

_edge

FULL HD Drone with Optical Flow & WIFI FPV

DRONE USER MANUAL



ZERO-X[®]

Capture the skies.™



CONTENTS

1.0 WELCOME.....	2
1.1 BEFORE YOU GET UP IN THE AIR.....	2
1.2 GENERAL SAFETY.....	2
2.0 PRODUCT CONTENTS	3
2.1 PRODUCT OVERVIEW.....	3
2.2 CONTROLLER OVERVIEW.....	4
3.0 BATTERY SAFETY	5
4.0 SETTING UP YOUR ZERO-X EDGE	7
4.1 INSTALLING THE BATTERY	7
4.2 REPLACING ROTOR BLADES.....	7
4.3 INSTALLING ROTOR guards.....	8
4.4 REMOTE CONTROL.....	9
4.5 FLIGHT SAFETY.....	9
4.6 SYNCING YOUR Edge DRONE.....	10
4.7 FACTORY RESET FUNCTION.....	10
5.0 FLYING YOUR EDGE	11
5.1 BASIC FLIGHT	11
5.2 TRIM FUNCTION	11
5.3 SPEED MODE.....	12
6.0 CAMERA / VIDEO FEATURES.....	13
6.1 CAMERA MODE	13
6.2 VIDEO MODE	13
7.0 FLIP FUNCTION.....	13
8.0 HEADLESS MODE	14
9.0 ONE KEY REVERSE	14
10.0 EMERGENCY / STOP.....	15
11.0 OPTICAL FLOW POSITION.....	15
12.0 SAVING VIDEOS & PHOTOS USING YOUR SMART-PHONE.....	15
13.0 APP	16
13.1 APP INSTRUCTION.....	17
14.0 DRONE MAINTENANCE	18
15.0 REPLACEMENT PARTS	18
16.0 WARRANTY TERMS & CONDITIONS.....	19
17.0 NOTES.....	20

1.0 WELCOME

Thank You for purchasing a Zero-X Edge Drone, get ready to have the time of your life! We're sure your Zero-X Edge Drone will bring you a world of great experience in the air. 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 Edge Drone, we ask that you read page 5-6 before you start charging your drone's battery.

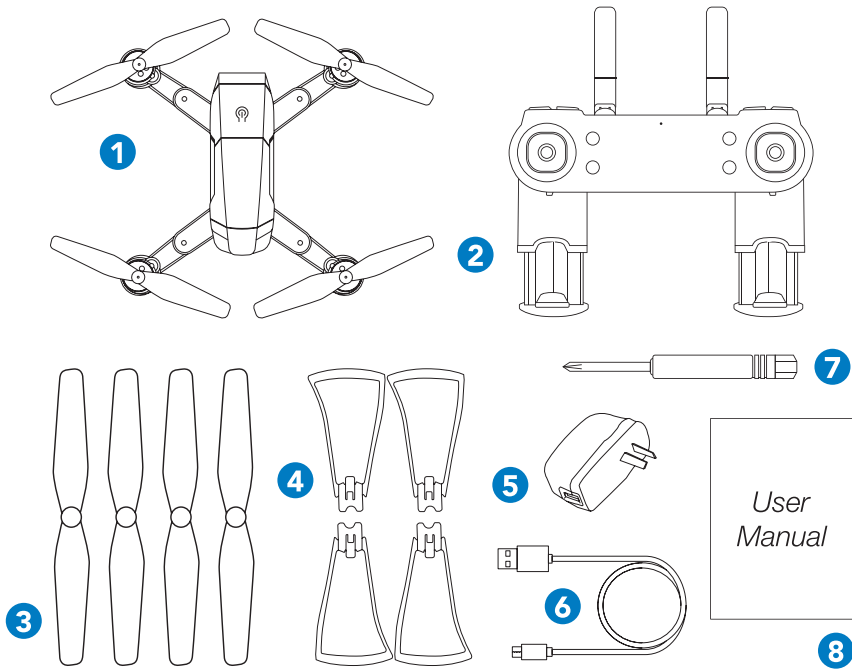
1.2 GENERAL SAFETY

Please familiarise yourself with your local legislation regarding drone usage before you begin using your Zero-X Edge Drone. Included in the package contents of your Zero-X Edge Drone are the Australian CASA guidelines, please read 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 Edge Drone any closer than 30 meters from people, animals or buildings. Check to make sure you are no closer than 5.5 kilometers 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 meters (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 Edge 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 Edge Drone in any conditions that could affect, damage or impair your view of the Edge Drone wet, dusty or sandy. These elements will damage the components of your Edge Drone.
- Please do not attempt to touch the Edge Drone when the Remote Control is powered on, or if the rotor blades are turning.
- When flying your Edge Drone, please keep in mind the privacy of others.

