# LIMITLESS







Important Video to watch before 1st flight!

Scan code with your phone's camera. Click on link that appears

## **Drone-Clone**



perts



You'll quickly learn to fly this drone like a Pro! So don't be intimidated by this manual because we PROMISE it's easier than it looks.... even if you aren't tech savvy. We have great demonstration videos on our website located under the drone instructions tab. Head to www.DroneCloneXperts.com to watch now!

\*Please keep in mind our website www.DroneCloneXperts.com has important VIDEO instructions, which show you exactly how to properly, and quickly, set up your new LIMITLESS 5® Drone. The video includes demonstrations of how to properly calibrate the drone as well as perform all the incredible flight features LIMITLESS 5® has to offer!

Please don't fly until you watch the video. The Instructional Video and other helpful PDF resources can be found under the "DRONE INSTRUCTIONS" tab located in the Main Menu on our website www.DroneCloneXperts.com











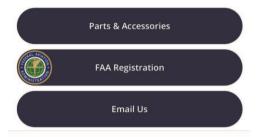
## How to Register LIMITLESS 5 Drone with FAA

(Scan QR Code for Detailed Info & Demonstration)



## **FAA RID**

(Remote ID)
New Rules Included





Tracking #: RID00000715

Created: 11.11.2023

## **Remote ID Declaration of Compliance**

**Declaration For: Unmanned Aircraft** 

Make:

## **Drone-Clone Xperts**

Model: FCC Identifier:



LIMITLESS 5 2BB3M-LIMITLESS5

Serial #(s): 

✓ View 

Download CSV

MOC Tracking Numbers: (#RID-ASTM-F3586-22-NOA-22-01) ASTM-F3586-22 with additions

SEE PAGES 8-10 for More Detailed FAA Info

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### **LIMITLESS 5® Quick Start Guide**

To learn more about drones before flying, head to our website www.DroneCloneXperts.com where you'll find videos, manuals, and other great instructional resources.

\*Please ensure the drone and remote control batteries are fully charged before every flight.

1. Precautions for Using the 3-Axis Gimbal Camera:

## **⚠** IMPORTANT NOTE:

**A.** Remove the protective cover from the camera before turning on! **B.** Do not touch the gimbal camera during start-up of this product! Reason: As soon as drone is powered on, the gimbal automatically calibrates itself. If you touch it during this process, the gimbal will fail to calibrate properly, and it could potentially damage the gimbal!

**DO NOT touch the camera** while the drone is on, ESPECIALLY during gimbal calibration!



FIRST, turn the DRONE on.

NEXT, turn the REMOTE on (Be sure to always follow this sequence).

After the remote control of the drone is powered on, wait for about one minute for the drone and remote to sync to each other.

**Note:** The drone must be placed on flat ground directly in front of the remote controller, and the remote controller makes a "beep" after the frequency is successfully connected, and the drone and the remote controller are successfully linked.

#### 

You must first **calibrate** the drone. Watch demonstration video at **DroneCloneXperts.com** for easy instructions. This is also known as "correcting geomagnetism and then the qyroscope". If ignored, it will affect normal use.







Drone Power
ON / OFF
Short press
immediately
followed by long
press

Remote control Power ON Button

#### 3. Geomagnetic Calibration \*(Please watch our instruction video for quick & easy demonstration)\*

Place drone on a horizontal surface while drone power is ON. Press and Hold VIDEO CAMERA button (Figure 1) for 5 seconds to perform geomagnetic correction. At this time, the aircraft lights flash quickly. Pick up the drone and (Figure 2) rotate horizontally 3x clockwise (see our instructional video for quick & easy demonstration). Don't stop rotating until you hear a beep. Once beep sounds, then hold drone with camera facing the ground (Figure 3) and rotate 3-5x clockwise. The remote control emits a beep when finished and the drone lights flash slowly. Geomagnetic correction is now complete! This can be hard to mimic from text instructions, so we encourage users to watch our demo video! \*\*Wether you rotate the drone clockwise or counter-clockwise does NOT matter! Just be sure to use the same direction for both horizontal and vertical rotations\*\*







4. Drone Gyroscope and Gimbal Level Calibration

Place the drone on a horizontal surface. Then press & hold PHOTO CAMERA button on top-left of remote control for 5 seconds (figure 4) until you hear a beep. The drone lights will initially flash quickly and then change to solid lights when calibration is completed. Do not touch or move the drone during this process UNTIL the lights STOP flashing rapidly.



Long press this key for 5 seconds



#### 5. Flight Mode Switch

Note: When the product is powered on, the default mode is GPS MODE. GPS mode is ALWAYS safest to fly in because, when in gps mode, the drone will know your exact location to fly back to in the event an issue arrises.

In GPS Mode, the drone can unlock the motors but CANNOT take off without first gaining at least **8 satellites**. 8 or more satellites displayed on the remote's screen indicates a **strong connection** There is an option to take off w/o first gaining 8 or more satellites – simply switch to "Indoor Mode" (aka "ATTI" mode) before the satellite positioning is completed. But **NEVER** use Indoor Mode when outside! To switch to ATTI MODE, simply press and hold the headless mode key for 5 seconds (*switching method shown in figure on the right*). After the switch is successful, the remote will emit a single BEEP sound. Keep in mind that when in Indoor Mode the drone will not have any functions related to GPS (one key return, low power return, runaway return, etc.)

Pay attention to the flight altitude distance to avoid the losing your drone in ATTI Mode!



ATTI MODE

Long press this key for 5 seconds

\*NOTE\*: After GPS positioning is completed, you cannot switch to ATTI MODE. To switch, you need to shut down and restart the drone and remote.

