is enabled, the drone will move in the direction of the remote control, regardless of its orientation. This makes it easy to bring the drone home when it is far away from you.

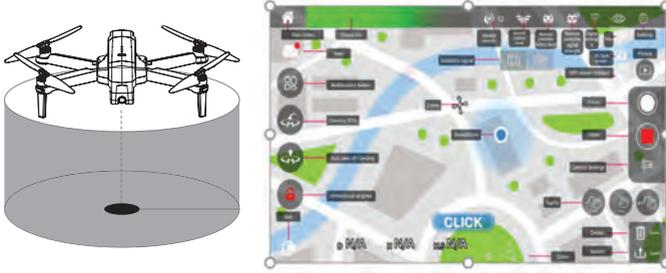
17.0 FLY AROUND-ME MODE

When activated, the Evolved 4K will undertake fixed point encircling around the desired point of interest.

1. Press the  icon on the left side of the App to launch options.
2. To activate Fly Around-Me Mode, while the drone is in air, aim the Evolved 4K at the desired point of interest. Press the orbit flight button on the App, it will set the drone fly surround radius range (within 5-50 metres).



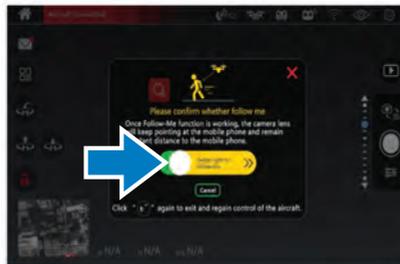
- Click the point of interest icon again to exit out of this mode and regain control of your drone.



18.0 FOLLOW ME MODE (GPS MODE ENABLED)

To activate the Follow-Me Function, the drone will follow your smartphone wherever you go. Please make sure the smartphone is connected with your Evolved 4K drone successfully and the Zero-X Evolved 4K App is installed and open.

- Press the  icon on the left side of the App to launch options.
- Fly the drone a minimum 5 metres and maximum 30 metres away from the drone pilot or person who is holding the smartphone that is connected to the drone via GPS.
- Click the follow me icon on your App.
- Swipe right to activate the follow me function, the drone will then start following the smartphone.
- Click the follow me icon again to exit out of this mode and regain control of your drone.



NOTE

- Follow Me mode depends on the GPS signal of the mobile device. The GPS signal can vary depending on the amount of buildings, trees, mobile towers or congestion from too many mobile phones in vicinity.
- Please fly the drone in open areas. The Evolved 4K drone is not equipped with obstacle avoidance.

19.0 WAY POINT FLIGHT (GPS MODE ENABLED)

To activate the way point flight, the drone will fly according to the path which you have set. Please make sure your smartphone is connected with your Evolved 4K drone successfully and the App is working. Also make sure that you have downloaded and saved the local map onto your smartphone.

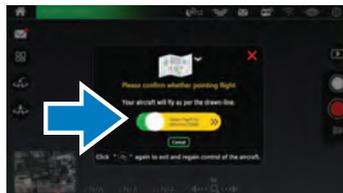
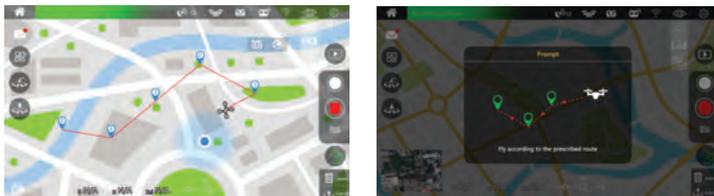
1. To enter into the way point flight mode, click the map on the bottom left corner of the App screen. After you have clicked the map, a blue circle will appear (your location) and the drone's current position on the map.



2. Please enlarge the map and then press the  button on the bottom right of the App screen to choose waypoint flight mode. You can now either draw a route by pressing the  button or mark route points by pressing the  button and tapping different points on the map.



3. Once you have either drawn or marked the way point points on your map (max 18 points), click submit and swipe right to confirm your waypoint route. The drone will now fly according to the saved path.