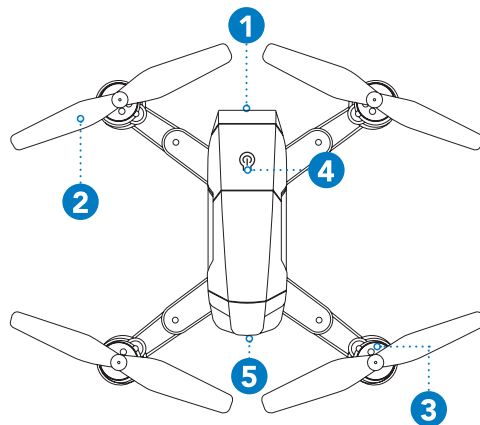
2.0 PRODUCT CONTENTS

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



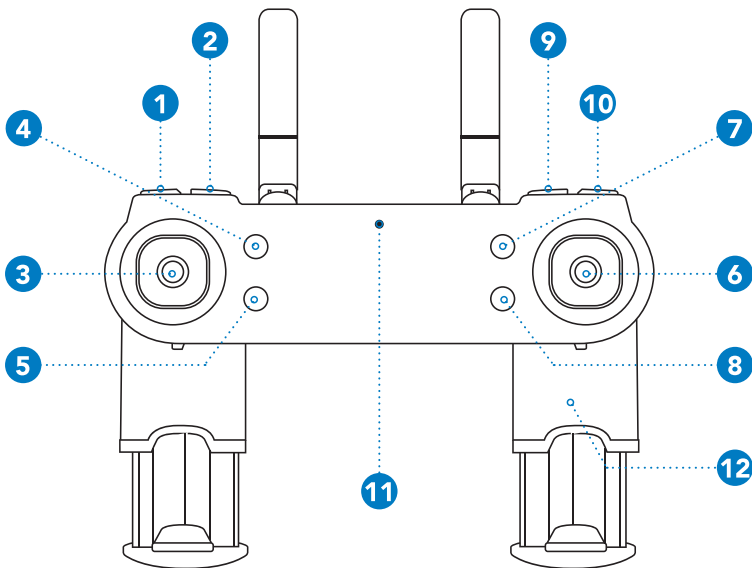
2.1 PRODUCT OVERVIEW

1. Camera
2. Rotor Blades
3. Motor
4. Power Button
5. Battery Release Button



2.2 CONTROLLER OVERVIEW

1. Speed
2. Return
3. Left Control Stick (Pulse / Descend, Yaw Left / Right)
4. One Key Take Off / Landing
5. Emergency Stop
6. Right Control Stick (Forward / Backward, Left / Right)
7. Photo
8. Video
9. Headless Mode
10. 360° Flip
11. LED Power ON
12. ON / OFF



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 Edge 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 FOR 240v CHARGING OF YOUR DRONE BATTERY. USE OF A NON ZERO-X CERTIFIED USB AC CHARGING ADAPTER WILL VOID YOUR WARRANTY AND MAY DAMAGE BOTH YOUR BATTERY AND DRONE.

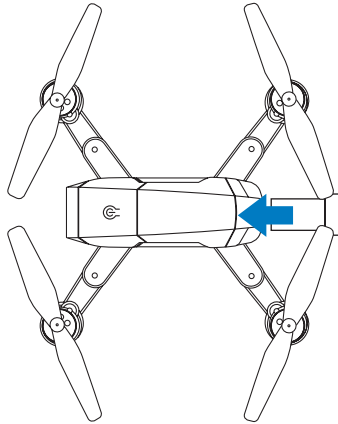
Connect the drone battery to the charging cable the light will glow red indicating charging is in process. The LED on the USB charging cable will turn off once charging is complete. To keep the battery life as long as possible, avoid removing the battery from the charging cable before charging is complete. If you have just finished flying your Edge drone, please allow the battery to cool down for at least 30 minutes before recharging. When the Edge 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 effect the flight time. The Edge battery can take up to 180 minutes to fully charge. If the battery has been on charge for any longer than 3.5 hours and indicator on the charging cable is not showing that the battery is charged, please remove the battery from the charger.