#### 6. Flight Speeds: NORMAL MODE and SPORT MODE

The product is powered on by default in NORMAL MODE (smooth & stable). This is the best speed mode to capture photo/video in. Also, the drone has obstacle avoidance functions while flying in normal mode. If you switch to SPORT MODE (Fast/High Gear Mode), the drone obstacle avoidance function is automatically turned OFF. So keep in mind when in SPORT MODE, the drone will not have all obstacle avoidance functions. Pay close attention to the flight height & distance, as well as your surrounding flight environment. Accidents can occur from improper flight due to user error or not taking the time to read/understand the instructions. Any questions please contact us!

Short press this key to switch speed



NORMAL MODE: Smooth/Stable Flight with Obstacle Avoidance Function

#### Unlocking Drone Motors





#### 8. Description of Remote Control Antenna

Short press this key to switch speed

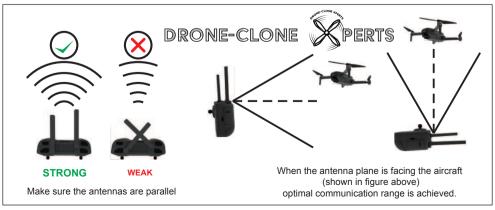


SPORT MODE: High-Speed Mode (NO Obstacle Avoidance Function)

When the throttle joystick & the directional joystick are pushed to the lower left corner and lower right corner at the same time (Figure 1), or pushed to the lower right corner and lower left corner at the same time (Figure 2), the drone will become unlocked & you'll notice the motors/propellers will start spinning in preparation for takeoff. The drone will remain on the ground during this time....until the left joystick is pushed forward, which will then cause the drone to take flight

**NOTE:** Motors will time-out after 5 seconds of no use. This is done for safety & to preserve battery life. Simply restart motors if they time-out (stop spinning) before you had a chance to take flight.

In order to make the transmission signal between the remote controller and the aircraft stronger, follow the instructions in the figures below. This will ensure better connectivity, longer flight range, and ultimate exploration!



#### 9 Drone and Remote Control Battery Charging

#### - How to Remove the Drone Battery -

Press the battery latch and remove the battery upwards. Keep fingers and machine clean and dry before operating. Otherwise the battery may become diffifult to

- Remote Control and Drone Battery Charging -





#### ↑ Tips:

- Notice charging area is on BOTTOM of Remote Control! Side port is strictly for data transmission.
- It is recommended to use a 5V 2.4A adapter for charging since a typical 5v 1a will charge slower.
  - You can purchase this faster 5V 2.4A adapter at www.DroneCloneXperts.com for \$14.99
- After the drone has been used, turn battery power OFF, take BATTERY OUT of drone, and place it in a cool / dry place to avoid heat damage which can result from the hot motors.

#### 10. Download the LIMITLESS 5 APP (App icon in app stores looks exactly as shown below)

(1) Scan the QR code to download and install the **LIMITLESS 5** App on your **Phone, iPad,** or **Tablet**. Or simply search the app store for the app named **LIMITLESS 5**. (The App Supports ALL smartphones using iOS, Android, or GOOGLE)

iOS (iPhone)







Android & Google

(2) Expand the antenna from top of remote. Expand phone holder entension from bottom of remote. Connect your phone to the remote using the compatible USB adapter cable that was included. Plug compatible side of USB cable into your phone, and plug the other side (USB Type C side) of the cable into the <u>right side</u> of the remote control. Then place your phone into the phone holder slot that extends from the bottom of the remote.



#### **Data Transmission USB Cable Compatibility**

The remote control comes with 3 different USB Cable Adapters. Connect the adapter according to the type of phone you have. View the chart below to find out which cable is compatible with your phone. Only 1 of the 3 will be compatible with your phone.

#### iPhone Users (IOS)

ALL iPhone users, regardless of model/year, will use this one.

1) "USB Lightning" to "USB Type-C" (All iPhone users must use this one).

#### ANDROID Users (Samsung, Google, etc.)

ANY type of phone OTHER THAN an iPhone will use 1 of these

2) "Micro-USB B" to "USB Type-C" (Android Users).

3) "USB Type-C" to "USB Type-C" (Android Users).



IMPORTANT NOTE: The connector at the <u>bottom of the remote is only used for charging the remote control</u>, it is **NOT** for image transmission connection data.

## **LIMITLESS 5® Flight Tutorial Video**

ATTI MODE / Indoor Mode: is also known as "Optical Flow Mode". We suggest you never fly in this mode unless you are inside in a WIDE-OPEN gym ot other large infoor facility, because GPS is not active and therefore Auto Return Home functions are not available in ATTI Mode. Additionally, the drone is not nearly as stable in this mode. When the drone is not stable and does not record where the home point is, this can lead to damage or loss of drone if outside. This is why we only suggest flying in GPS Mode. However, if you understand and accept responsibility for the risks mentioned and decide to fly in ATTI Mode, you'll first have to disable the safety failsafe by turning off GPS function. Once you've successfully turned off GPS function, you'll then be able to take-off successfully without needing to gain 10 satellites.

<u>GPS Mode</u>: is the default mode upon startup. It takes about 2-5 mins to acquire a strong GPS Satelite signal. Once your remote's display screen and/or LIMITLESS 5 APP shows 10 satelites, this indicates a strong enough GPS connection to attempt take-off.

You must be outdoors in an open area to get a strong enough GPS signal. Stay AWAY from high-voltage wires & other signal interference.

Scan QR code below to view the important L5 INSTRUCTION VIDEO to gain a much better understanding of these 2 modes as well as the many other features / functions LIMITLESS 5 has to offer. Also note there's more detailed information about these modes explained below

#### **View Instruction VIDEO:**

- 1. Open your phone's camera
- 2. Focus on the QR Code without taking a photo.
- 3. Click on the pop-up link that appears.



ATTI MODE (aka "INDOOR MODE" or "Optical Flow Mode"): Is applicable to large indoor open places, such as a spacious gym. The default settings are programmed for the automated protection program to prevent the drone from taking flight until the system connects to enough satellites to enter GPS MODE; however, if the user wants to fly indoors (in ATTI Mode) the user can simply override this automated failsafe protection, and by doing so, won't have to wait for a strong GPS satellite connection in order to take flight. But before you do this, make sure the drone and remote control are synced with each other, and that you've calibrated the drone successfully by following instructions for "geomagnetic & gyroscope calibration".