4. Press the  button again to exit the way point flight mode and regain flight control of the drone.
5. To reset the flight path, press the delete button on the bottom right corner of the App screen..



NOTE

Please note the Way Point Flight mode may not function correctly if there is WiFi interference.

19.1 RETURN HOME (GPS MODE ENABLED)

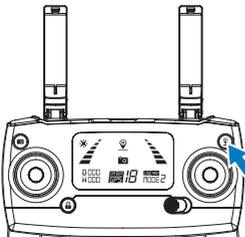


The Return Home Button will initiate the automatic landing sequence. Please make sure there are no obstructions, people or animals under the drone when this is selected.

If the drone's flying altitude is less than 15 meters from ground level and the Return Home button is pressed, the drone will gain altitude first and then return home. If the drone is not connected with the App, Please press the Return to home button on the controller for the drone to safely land at the starting point. There are 3 different types of Return to Home scenarios: Smart Return to Home, Low Battery Return to Home and Failsafe Return to Home.

SMART RETURN TO HOME

Press the return to home button on your remote control or click the return to home on your App and follow the instructions on screen, the remote control will start beeping. Your drone will return to the take off point if the return to home button is pressed on the remote control, this will cause the remote control to start beeping. To stop return to home function, please press the return to home button again.



Pic. 1



Pic. 2

LOW BATTERY RETURN TO HOME

When the drone senses the battery level is low, a failsafe is triggered. It is recommended to initiate the Return to Home function with your drone or land it immediately. There are two warnings for low battery levels:

1. When the rear indicator lights are flashing red slowly, you will notice the battery icon displayed as  on the remote LCD screen. This will cause the remote control to beep. If your drone is more than 100 metres away or more than 30 metres away in altitude from the take off location (home point), it will return home automatically. If it is within the 100 metre distance you can terminate the Return to Home by simply pressing the  button on your remote control.
2. When the rear indicator lights are flashing red slowly but the battery icon is displayed as  on the remote LCD screen, a steady beep sound will come from the remote control. If your drone is more than 15 metres it will Return to Home automatically. If it is within the 15 metre distance the drone will automatically land and lock the motors.

FAILSAFE - OUT OF CONNECTION RETURN TO HOME

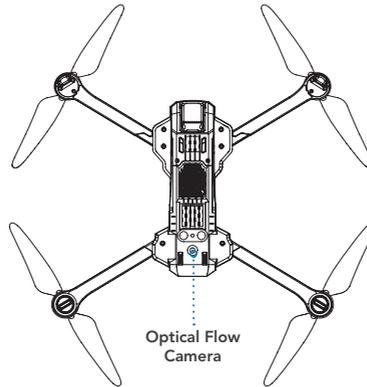
If the GPS control signal is continuously interrupted for longer than 6 seconds and the app controls are turned off, the drone's internal flight control system will take over control and return the drone to the home point. If the GPS signals are restored during the Return to Home, the drone will continue its return, to cancel this and regain control press the  button on your remote control.

NOTE:

- The drone is not equipped with obstacle avoidance.
- When the drone is in automatic Low Battery Return to Home mode you cannot cancel this unless stated above. To continue flying you will need to charge the battery or put in a spare charged battery. (Spare battery is not provided)

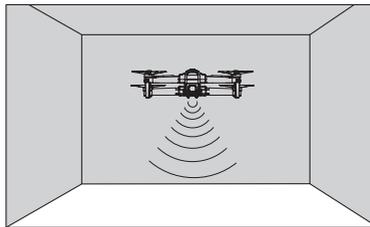
19.2 OPTICAL FLOW

The optical flow system consists of the optical flow lens modules. This system is an image positioning system, it will obtain the drone's position through the optical image which ensures safe flights and accurate positioning. See below for reference where the optical flow camera is located within your drone.



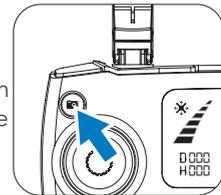
VISION POSITIONING SYSTEM

This system is typically activated and used in indoor environments when the GPS signal is weak or not available. The vision positioning system works best when the drone is less than 3 metres from the ground.