4.0 SETTING UP YOUR ZERO-X EDGE

4.1 INSTALLING THE BATTERY

For detailed instructions on how to install the battery please follow the steps below.

1. Ensure that the battery is fully charged.
2. Insert the battery into the rear of the drone in the correct orientation (the tab on the battery should be facing down).
3. Slide the battery all the way in until it securely slots into place.



NOTE:

- Do not force the battery, if the battery does not fit into position, please check that you battery in the correct orientation.

4.2 REPLACING ROTOR BLADES

If your rotor blades become damaged or the Edge drone is no longer flying straight, the rotor blades may need to be replaced. To replace the Edge's rotor blades please follow the directions below.

There are two types of rotor blades included with the Edge, A blades (clockwise rotation) and B blades (counter clockwise rotation). The blades are marked on top showing either A or B. The arms of the drone are also marked A and B showing what blades each motor is compatible with.

It is important that the rotor blades are installed on the designated motors or else the drone may not fly and you could potentially burn out the drone's motors.

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

1. Remove the black cap from the top of the rotor blade which you want to replace by using a small flat head screw driver (not included). This will reveal the securing screw.

2. Remove the rotor blades securing screw by unscrewing counter clockwise with screw driver (included).
3. Once the screw has been removed gently pull the rotor blade upward to remove the rotor blade from the motor stem.
4. Get your replacement blade and ensure to identify and match the correct blade with the motor (A rotor blade to A motor, B rotor blade to B motor).
5. Place the new rotor blade over the motor stem and press it to ensure it is locked.
6. Replace and tighten the screw.
7. Replace the black cap by pressing it back into position.

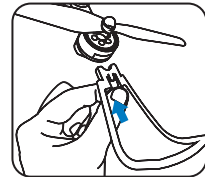
NOTE

- It is important that the correct rotor blades are installed on the correct motors. If they are installed incorrectly the drone will not fly and you could potentially burn out the drone's motors.
- When replacing multiple rotor blades please replace the blades one at a time to avoid any confusion in reattaching the rotor blades.

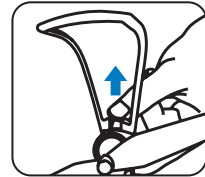
4.3 INSTALLING ROTOR GUARDS

Replacing the rotor guards is an option . Installing the rotor guards will protect your rotor blades and motors against bumps and light crashes.

1. To install the rotor guards please insert the rotor guards pegs into the designated holes near the motors on the Edge's arms.

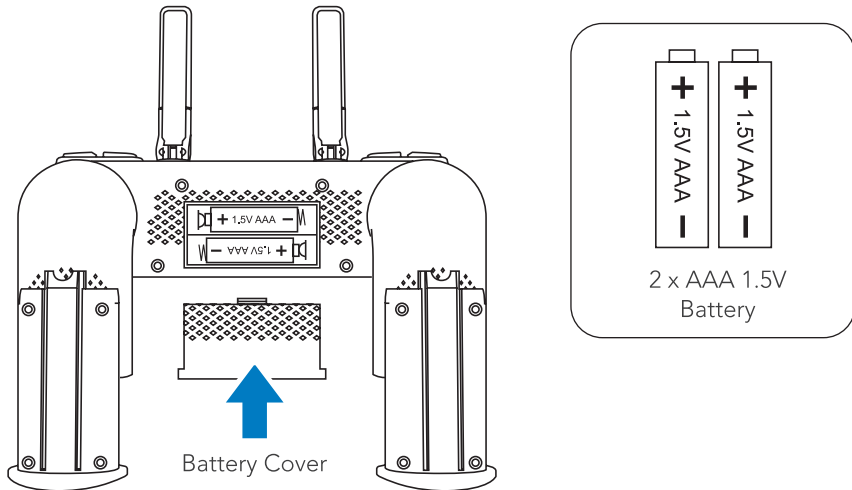


2. To remove the rotor guard, please press the middle part of rotor guard first, then take the rotor guard out.



4.4 REMOTE CONTROL

1. Extend the arms of the remote controller.
2. Remove the battery cover on the rear of the remote control by sliding it downward.
3. Insert 2 x AAA batteries (AAA batteries not included) making sure that they are in the orientation specified.