To fly in ATTI MODE, simply override the protection failsafe by pressing / holding the headless mode key for 5 seconds on the remote control (see photo below for location of this key). The remote control will emit a "BEEP" sound, and the remote's LCD display screen will change from "POSITIONING" to "ATTI MODE", which means the failsafe is OFF and the drone is now able to take flight indoors.

IMPORTANT NOTE: When in ATTI MODE, the drone will NOT have GPS safety features, including Auto Return Home functions, such as "low power return", "1-key return", etc. Please pay attention to the flight distance and altitude when flying in ATTI MODE. This is the reason why we suggest the drone should only be flown indoors when in ATTI MODE since the drone does NOT have GPS capabilities when in ATTI MODE. In order for GPS "Return To Home" (RTH) Functions to be activated, you must fly in GPS MODE. If flown outside in ATTI Mode, you assume all risk and are responsible if your drone is lost or crashes.



Press and hold the "headless mode" key for 5 seconds. The remote control will make a "BEEP" sound, indicating that GPS function is turned OFF. This will allow take-off while in ATTI MODE.

GPS MODE: Programmed for OUTDOOR flight in open areas that are free from signal interference. After the drone and remote control are synced with each other (takes about 40 secs) you'll notice the remote LCD display changes from "CONNECTING" to "POSITIONING". At this time, the drone begin searching for a strong satellite signal. The drone will enter GPS MODE after a couple minutes once it's gained at least 8 sattelites, which will be shown on your remote's LCD display. You must be outside with a clear view of the sky. While waiting for the drone to gain 8 or more satellites, calibrate the drone by following instructions for "geomagnetic & gyroscope calibration. There should be no obstructions such as high-rise buildings or cars, high-voltage power lines, etc., otherwise the drone may not be able to complete GPS satellite search and positioning. When 8-10 satellites are gained, GPS positioning is complete, which is indicated by a "BEEP" sound from the remote control, and the LCD display screen changes from "POSITIONING" to "GPS MODE". You can now unlock the drone motors and take flight in GPS mode.

IMPORTANT NOTE: If the drone does not gain enough satellites to enter GPS MODE, then the drone will NOT take-off. This is a built in failsafe to prevent users from taking flight outside of GPS mode. If the user takes off before entering GPS mode by overriding this protective failsafe, then keep in mind the drone won't know where to return home to if an issue arrises, such as loss of signal, low battery, etc.

#### Installation of microSD Memory Card — (Sold Separately)

LIMITLESS 4S has a microSD card reader, which can be found on the side of the drone towards the front. If looking directly at the drone's camera, the card reader will be located on the right-hand-side as shown in the figure below.

The microSD card reader in LIMITLESS 5 allows a MAXIMUM Capacity of 128GB (or less). This means any HIGH SPEED card rated "U3 V30" that has a storage capacity of 128gb or less will work. A high speed card is needed because LIMITLESS 5 records high resolution photos & videos in 4K Ultra-HD, therefore, you need to use a card that has FAST enough Read & Write speeds. Card must have a MINIMUM Write Speed of 30m/s (meaing your card should have the label U3 V30 written on it).

We designed a **HIGH SPEED 128GB** microSD card specifically for use in our LIMITLESS 5 drone, which can be purchased directly from our website **www.DroneCloneXperts.com**. Simply hover your mouse over the accessories tab and you'll see the 128gb microSd card as well as all the other accessories we have available for this drone such as, Spare Batteries, Spare Propellers, Payload Release Attachment for Drone Fishing, Drone Landing Pads, Quick Charging Power Banks, Charging Cords, and more.

#### How to INSERT the micoSD Card

#### HOLD CARD UP-SIDE-DOWN AND INSERT UNTIL YOU FEEL A CLICK.



#### LIMITLESS 5 CARD READER LOCATION

(MICRO SD CARD PURCHASED SEPARATELY)



If interested in our premium High Capacity / High Speed microSD Card, simply scan this QR code to be brought directly to the product page for purchase.





Or you can simply head to **DroneCloneXperts.com** and find the sd card under the "LIMITLESS Accessories" tab.

#### Troubleshooting: This is a very basic list, but remember you can contact us at Admin@DroneCloneXperts.com

No.	Problem	Solution
1	When in <b>ATTI MODE</b> indoor mode, the drone's motors spin, but the drone fails to take-off.  Additionally, the drone's lights are flashing instead of displaying a steady/solid pattern.	This is NORMAL! The drone has a failsafe protection program to prevent users from accidentally taking-off before gaining GPS connection. See directions below which explain how to disable the failsafe program Warning: Choosing to fly in ATTI MODE indoor mode by disabling GPS functionality can significantly impact drone stability and safety features. Proceed with caution and only if you fully understand the associated risks.  To disable the GPS failsafe, press and hold the GPS button on the remote controller for five seconds. Keep in mind that this will disable all GPS functions, rendering the drone unstable and preventing return-to-home features from functioning.
2	If you successfully disable GPS function and attempt to fly in ATTI MODE indoor mode but are still unable to take-off and the lights are flashing	You need to Recalibrate the Geomagnetism. Follow the <b>CALIBRATION section of the instruction video</b> to see exactly how to perform the series of spins nececary for successful drone calibration. Follow prompts in app.
3	After taking-off in ATTI MODE indoor mode, the drone keeps flashing and can't hover, floating around	The ground is too smooth and the environment is too dark, which will cause the optical flow lens to be unstable. Please get a good light and fly in a place where there is no reflection on the ground.
4	After taking off in GPS MODE mode, the drone keeps flashing, can't hover, and drifts or floats around. The remote control keeps switching between ATTI MODE and GPS MODE modes.	GPS positioning signal is not strong, interference is too high. Land & move to a wide-open area completely free of high voltage wires and any other unobstructions such as tall buildings or metal doors, etc.
5	When in <b>GPS MODE</b> , the drone's motors spin, but the drone fails to take-off. Additionally, the drone's lights are flashing instead of showing a steady/solid pattern.	Recalibrate the geomagnetism after restart
6	Drone shakes a lot and/or is flying erratically	The blade is deformed or damaged, it needs to be replaced
7	When the picture is tilted during aerial photography	Land the drone to a flat ground and perform the gimbal level correction again.



