



ZANO^Δ

USER GUIDE: ZANO DRONE

VERSION

1.5

2015

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ZANO Regulatory Information

No changes shall be made to the equipment without the manufacturer's permission as this may void the user's authority to operate the equipment.

FCC Requirements:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation

This device complies with the FCC safety requirements for RF exposure in accordance with FCC rule part §2.1091

Industry Canada Requirements:

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and

(2) This device must accept any interference, including interference that may cause undesired operation of the device

This device complies with the IC safety requirements for RF exposure in accordance with RSS-102 Issue 5 Section 2.5.2

Besoins pour les normes Canadiennes:

Cet appareil est conforme aux normes canadiennes d'utilisation hors-license RSS. L'utilisation est sujette aux deux conditions suivantes:

(1) Cet appareil ne doit pas causer d'interferences; et

(2) Cet appareil est capable d'accepter quelconques interferences, incluant les interférences qui pourraient causer un fonctionnement indésirable de l'appareil.

Cet appareil est conforme aux normes canadiennes de sécurité vis a vis de l'exposition aux HF en accord avec RSS-102 Edition 5 paragraphe 2.5.2

European CE Requirements:

Torquing Robotics declares that the ZANO1 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. <http://support.flyzano.com/wp-content/uploads/2015/07/EC-Declaration.jpg>

1. INTRODUCTION

Welcome to your new ZANO Drone and thank you for purchasing our product.

Our ZANO Drone is an ultra-portable, personal aerial photography and HD Video Capture Platform. It is small enough to fit in the palm of your hand and intelligent enough to fly itself with your guidance. The ZANO Drone connects directly to your smart device (iOS or Android) via onboard WiFi and enables you to instantly begin capturing and sharing moments.

Please read the entire manual and follow these steps to use the Torquing Robotics LTD ZANO Drone product. You can obtain up-to-date advice on changes at the www.flyzano.com website.

Regards,

The Torquing Robotics ZANO Team
www.flyzano.com

2. DISCLAIMER

Please read this disclaimer carefully before using the ZANO Drone. By using this product, you hereby agree to this disclaimer and signify that you have read them fully. Failure to follow these steps each time you use your ZANO Drone can result in issues that may damage or destroy your product. Your warranty does not cover damage resulting from user error.

The conditions for the effectiveness of the product are the professional installation and maintenance according to the operating instructions and the generally acknowledged rules of technology (e.g. by an authorised specialist) and the compliance with the operating instructions and the use of the Torquing Robotics Ltd products according to Torquing Robotics Ltd's technical and care instructions.

Torquing Robotics Ltd accepts no liability for damage(s) or injuries incurred directly or indirectly from the use of this product in the following conditions:

- non-conformity with the mounting instructions and instructions for use and care that were provided or are available at www.flyzano.com;
- installation, maintenance, repair or care by non-authorised persons;
- product defects that have been caused by the seller or third persons;

- damage attributed to normal wear or intentional damage
- improper installation or putting into operation
- lack of or incorrect maintenance
- products that have not been or are not used according to their intended purposes
- damage caused by force majeure or natural disasters, in particular, but not exclusively, in case of floods, fires or frost damage
- ZANO Drone is stated as an “autonomous, intelligent” drone, however, ultimate responsibility when using the ZANO Drone lies with the user. Autonomous is defined here as a highly autonomous pilot correction system, having the ability to make decisions in flight, but the autonomous decisions are based on the user-operated functions encoded. Torquing Robotics Ltd is not liable for any potential injury caused by ZANO Drone when it is in flight
- The use of the ZANO Drone in public areas may be prohibited & you should check your local laws in relation to this
- The ZANO Drone’s media functions should be used in respect of people’s privacy and you must not record and/or circulate any person’s image without their consent

4. SAFETY PRECAUTIONS & MAINTENANCE

- The ZANO Drone is not a toy
- Improper use of the ZANO Drone could result in serious injury. Please remain aware of the safety of yourself, people around you and in surrounding areas
- The ZANO Drone must not be cleaned with water or on a wet surface. Water, dust and sand can damage the ZANO Drone irreversibly. To clean the ZANO Drone, wipe gently with a soft dry cloth to remove residues
- ZANO Drone is stated as an “autonomous, intelligent” drone, however, ultimate responsibility when using the ZANO Drone lies with the user. ‘Autonomous’ is defined here as a highly autonomous pilot correction system, having the ability to make decisions in flight, but the autonomous decisions are based on the user-operated functions encoded. Torquing Robotics Ltd is not liable for any potential injury caused by ZANO Drone when it is in flight
- Do not touch the ZANO Drone when the propellers are rotating - wait until they have completely stopped
- Never operate your ZANO Drone near high voltage cables

At the end of this product's life, the product must not be disposed of via general household waste. Please contact your local municipality for correct disposal instructions accordance with your local laws and regulations.