NOTE:

- The right arm of the controller is Power ON / OFF.
- By extending the arm lower, the controller will Power On make a beep sound and the Power Indicator will turn ON.
- Closing the right controller arm will turn off the controller.

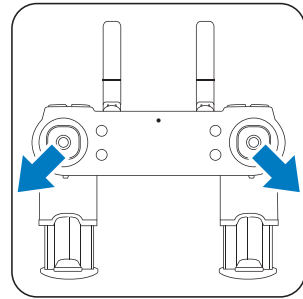
4.5 FLIGHT SAFETY

Before flying your Edge make sure that you are in a safe setting. CASA restrictions regarding flying drones require the drone to be no closer than 5.5kms from any airport or airfield while flying. Drones should also not be flown over populated areas or any closer than 30 meters 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 large bodies of water. If there are hazards present in your intended area of flight, please consider an alternative location.

4.6 SYNCING YOUR EDGE DRONE

1. Press the ON/OFF button on the top of the drone to turn the drone on, the LED light of drone will blink a blue colour (front) and a red colour (rear).
2. Extend the arms of the controller downwards, controller will make beeping sound and the LED indicator will Power On the controller.
3. Move the left control stick to the upside for 1 second and then move the left thumb stick to the downside for 1 second, the control will beep and the LED light of drone will stop blinking. LED will change to solid blue in front and solid red in rear.
4. Please ensure that the drone is kept on flat surface. Press the left and right control sticks outward and downward (left stick 7 o'clock and right stick 5 o'clock positions) for 3 seconds. Drone blades will start rotating and drone is ready to fly.



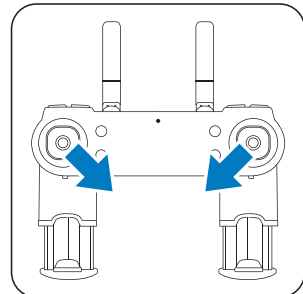
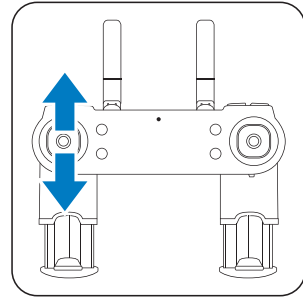
NOTE:

- Please pair the controller frequency within 5m of the drone to avoid interference with other signals

4.7 FACTORY RESET FUNCTION

To restore factory default settings following the steps below.

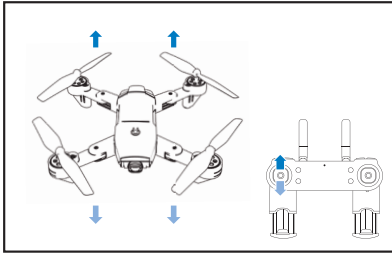
1. Press the Power ON/OFF switch to turn on the drone.
2. Turn the controller on, by moving the right arm of drone downwards.
3. Sync the drone by following the Syncing Process as mentioned in previous section.
4. Place the drone on flat surface, and hold the left and right control sticks inward & downward (left stick 5 o'clock and right stick 7 o'clock positions) for 3 seconds. The indicator on the drone will change from constant light to quick flashing lights. When the LED light of drone remains solid again, this means that the drone has been reset successfully.



5.0 FLYING YOUR EDGE

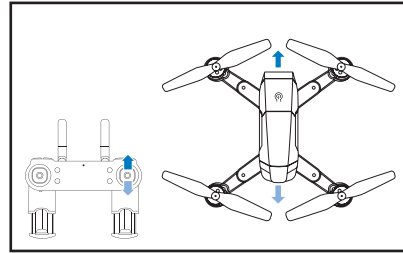
5.1 BASIC FLIGHT

UP AND DOWN



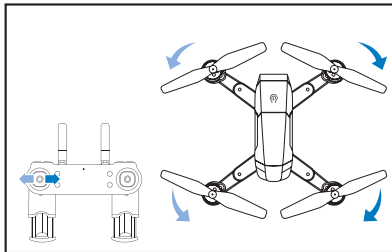
Push the left control stick up to gain altitude and down to descend

FORWARD AND BACKWARDS



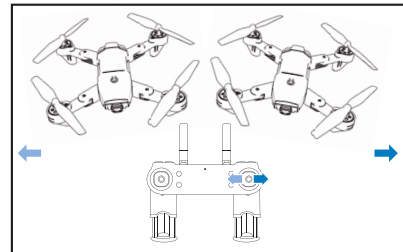
Push the right control stick up and down to fly forward and backwards.