## **Full User Manual**









**GPS** Return Home









Dronie



Way Point Flight



Motors



Digital Image Transmission





Visual Obstacle Avoidance

#### Important notices and safety guidelines

Thank you for purchasing our product. In order to make it easier and more convenient for you to use this incredible LIMITLESS 5 drone, please read this manual and watch the instruction video carefully before operating. Refer back to these resources often before each flight!

#### Disclaimer

- This product is not a toy, but rather a high tech device that integrates mechanics, electronics, aerodynamics, high-frequency emission and other professional knowledge into one machine. It requires adequate knowledge, correct assembly, flight preperation procedures, skill, and practice of those skills to ensure to prevent accidents any/all accidents from ever occuring. The product owner must operate the control safely and with caution; improper operation may cause serious personal injury or property damage. Drone-Clone Xperts, Inc. is not responsible for how the owner operates this device and will not be held liable for any accidents, injury, or damage caused.
- This product is suitable for people who have experience in operating model drones and are not less than 14 years old. No child under 14 years of age may operate this product.
- If you have any questions about use, operation, maintenance, etc., please contact your local dealer or our company. Our company and the seller are not responsible for any loss and damage caused by improper use or operation including human injury.
- The product contains small parts. Keep it out of the reach of children to avoid the danger of accidental eating, choking, or suffocation.
- You are responsible for this aircraft to ensure that it will not cause harm to any person and/or property.

#### Laws And Regulations

To avoid possible injury and loss from illegal activities, the following must be closely adhered to:

- Never fly near a manned or unmanned plane or any other aircraft, and land immediately if necessary.
- It is forbidden to use aircraft at large-scale events. These venues include, but are not limited to,: sports competition venues and concerts.
- Never fly in areas prohibited by local laws, such as airports, high security areas, etc.
- Ensure that your drone does not affect a large manned aircraft (i.e. plane) on route when flying. Always be vigilant and avoid other aircraft. We sell anti-collision drone strobe lights on our website and amazon which you may purchase to assist in allowing others to see the location of your drone more clearly in all weather conditions. These strobe lights are low cost and helpful in keeping sight of your drone, & preventing accidents.
- Ensure requirements of the magnetic environment of aeronautical radio stations are followed. During a radio control order issued by the relevant state departments within the area, follow required commands to stop the use of your drone's remote control if ever asekd to do so.

#### Safety Precautions

An Unmanned Aerial Vehicle (UAV) flown by a remote control is a high-risk commodity, so keep away from ALL people, crowds, buildings, homes, and all other objects/property when flying. Improper knowledge, assembly, flight preperation, poor or reckless electronic control, can all lead to unpredictable accidents such as damage to the drone or personal injury. Operators must pay attention to flight safety and understand ALL responsibilities for accidents caused by their negligence. This is why it's absolutely vital that this ENTIRE user manual, as well as the LIMITLESS 5 INSTRUCTION VIDEO (found at DroneCloneXperts.com), be studied carefully by reading & watching in entirety, and referred back to as useful resources before each and every flight.

- Keep away from obstacles, property, animals, and people:
- —Due to wind and other environmental factors, the drone can have unpredictable flight speed and control status at times when flying, which has the potential for dangerous situations to present themselves. If you are unwilling or unable to take responsibility for the risk associated, please refrain from using this product. When flying, you must stay away from people, crowds, animals, and property such as, but not limitled to, high-rise buildings, high-voltage power lines, etc., and avoid flying in bad weather such as wind, rain, or colf conditions below freezing, or hot conditions above 90°. The commissioning and installation of the drone must be operated strictly in accordance with the operating instructions.

  —Pay attention to maintaining a distance of 5-10ft from the user operating the drone, and 50-60 feet from other people, animals, and property when the drone is flying.
- Keep away from humid environments:
- -The interior of the drone is composed of many precision electronic components and mechanical parts. Therefore, it is necessary to prevent the drone from getting wet or water entering the body, so as to avoid accidents caused by mechanical and electronic component failure. During maintenance, please wipe the surface stain with a clean cloth.
- Seek instruction from those who are experienced users:
- -You may encounter some difficulties in learning flight control techniques and skills during the early stages of learning. To assit in learning operating your drone, you need the guidance of experienced people. Please contact us at Admin@DroneCloneXperts.com if you need any additional help or instructional resources to ensure safe flight and progressive learning.
- Proper use of this product:

Please use our original parts for modification or maintenance to ensure safe flight. Please operate and use the product within the scope permitted by the product function, which shall NOT be used for any illegal purposes, and will adhere to ALL safety regulations (local, national, and international).

- · Safe operation:
- 1. Operate the drone with cation according to your current flight control skills. Fatigue, cognitive impairment, or improper operation will increase the risk of accidents.
- 2. Do not use near your ears! Misuse can cause hearing damage.
- 3. After the drone is used, turn battery power OFF and take battery out to store in a cool, dry place to avoid damage from the residual heat emitted from the drone's motors after flight.
- Keep away from high-speed rotating parts:

When the drone propellers are rotating, keep the pilot, surrounding people, animals, and objects away from rotating parts to avoid danger and damage.

- Keep away from heat sources
- —The drone is composed of metal, fiber, plastic, electronic components and other materials, and uses a lithium ion battery, so it should be kept away from heat sources as much as possible to prevent explosion of battery or deformation of drone materials from exposure to high temperature.
- To discard this product, please recycle properly in accordance with local laws and regulations.