19.3 PHOTO MODE

Press the photo button  on the remote control or click the photo icon on the App. A picture will be shown on the App indicating a photo has been captured. If the drone is not connected with the App, please press the photo button  on the remote control.



19.4 VIDEO MODE

Long press the photo button  on the remote control. A video icon  on the remote control LCD screen will begin to flash slowly, indicating that a video is being recorded. To exit out of video mode, long press the photo button  again.

19.5 VIEWING PHOTOS AND VIDEOS

To view your recorded footage and videos you will need to connect the Micro SD card to your computer via either a USB Micro SD card reader or via a SD card converter if your computer has a SD card reader. (Not provided) or you can click the media gallery on your App to view the picture and video.

NOTE:

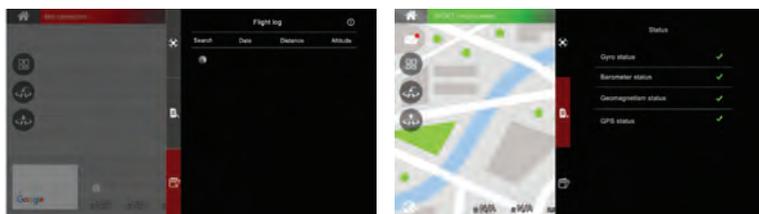
- The quality of videos or photos recorded on your smart phone will be de-scaled to save space. The recommended micro SD card is Class 10 with a minimum capacity of 32GB and maximum capacity of 128GB.

20.0 ACTIVATING SEARCH FUNCTION FOR A LOST EVOLVED 4K DRONE

1. Check that your mobile phone has disconnected from the drone's WiFi.
2. Click on the "Settings" button in the app.



3. Click on the "Flight Log" button within the settings menu, and then click the "Search" button to view the approximate flight position from when the WiFi connection got disconnected. You can also view the drone's position in "Flight Log" on the map via the longitude and latitude coordinates by swiping left on the screen.



20.1 DRONE MAINTENANCE

Avoid exposing your Evolved 4K and its accessories to dust, sand and moisture as these can damage the Evolved 4K. If the Evolved 4K is exposed to dust or sand, use a soft brush to remove any visible particles.

20.2 REPLACEMENT PARTS

We understand that it's not always easy learning how to fly a drone, and sometimes a close call can turn into a crash landing. To thank you for your support of Zero-X and your drone purchase, we would like to help you build your confidence in learning how to fly your drone. We would like to offer you 50% off your first two orders of any spare parts, by using the codes in the coupons below.

There you will be able to find and buy the spare parts listed below.

Visit www.zero-x.com.au | www.zero-x.co.nz to make your purchase.

- Battery
- Rotor Blades
- Front Arm & Motor Set A
- Front Arm & Motor Set B
- Rear Arm & Motor Set A
- Rear Arm & Motor Set B



21.0 WARRANTY TERMS & CONDITIONS

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

This warranty is provided in addition to your rights under the Australian Consumer Law. Directed Electronics Australia Pty Ltd (Directed Electronics) warrants that this product is free from defects in material and workmanship for a period of 12 months from the date of purchase or for the period stated on the packaging. This warranty is only valid where you have used the product in accordance with any recommendations or instructions provided by Directed Electronics.

This warranty excludes defects resulting from alterations of the product, accident, misuse, abuse or neglect. In order to claim the warranty, you must return the product to the retailer from which it was purchased or if that retailer is part of a National network, a store within that chain, along with satisfactory proof of purchase. The retailer will then return the goods to Directed Electronics.

Directed Electronics will repair, replace or refurbish the product at its discretion. The retailer will contact you when the product is ready for collection. All costs involved in claiming this warranty, including the cost of the retailer sending the product to Directed Electronics, will be borne by you.