ROTATION



Push the left control stick left and right to pivot left/right.

LEFT/RIGHT FLIGHT

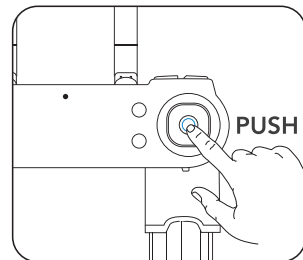


Push the right control stick left and right, to fly left/right.

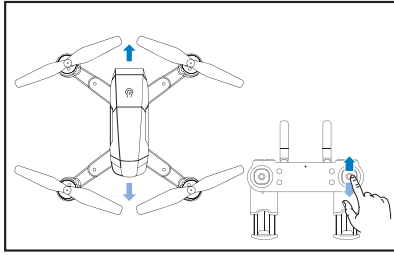
5.2 TRIM FUNCTION

Trimming is used to balance out your drone if it is drifting when flying. To adjust the trimming please follow the steps below. You can only use this trim function when drone is airborne.

1. Make sure that the Remote Control and Edge are switched on and correctly paired.
2. With right control stick centered, push down on it, once you hear the stick button click, release it. (This needs to be done each time you want to adjust trim in flight).
3. You can now adjust your trim using your left/right and up/down on your right controller stick. PLEASE REFER TO IMAGES 1-3 on Page 12.
4. To stop trimming, press down on the right control stick again.

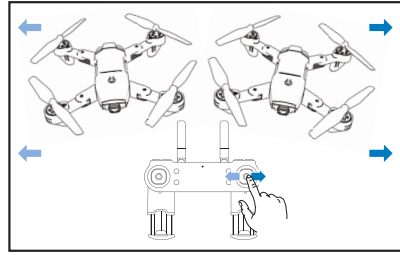


TRIM FORWARD/BACKWARD



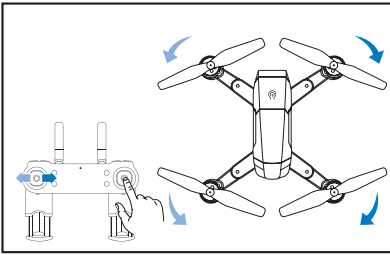
When the drone is hovering in place, and starts to drift forward, press the right control stick backwards until it's stable. If it drifts backwards, press the right control stick forward until it's stable.

TRIM LEFT/RIGHT FLIGHT



When the drone is hovering and starts to drift to the side, push the right stick to the left/right until the drone is stable.

LEFT/RIGHT TRIM



If the drone keeps rotating to left, press the left direction stick to the right until it's stable. If the drone keeps rotating to the right, press the left thumb stick to the left until it's stable.

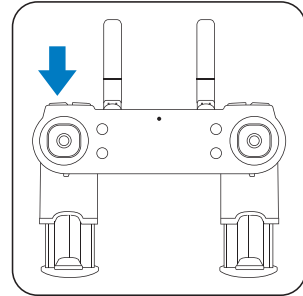
5.3

SPEED MODE

The Edge has 3 speed modes .

To cycle through the Speed Modes, use the speed button on the top left of the controller.

- Each mode will be identifiable by a series of beeps.
- Low Speed Mode (Default): One beep
- Medium Speed Mode: Two beep
- High Speed Mode: Three Beeps.



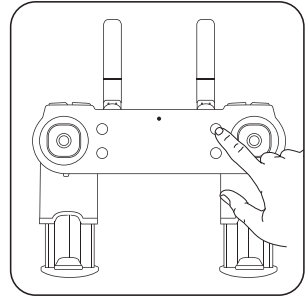
NOTE:

- For beginners it is suggested to operate drone at Low Speed.