#### **Product Configuration — Package Includes**



## **PACKING LIST**

x1

Drone

Remote Control X1

Drone Battery x ]

Vertical Mobile Phone Holder X1

USB Charging Cable x

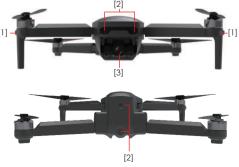
Image Transmission Cable X3

Screwdriver x1

Spare Propellers (2) X2

✓ User Manual X 1

#### **Drone Part Names**



[1] LED Light [2] Visual Obstacle Avoidance [3] 4K UHD Camera



[4] Propeller Blade [5] Motor [6] Power Indicator [7] Intelligent Battery [8] Power Button

## **How to Register LIMITLESS 5 Drone with FAA**

#### — Scan QR Code for Detailed Info & Demonstration —



Tracking #: RID000000715

Created: 11.11.2023

## **Remote ID Declaration of Compliance**

**Declaration For: Unmanned Aircraft** 

Make:

## **Drone-Clone Xperts**

Model:

LIMITLESS 5

FCC Identifier:

2BB3M-LIMITLESS5



**SCAN TO VIEW** 

FAA RID (Remote ID) New Rules Included

Serial #(s): 

✓ View 

Lownload CSV

MOC Tracking Numbers: (#RID-ASTM-F3586-22-NOA-22-01) ASTM-F3586-22 with additions

#### Remote Identification (RID)

The aircraft complies with ALL requirements of 14 CFR Part 89, and user should take note of the following:

- The aircraft automatically broadcasts Remote ID messages from takeoff to shut down.
- An external device such as a cell phone or tablet is required to be connected to the drone's WiFi Network to identify
  as a location source and must use a Drone-Clone Xperts® app such as the LIMITLESS 5 app in the foreground and
  always allow the Drone-Clone Xperts® app to obtain its accurate location information.
- · The connected external device (i.e. smartphone, tablet, ipad) must be at least one of the following:
  - a) FCC Certified personal wireless device that uses GPS with SBAS (WAAS) for location services; or
  - b) FCC Certified personal wireless device with integrated GNSS.

Note: If you're using an iphone (IOS) or android device purchased at any point within the past 10yrs, you are compliant.

- Also, the external device must be operated in a way that does not interfere with the location reported and its
  correlation to the operator's location.
- The aircraft automatically initiates a pre-flight self-test (PFST) of the Remote ID system before takeoff and cannot take off if it does not pass the PFST.
- The results of the PFST of the Remote ID system can be viewed in the designated Drone-Clone Xperts® app such as the LIMITLESS 5 app.
- The aircraft monitors the Remote ID system's functionality from pre-flight to shut down.
- If the Remote ID system malfunctions or has a failure, an alarm will be displayed in the designated Drone-Clone Xperts® app such as LIMITLESS 5.

**Note:** The pass criterion for PFST is that the hardware and software of the Remote ID required-data source and transmitter radio in the Remote ID system are functioning properly.

Note: Once the drone is ON and your smartphone is connected to the drone's wifi network, then open the LIMITLESS pap and the FAA Registration button will appear on the homescreen. This button will only appear when connected!

#### Remote Identification (RID)

These are quick basic steps, but please also view the complete FAA RID Registration Guide by Scanning the QR code located on the previous page. That guide will explain everything there is to know about Registration & Remote ID (RID). Drones are revolutionizing aviation, and the FAA has begun integrating them into the National Airspace System (NAS). As of the printing of this user manual (2024), the new RID rules have been delayed another 6 months....vet again.

Original date was September 16, 2023, but now RID rules are scheduled to take effect on March 16, 2024. So on and after March 16 2024, drone pilots who are required to register their UAS must operate in accordance with the Remote ID rule.

What is it? Remote ID is the ability of a drone in fight to provide identification and location information that can be received by other parties through a broadcast signal.

Why do we need it? Remote ID lays the foundation of the safety and security groundwork needed for more complex drone operations

Remote ID also helps the FAA, law enforcement, and other federal agencies locate the control station when a drone appears to be flying in an unsafe manner or where it is not allowed to fly.

#### FAA Registration — BASIC STEPS

Congratulations on owning your very own **LIMITLESS 5** Drone!

Before flying, the FAA requires that you meet the following requirements (as of March 16, 2024):

- 1. Register drones with FAA to obtain your specifc "Operator ID" (aka FAA ID).
- 2. Learn how the drone functions by watching the important instruction video & reading the user manuals.
- \*\*Please visit the FAA official website to complete the above requirements: www.faa.gov/uas/getting\_started

Once the drone is **ON** and your **smartphone is connected to the drone's wifi network**, then open the **LIMITLESS 5** app and the FAA Registration button will appear on the homescreen. This button will **only appear when connected!** 

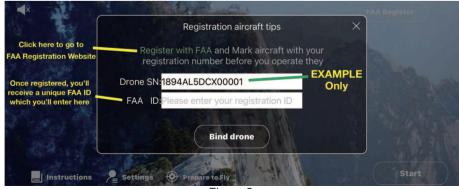
IMPORTANT: The serial number required to register the Operator ID (aka FAA ID) can be obtained through the LIMITLESS 5 App by clicking on "FAA Register" seen in TOP RIGHT corner of the homepage (*Figure 1*).

NOTE: Serial # will NOT be located on the drone itself.

— After successfully obtaining the Operator ID, be sure to enter it into the "FAA ID" section on the same page (Figure 2).



Figure 1



#### **Extra Accessories & Spare Parts**

#### **ACCESSORIES**



### **REPLACEMENT PARTS**



## **CONTACT US**

Emails — Admin@DroneCloneXperts.com
Be sure to spell DroneCloneXperts correctly!
There is only 1 letter 'e' before the letter 'X'.....NOT 2

Website - www.DroneCloneXperts.com

Company – Drone-Clone Xperts, Inc.

Address – 99 Columbia Rd. Morristown NJ 07960

With any new tech device, there's a slight learning curve. Drones are no different, but they're more fun to learn! Except if something isn't working as you think it should. If this happens DON'T WORRY!