Zero-X Address: 115-119 Link Road, Melbourne Airport, Victoria 3045 Australia

Ph: +61 03 8331 4800

Email: service@zero-x.com.au

INDEMNITY

You agree to defend, indemnify and hold harmless Zero-X and its subsidiaries and affiliates from and against any and all claims, proceedings, injuries, liabilities, losses, costs and expenses (including reasonable legal fees), including but not limited to, claims alleging negligence, invasion of privacy, copyright infringement and/or trademark infringement against Zero-X and its subsidiaries and affiliates or the Zero-X services, relating to or arising out of your breach of any provision of these terms, your misuse of the Zero-X or Zero-X services, or your unauthorized modification or alteration of products or software.

WARRANTY AND WARRANTY DISCLAIMER

Zero-X has a limited warranty on whereby Zero-X warrants to you and only to you that the Zero-X drones and accessories, computer software, or other hardware, computer software, or other hardware. And accessories will be free from defects in materials and workmanship for one (1) year from the date of your purchase of the on Zero-X drones and accessories, computer software, or other hardware (unless a longer warranty period is required by law). The specifics of this Zero-X limited warranty are at <https://www.zero-x.com.au/warranty>

To the extent possible under governing law, other than the above product warranty for the Zero-X drones and accessories, computer software, or other hardware you understand and agree that the Zero-X services are provided on an "as is" and "as available" basis. Zero-X makes no warranty that the Zero-X services will meet your requirements or that use of the Zero-X services will be uninterrupted, timely, secure or error-free nor does Zero-X make any warranty as to the accuracy or reliability of any information obtained through the Zero-X services (including third party content), that any defects in the Zero-X services will be corrected or that the Zero-X products or Zero-X services will be compatible with any other specific hardware or service. Further, Zero-X does not warrant that the Zero-X services or the Zero-X servers that provide you with data and content are free of viruses or other harmful components. Zero-X also assumes no responsibility for and shall not be liable for any damages caused by viruses that may infect your Zero-X drones and accessories, computer software, or other hardware.

You agree that Zero-X is not an insurer and that Zero-X is not providing me with insurance of any type. Any amounts that you pay Zero-X for the Zero-X service are not insurance premiums and are not related to the value of your vehicle or property, anyone else's property located in your vehicle or premises, or any risk of loss in your vehicle or at your premises. If you want insurance to protect against any risk of loss at your vehicle or premises, you will purchase it. In the event of any loss, damage or injury, you will not look to Zero-X to compensate you or anyone else. You release and waive for yourself and your insurer all subrogation and other rights to recover against Zero-X arising as a result of the payment of any claim for loss, damage or injury.

Zero-X's equipment and services do not cause and cannot eliminate occurrences of certain events, including, but not limited to, fires, floods, burglaries, robberies and medical problems. Zero-X makes no guarantee or warranty, including any implied warranty of merchantability or fitness for a particular purpose, that the Zero-X equipment and services provided will detect or avert such incidents or their consequences. Zero-X does not undertake any risk that you or your vehicle or property, or the person or property of others, may be subject to injury or loss if such an event occurs. The allocation of such risk remains with you, not Zero-X.

Other than the above product warranty for the Zero-X drones and accessories, computer software, or other hardware, Zero-X and its suppliers disclaim all warranties of any kind, whether express, implied, or statutory, regarding the Zero-X equipment and any associated app/service. Including any implied warranty of title, merchantability, fitness for a particular purpose, or non infringement of third party rights. Because some jurisdictions do not permit the exclusion of implied warranties, the last sentence of this section may not apply to you. Zero-X hereby further expressly disclaims all liability for any claims for service failures that are due to normal product wear, product misuse, abuse, product modification, improper product selection or your non-compliance with any and all applicable federal, state or local laws. This warranty and warranty disclaimer give you specific legal rights, and you may have other rights that vary by state, province, or country. Other than as permitted by law, Zero-X does not exclude, limit or suspend other rights you have, including those that may arise from the nonconformity of a sales contract. For a full understanding of your rights you should consult the laws of your state, province, or country. For our Australian Customers: please note that this warranty is in addition to any statutory rights in Australia in relation to your goods which, pursuant to the Australian consumer law, cannot be excluded.

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