6.0 CAMERA / VIDEO FEATURES

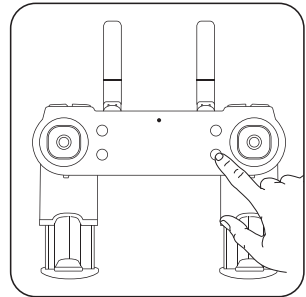
6.1 CAMERA MODE

1. With the drone turned on and paired, press the Photo button.
2. The remote control will beep once and the LED lights of drone will blink once to indicate that a photo was taken.



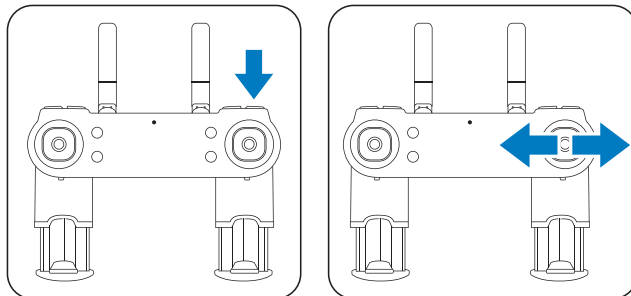
6.2 VIDEO MODE

1. With the drone turned on and paired, press the Video button.
2. The remote control will beep once and the LED lights on the drone will blink continuously to indicate that a video is being recorded.
3. Press the video button again to stop recording and the LED light on top camera of drone will stop blinking.



7.0 FLIP FUNCTION

Fly your drone to a height of more than 3 meters and press the FLIP button on the top right of your controller. Then immediately push the right controller stick to either left or right position to flip your drone.

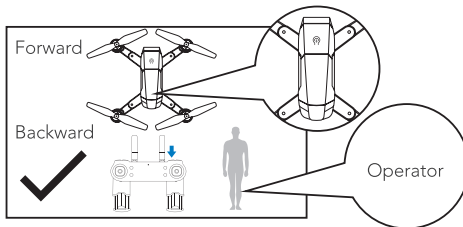
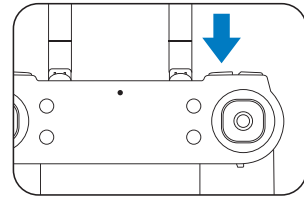


NOTE:

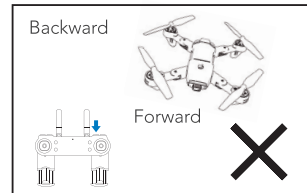
- The Flip function is only available during the first 8 minutes of flight time.

8.0 HEADLESS MODE

1. Press the headless mode button on the controller (shown in diagram to the right). The remote control will start beeping once indicating that headless mode has been enabled. To stop headless mode, press the headless mode button again; the controller will beep again.
2. When headless mode is enabled, the drone will move in the direction that the remote controller stick is pressed, regardless of its orientation. This makes it easy to bring the drone home when it is far away from you.
3. When using headless mode, the camera of the drone must point in the direction of flight; the back of the drone should be facing the pilot. See below.



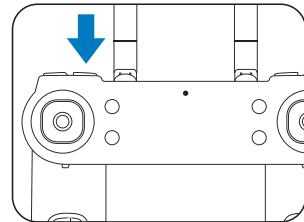
The correct take off position.



The incorrect take off position.

9.0 ONE KEY REVERSE

1. While the drone is in flight, press the reverse button on remote control, the controller will beep once and the drone will fly in reverse.
2. Press the reverse button again to cancel or push the right control stick in any direction to stop this function.

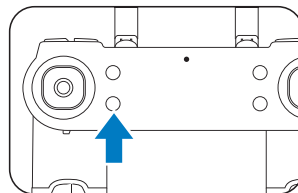


NOTE:

It is highly recommended that you push the reverse button only when you are aware that it is safe to reverse.

10.0 EMERGENCY / STOP

1. While drone is Airborne and emergency is activated , the rotor blades will lock and the drone will fall to the ground.



NOTE:

- It is highly recommended that you do not push this button unless it is an emergency.

11.0 OPTICAL FLOW POSITION

Optical flow position is a way to keep your drone flying stable, which ensures the drone takes pictures /video in high quality.

1. For drone with optical flow function, the Edge drone will come with 2 cameras.
2. One is front camera with full 1080P, the other is a bottom camera with 480P resolution.
3. During the flight, the drone will follow the image which the bottom camera took, which makes the drone fly stable.