Our data shows that 99.4% of the time it's due to a simple misunderstanding of the instructions. So if you're stuck after reading the manual & watching our videos, please contact us at 1 of the emails shown above.

Please also be sure to view the extensive Troubleshooting FAQ guide found on our website's Drone Instructions Page.

FLIP TO LAST PAGE NOW TO GET YOUR 3 FREE DRONE ACCESSORIES

#### 1. Propeller Installation & Replacement [VERY IMPORTANT]

**IMPORTANT:** Make sure all propellers are installed in the correct orientation as shown in the figure below. If the installation is incorrect, the aircraft will NOT fly normally and will likely crash. All propellers are labeled with either the letter 'A' or letter 'B' and must match the cooresponding arms/legs labeled with the same letter. SEE VIDEO on **DroneCloneXperts.com** if you are unsure.





#### 2. Aircraft Lithium Battery



- 1. Battery Power Button
- 2. Battery Level Indicator
- 3. USB Charging Port











#### Turn Battery Power ON

- -To turn the drone ON once the battery is installed, give 1 quick **short press** of the power button, immediately followed by a **long press & hold** of the power button for 3 seconds. A series of BEEPS will sound & lights will flash as the drone turns ON.
- -When only one light shows on the battery power indicator, this indicates very low battery power. Please charge the battery immediately to avoid damage caused by excessive discharge of the battery.

#### **Battery Installation**

- Gently push the battery down into the drone as shown.
- -After the installation is complete, the battery clips on both sides will pop up, at which time you should check to confirm the battery is securely locked in place.





REMINDER: If the battery is not installed properly, it is likely to cause an interuption in power, which can lead to major accidents.

After the drone is used, please turn off battery power and remove it from the drone. Stroe the battery in a cool / dry place to prevent battery damage from the heat eminating from the drone's motors after flight.

Note: If the drone does not take off for more than 10 minutes after it is powered on, the battery will start an automated protection program and power off by itself! This is a newly added safety feature and is completely normal.

#### Battery Removal

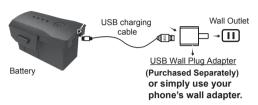
- Press the battery latches on both sides and remove the battery by pulling up & away from the drone body.
- Keep fingers and machine clean and dry before operating. Otherwise the battery may become diffifult to remove.
- If you ever notice the battery is difficult to remove, then check the battery for swelling or puffing.

If swollen, dispose of it immediately. Swelling can lead to explosion. New batteries can be found on our website.





#### Drone battery charging





- Insert the plug in the correct way.
- It is recommended to use 5V 2.4A adapter for charging because a typical 5V 1A will charge more slowly (such as the adapter that came with your smartphone).



#### - You can purchase this faster 5V 2.4A adapter at www.DroneCloneXperts.com for \$14.99

- When charging the rechargeable battery, do not allow children to operate, and do not leave unsupervised. Charging must be carried out by an adult. It must be kept away from flammable materials during charging and at ALL other times. The adult guardian should NEVER leave the aircraft or its batteries unattended while charging. NEVER leave batteries charging at home without an adult present to supervise. Be sure to unplug batteries from charger whenever no one is home to supervise the charge.
- Do not short circuit or squeeze the battery. This can result in an explosion. Only charge INDOORS under Adult suplervision.
- If battery is ever puffy, swollen, or bigger in size at ANY moment, immediately stop use (or stop charging) and immediately dispose of the battery properly. Swollen batteries are at greater risk of explosion because they are not stable.
- The power supply terminals should not be taken out of the model, and the terminals should not be short-circuited; do not short-circuit, disassemble or throw the battery into fire or expose to high temperatures. Do not place the battery in high temperature environments (such as in/near a fire, in/near the sun, near any heating device, or even outside on a day over 85 degrees.).
- This drone, remote control, and battery can only use the recommended charging cord that was included with your order for charging. If you need a replacement charging cord or any other accessories, please visit our website or contact us at Admin@DroneCloneXperts.com. Regularly check wires and parts for damage. If you find any damage, stop using it immediately.
- The battery must be charged and stored in a cool / dry place after the flight. If not in use, it is recommended to charge the battery at least once every 3 months to avoid over-discharging the battery. Otherwise the battery can incur permanent damage.

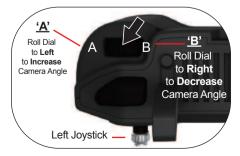


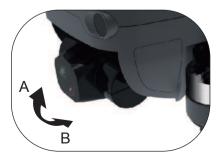
**Reminder:** To use the drone's camera for photos, video, and to view real-time transmission of the live video feed, your drone needs to be used with the **LIMITLESS 5 App**. You'll download the LIMITLESS 5 app on your smartphone, tablet, or iPad. For the download process, please refer to the APP section of this user manual.

#### 3. Camera Control - Adjusting Camera Angle

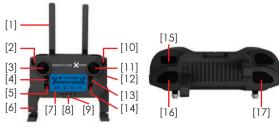
The camera has an autonomous 3-Axis Gimbal with EIS technology which is fully automated. This means stabalizing the camera is completely autonomous without any input needed from the user whatsoever. However, you can wirelessly adjust the ANGLE of the main camera via the remote control, which is capable of adjusting the angle up/down 70° to ensure the best aerial viewing experience. As shown in the figure, there's a scroll wheel (aka roller dial) located on the top/left of remote. Simply scroll the wheel in left/right directions as shown in the figure to easily adjust the camera angle up and down

#### View from TOP LEFT Side of Remote





#### Remote Control Button Functions



[1] Remote control antenna

[2] Change Speed / Long press matching knob to adjust focus

[3] Up, Down, Rotate Right, Rotate Left (Rotates 360°)

[4] LED landing light ON & OFF (short press) / Long press for 3 seconds to turn obstacle avoidance function OFF