Electrical and electronic equipment that are supplied with batteries (including internal batteries)

WEEE Directive & Product Disposal

At the end of its serviceable life, this product should not be treated as household or general waste. It should be handled over to the applicable collection point for the recycling of the electrical and electronic equipment, or returned to the supplier for disposal.

Internal / Supplied Batteries.

The symbol on the battery indicates that the battery is to be collected separately. This battery is designed for separate collection at an appropriate collection point.



LiPo Battery Disposal & Recycling



Lithium-Polymer (LiPo) batteries must not be placed in the household trash. Please contact your environmental or waste agency or the supplier of your model for local regulations and the location of your nearest LiPo battery recycling center.

5. BATTERY USAGE

ZANO Drone comes complete with a removable LiPo battery feature. The ZANO's Drone battery can be charged whilst it is docked inside ZANO via a standard MicroUSB connection.

- ✓ Keep LiPo batteries away from children and animals
- ✓ Do not use a punctured, swollen or damaged battery
- ✓ If you crash your ZANO drone, check the battery for damage
- ✓ Do not charge near flammable materials or liquids
- ✓ Do not charge in a moving vehicle
- ✓ Do not overcharge or leave the battery unattended during recharging
- ✓ Do not enter the batteries in reverse polarity
- ✓ Do not try to extinguish a LiPo battery fire with water
- ✓ Check charging leads are correctly connected
- ✓ Do not attempt to modify or repair or disassemble a LiPo battery
- ✓ Do not put battery in a pocket where they can short circuit
- ✓ Store your LiPo batteries inside a suitable container to prevent damage by fire, water or explosion

6. TECHNICAL SPECIFICATIONS


- ZANO Drone - 70 Grams (2.46OZ) weight
6.7cm X 6.7 cm (2.6" X 2.6")
- Onboard Micro SD Cradle
- Video Camera - 5 Megapixel HD
- Infra Red Obstacle Avoidance
- Echo Sounding Sonar
- High Resolution Air Pressure Sensor
- On-Board Digital Microphone - High Sensitivity
- WiFi Connectivity 802.11 B/G/N 2,4Ghz
- 32BIT 330 DMIPS PROCESSOR
- 2W Class D Audio Amplifier
- RGB 8*8 Pixel Front Display
- High Brightness RGB Landing Lights
- Bi-Directional Motor Control
- iOS & Android Compatible
- Removable Battery and Easy-Access Charging Port

7. THE ZANO DRONE PACKAGE

Colours will vary depending on your order. Spare parts & accessories are available through our website at www.flyzano.com online.



8. CONNECTING YOUR ZANO DRONE

1. Ensure your wi-fi is enabled and connect your device to the App StoreSM or Google PlayTM and download the **FlyZANO** application 
2. This app is available as a free download for ZANO owners. Note: You will not need to download updates for the app as the latest version is always available to you
3. Once you have downloaded and opened the **FlyZANO** app for the first time you will be ready to **register** your ZANO Drone by following the on screen prompts

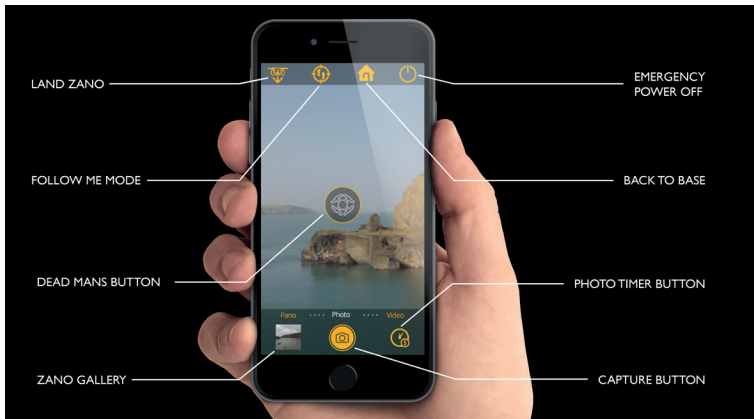
9. FLYING YOUR ZANO DRONE






PREPARING FOR LAUNCH

1. Fully charge your ZANO Drone & check your propellers are fitted correctly
2. Place your ZANO Drone on a safe level surface
3. Launch the FlyZANO app and the ZANO Drone will begin connecting to your smartphone device - once you have a slow flashing green LED light, you are fully connected
4. Your ZANO Drone app screen will open in 'Capture' mode which is in portrait orientation and will only open if GPS is activated. If no GPS is activated, 'Capture' mode will be unavailable and you must turn your smart device sideways into 'Free Flight' mode (landscape orientation)


FLYING IN 'CAPTURE' MODE (WITH GPS ENABLED)