NOTE:

- Floor pattern has to be different for Drone to recognise and be stable .

12.0 SAVING VIDEOS & PHOTOS USING YOUR SMART-PHONE

The EDGE drone uses your connected smart-phone to save all videos and photos. This makes reviewing and transferring your drone footage simple and easy. If you don't have your smart-phone connected via WIFI during flight, then no footage will be recorded or saved.

13.0 APP

The EDGE drone has a built in WIFI connection which is used to wirelessly connect your smart-phone to your EDGE drone allowing you to view the cameras live view, trigger recording, control and fly your EDGE drone.

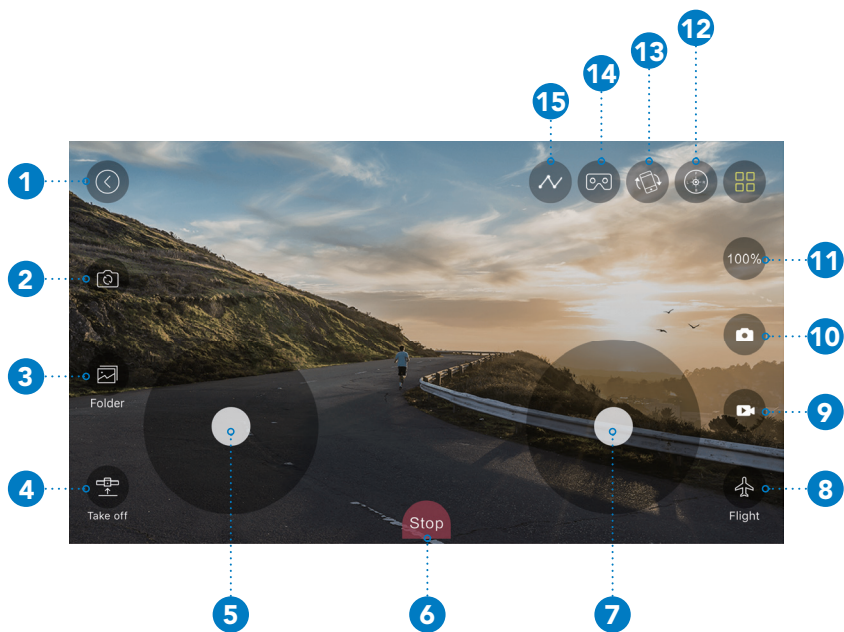
1. To connect your smart-phone to the EDGE drone please follow the instructions below.
2. Go to Google Play store if you are using an Android Smart-Phone, or The Apple Store if you are using an iPhone and search for the APP named "ZX-EDG". Once located download and install the APP.
3. To connect the APP, go into WiFi settings on your smart-phone and select the connection named ZX-EDG_XXXX. (Each 4 digit code is unique to each individual drone).
4. Once connected, open the ZX-EDG App on your smart-phone.

NOTE:

- When the drone has paired with the controller first, the APP will only operate to view the real time video. The APP will not be able to control the drone's flying.
- When the controller is turned off and the smart-phone is used to connect with drone, the APP can control the drone's flying.

13.1 APP INSTRUCTION

1. Back
2. Camera Change
3. Folder
4. One Key Take Off / Landing
5. Throttle
6. Emergency Stop
7. Rudder
8. Flight
9. Recording Video
10. Take Picture
11. Speed 30% / 60% / 100%
12. Headless Mode
13. Invert View
14. VR
15. Track Flight



14.0 DRONE MAINTENANCE

Avoid exposing your Edge and it's accessories to dust, sand and moisture as these can damage the Edge. If the Edge is exposed to dust or sand, use a soft brush to remove any visible particles.

15.0 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 you 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
- Counter Clockwise Motor
- Clockwise Motor
- Rotor Blades



16.0 WARRANTY TERMS & CONDITIONS

Our goods come with guarantees that cannot be excluded under the Australian and New Zealand 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 & New Zealand Consumer Law.

Zero-X 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 Zero-X.

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 Zero-X. Zero-X 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 Zero-X, will be borne by you.

Zero-X Address: 33 Quinn Drive, Keilor Park Victoria 3042 Australia

Ph: +61 03 8331 4800

Email: service@zero-x.com.au

17.0 NOTES

Capture the skies.™

ZERO-X

www.zero-x.com.au | www.zero-x.co.nz



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