[5] One button take-off & landing

[6] Mobile phone holder

[7] LCD display

[8] Indicator light of remote control

[9] Charging port (plug usb cord in here to charge remote)

[10] GPS Return To Home (RTH)

[11] Fly Forward / Backward, Right / Left (side-to-side)

[12] Image transmission port (plug transmission cord in here)

[13] Headless mode/long press for 5 seconds to turn off GPS

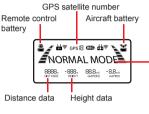
[14] Power button (turn remote on)

[15] Scroll Wheel to adjust camera angle/focus

[16] Take photo (short press) / Long press to calibrate gyroscope

[17] Video recording (short press) / Long press to correct geomagnetism

#### LCD Display on Remote



POWER ON POWER OFF PLUG IN USB CONNECTING ATTI MODE GPS MODE NORMAL MODE SPORT MODE GOING HOME **EXIT GO HOME** VIDEO ON VIDEO OFF

TAKE PHOTO GIMBAL UP GIMBAL DOWN

POSITIONING

Start up Shut down Charging

Pairing drone to remote (takes 40-60secs to gain connection)

Indoor mode (need more satellites to enter GPS mode. Won't take flight yet)

GPS mode (sucessfully gained enough satellites to take flight)

Smooth / Low speed mode

Sport mode

Return To Home (RTH)

Stop returning (Stop RTH)

Start recording Stop recording

Photograph

Camera angle up

Camera angle down

Searching for satellite signal

#### Remote Control Battery Charging



It is recommended to use 5V 2.4A adapter for charging.

You can purchase this faster 5V 2.4A adapter at www.DroneCloneXperts.com for \$14.99

#### Pre-flight Inspection

of the remote control and drone sufficient?

Are the propeller blades installed correctly? Letter 'A' propellers must match letter A arms/legs. Opposite is true for 'B' Do the drone motors start normally?

#### Drone Pairing to Remote

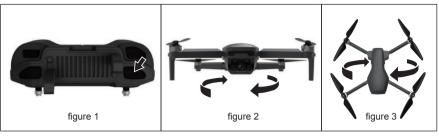


Turn the remote control ON Turn on the drone ON

Wait 40-60 seconds until the remote control makes a "BEEP" sound. This indicates the remote and drone are paired successfully.

#### CALIBRATION: Geomagnetic Correction – Using Remote Control (rather than the LIMITLESS 5 app

We strongly suggest to use the designated LIMITLESS 5 App to calibrate your drone (aka geomagnetism, gyroscope & gimbal level corrections), simply because most users find it to be an easier process when using the app. However, you can perform the same corrections and achieve the same results via use of the remote controller. To use the remote for these calibration corrections, follow instructions below:



After the drone is successfully paired to the remote, press and hold the VIDEO CAMERA button on the remote for about 5 seconds (figure 1), the remote control will BEEP, drone lights flash in a steady sequence, and the remote's LCD screen will display "COMPASS Z". Now pick up the drone about 3-5 ft. above the ground and rotate it clockwise 3x (figure 2) horizontally until you hear a "BEEP" and notice the remote's LCD screen changes to "COMPASS X". Then hold the drone vertically with the camera facing the ground (figure 3) and rotate clockwise 3x until you hear a final "BEEP", which indicates geomagnetic calibration has been completed successfully. \*\*Wether you rotate the drone clockwise or counter-clockwise does NOT matter! Just be sure to use the same direction for both horizontal and vertical rotations\*\*

**NOTE:** Make sure the take-off environment is open, free of interferences, and the satellite signal is greater than 7 before attempting take-off. take-off. If you don't have more than 7 Satellites the drone won't take flight. Just wait until signal is stronger than 7.

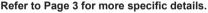
- Do **not** perform calibration in areas with strong magnetic fields, such as magnetic deposits, parking lots, construction areas with underground steel bars, etc. Also, do **not** calibrate near large pieces of metal.
- Do not carry ferromagnetic materials with you during calibration, such as keys and mobile phones.

#### CALIBRATION: Gyroscope & Gimbal Correction – Using Remote Control (rather than the LIMITLESS 5 app)



- •Place the drone on a level surface, press and hold the **PHOTO CAMERA** button for 5 seconds (figure 4) until a "BEEP' sounds.
- •The remote LCD screen will display "GYRO CALIBRATION" and the drone lights will flicker quickly until the process is completed within 5-10 secs.
- •This Gyro / Gimbal calibration is required to ensure the 3-axis gimbal camera is completely level before take-off.

#### Connect Phone to Remote via Real-Time Transmission USB Cable and Open LIMITLESS 5 App



Expand the antenna from top of remote and phone holder from bottom. Connect your phone to the remote using the compatible USB adapter cable included. Plug compatible side of the USB cable into your phone, then plug the other side (USB Type C side) of the cable into the right side of the remote control. Then place your phone into the phone holder slot that extends from the bottom of the remote.





The remote control comes with 3 different USB Cable Adapters. Connect the adapter according to the type of phone you have. View the chart below to find out which cable is compatible with your phone. Only 1 of the 3 will be compatible with your phone.

#### iPhone Users (IOS)

ALL iPhone users, regardless of model/year, will use this one.

1) "USB Lightning" to "USB Type-C" (All iPhone users must use this one).

#### ANDROID Users (Samsung, Google, etc.)

ANY type of phone OTHER THAN an iPhone will use 1 of these

- 2) "Micro-USB B" to "USB Type-C" (Android Users).
- 3) "USB Type-C" to "USB Type-C" (Android Users).

**IMPORTANT NOTE:** The connector at the bottom of the remote is only used for charging the remote control, NOT for image transmission connection data.

#### Remote Control Dual Mode

The default Mode2: GPS / optical flow dual mode when booting. When the Mode2 mode is enabled, it needs to be used outdoors in an open place without signal interference such as high-rise buildings and high-voltage wires.

Mode1: Optical flow mode. When using this mode, you need to turn off the GPS function before taking off.