1. Launch your ZANO Drone using the LAUNCH button
2. Tilt your ZANO Drone in the air with your on-screen joypad i.e. right, left, forward, backward to control direction
3. ZANO will hold it's position unless your thumb is in contact with the screen - This is called the ZANO "Dead Man's Button" to ensure maximum control of ZANO at all times







4. Whilst your thumb is in contact with the screen you can control altitude by sliding your thumb up and down, and control 360 rotation by sliding your thumb left or right
5. Use the STOP/START RECORD button  to record images in flight
6. Use the FOLLOW ME button  to enable your ZANO Drone to follow your smart device
7. Use the LAND button  to land your ZANO Drone to a flat surface
8. Using the HOME button  will send a request to your ZANO Drone to return to your smart phone device
9. Using the POWER OFF button  will send an urgent request to your ZANO Drone to power off in an emergency

FLYING IN 'FREE FLIGHT' MODE (NO GPS ENABLED)

1. Launch your ZANO Drone using the LAUNCH button 



2. Raise the altitude of your ZANO Drone using the left hand side altitude and rotation arrows 
3. Steer your ZANO Drone in the air using your two on-screen joypads
4. The left joystick controls altitude and 360 axis rotation, the right joystick controls direction (forward, backward, left, right)
5. Use the STOP/START RECORD button  to record images in flight
6. Use the LAND button  to land your ZANO Drone back down safely to a flat surface
7. Using the POWER OFF button  will send an urgent request to your ZANO Drone to power off in an emergency

10. IMAGES AND VIDEOS

Your ZANO Drone comes equipped with two media modes, photo and video.

You can share your ZANO Drone captured images and videos direct from your ZANO Drone to your favourite social media platforms.

Remember, the ZANO Drone's media functions should be used in respect of people's privacy and you must not record and/or circulate any person's image without their consent.



11. FAQ'S

- **How long will it take to charge my ZANO Drone?**

The ZANO Drone offers 10-15 minutes of flight time and it will require approximately 45 minutes to fully charge the removable batteries once flat.

- **How does the ZANOfuel work?**

The ZANOfuel is a portable charging stick that enables the user to charge their ZANO Drone batteries on the go! The stick enables you to fully charge a ZANO Drone battery four-five times per full charge of the stick.

- **Where can I buy replacement propellers & parts?**

You can purchase spare parts and accessories at www.flyzano.com



- **Where is the ZANO App available?**



You can download the app at the App StoreSM or Google PlayTM through your smart device.



- **Do the extended batteries differ to the standard ones?**
The extended flight battery will offer 7-10 minutes of additional flight time on top of the 10-15 minutes provided by the standard battery. Variation is dependent on the conditions the ZANO is flying in.
- **Is the ZANO Drone waterproof?**
ZANO Drone has multiple safeguards designed to avoid water damage but as a device the ZANO is not waterproof. We advise sensibility when using it over bodies of water and if rain or moisture is present please only use your Zano indoors.

For more Q&A see our forum at www.torquinggroup.com/forum

12. TROUBLESHOOTING









-  My ZANO Drone won't power up
 -  Check you have inserted the fully charged battery correctly

-  My ZANO Drone launches but appears unstable in the air
 -  Check that your propellers are not bent or damaged. This can affect the stability of the drone and make it unbalanced in flight

-  My on-board wi-fi isn't switching on?
 -  Check the drone is powered up and try re-starting your ZANO Drone if necessary. The boot loader will re-install automatically & search for wi-fi signal

13. REFERENCE TABLES

| ACTION | COLOUR |
|--------------------------------|-----------------------------------|
| BOOT | SLOW RED FLASH |
| BOOT | RAPID RED FLASH |
| SEARCHING FOR SATELLITE SIGNAL | SLOW BLUE FLASH |
| LOW SATELLITE SIGNAL RECEIVED | ALTERNATING GREEN BLUE SLOW FLASH |
| HIGH SATELLITE SIGNAL RECEIVED | SLOW GREEN FLASH |
| BATTERY LOW DURING FLIGHT | RAPID BLUE FLASH |
| BATTERY CRITICAL DURING FLIGHT | RAPID RED FLASH |

| FUNCTION | ICON |
|--------------------|---|
| LAUNCH |  |
| LAND |  |
| FOLLOW ME |  |
| DEAD MANS BUTTON |  |
| CAPTURE BUTTON |  |
| EMEGENCY POWER OFF |  |
| BACK TO BASE |  |
| PHOTO TIMER BUTTON |  |

14. SERVICE AND SUPPORT

Your new ZANO Drone comes with a 12 month warranty (excluding consumables which have a 6 month warranty). For more information about the warranty conditions and exclusions, refer to www.flyzano.com

If you purchased your ZANO Drone **online through us:**

You will need to contact us at support@torquinggroup.com with your purchase details including serial number and proof of purchase receipt. Please include details on the issue/s you have with the product.

If you purchased your ZANO Drone **through a retailer:**

You will need to return to your retailer with your proof of purchase.