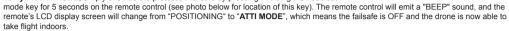
[Cannot turn off Mode 2 (GPS mode) after GPS positioning]

#### Flight Mode Types: ATTI MODE vs GPS MODE

1. <u>ATTI MODE</u> (aka "<u>INDOOR MODE</u>" or "Optical Flow Mode"): Is applicable to large indoor open places, such as a spacious gym. Refer to PG 4.

The default settings are programmed for the automated protection program to prevent the drone from taking flight until the system connects to enough satellites to enter GPS MODE; however, if the user wants to fly indoors (in ATTI Mode) the user can simply override this automated failsafe protection, and by doing so, won't have to wait for a strong GPS satellite connection in order to take flight. But before you do this, make sure the drone and remote control are synced with each other, and that you've calibrated the drone successfully by following instructions for "geomagnetic & gyroscope calibration".

To fly in ATTI MODE, simply override the protection failsafe by pressing / holding the headless



**KEEP IN MIND** – If you take flight in ATTI Mode, you won't be able to switch back to to GPS mode during that flight session. If you need to use GPS mode, then land the drone and restart the drone & remote control outside with a clear view of the sky. Then wait for it to connect to at least 8 satellites, at which time the remote control will display GPS MODE to indicate you now have a strong GPS connection and are ready to take-off.

IMPORTANT NOTE on <u>ATTI MODE</u>: When in ATTI MODE, the drone will NOT have GPS safety features, including Auto Return Home functions, such as "low power return", "1-key return", etc. Please pay attention to the flight distance and altitude when flying in ATTI MODE. This is the reason why we suggest the drone should only be flown indoors when in ATTI MODE is ince the drone does NOT have GPS capabilities when in ATTI MODE. In order for GPS "Return To Home" (RTH) Functions to be activated, you must fly in GPS MODE (also known as Mode 2).

2. GPS MODE (REFER TO PG 4): Programmed for OUTDOOR flight in open areas that are free from signal interference. After the drone and remote control are synced with each other (takes about 40 secs) you'll notice the remote LCD display changes from "CONNECTING" to "POSITIONING". At this time, the drone begin searching for a strong satellite signal. The drone will enter GPS MODE after a couple minutes once it's gained at least 8 sattleities, which will be shown on your remote's LCD display. You must be outside with a clear view of the sky. While waiting for the drone to gain 8 or more satellites, calibrate the drone by following instructions for "geomagnetic & gyroscope calibration. There should be no obstructions such as high-rise buildings or cars, high-voltage power lines, etc., otherwise the drone may not be able to complete GPS satellite search and positioning. When 8-10 satellites are gained, GPS positioning is complete, which is indicated by a "BEEP" sound from the remote control, and the LCD display changes from "POSITIONING" to "GPS MODE". You can unlock the drone motors and take flight in GPS MODE.

IMPORTANT NOTE on GPS MODE: If the drone does not gain enough satellites to enter GPS MODE, then the drone will NOT take-off. This is a built in failsafe to prevent users from taking flight outside of GPS mode. If the user takes off before entering GPS mode by overriding this protective failsafe, then keep in mind the drone won't know where to return home to if an issue arrises, such as loss of signal, low battery, etc.

#### Speed Modes: LOW (Normal Model) and HIGH (Sport Mode)

NORMAL MODE is the default mode upon turning drone on. Obstacle Avoidance function is ENABLED in this Low Speed mode. If you switch to SPORT MODE, the drone will fly FAST with sharp meneuvering, but obstacle avoidance functions are disabled in this mode as a result. Therefore, to ensure accidents don't occure, it's impertive you pay attention to the drone's surrounding environment, as well as its flight altitude and distance.

Short press this key to switch speed to NORMAL MODE



**NORMAL MODE**: Low speed with stable flight. Obstacle Avoidance function ENABLED in this mode.

Short press same key to switch speed to SPORT MODE

ATTI MODE



**SPORT MODE**: High-speed mode. Obstacle Avoidance function DISABLED in this mode.

#### **Unlocking Drone Motors**





To unlock your LIMITLESS 4 drone, pull **BOTH joysticks** simultaneously **DOWN & IN** (Figure 1), or **DOWN & OUT** (Figure 2). This will unlock the drone by starting the motors (propellers will spin but drone won't take off until you either **press the take-off button** on the remote control OR you **push the LEFT joystick upwards** 

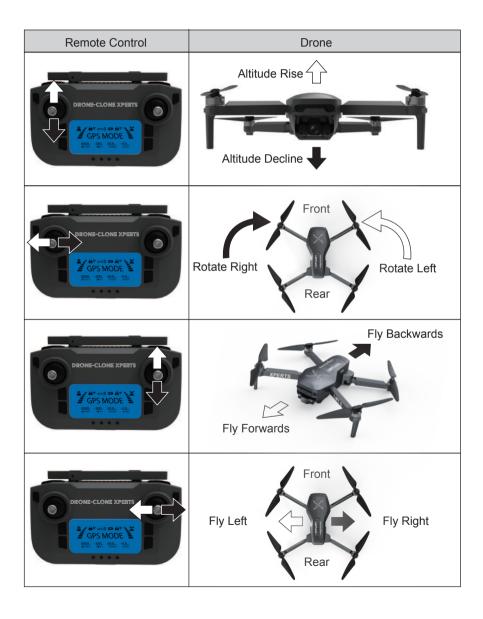
-18-

#### Basic Flight

#### Basic flight steps

- 1. Code the remote control with the drone, and the drone completes the initialization.
- 2. Geomagnetic calibration. (Do not need to calibrate each time at the same location)
- 3. After the drone gyroscope is detected, unlock the drone.
- 4. Push the throttle stick up, the drone will take off, and the left / right joystick will control the attitude of the drone.
- 5. Turn off the power of the drone first, and then turn off the power switch of the remote control.

#### **Directional Flight Controls**



#### One-click Takeoff / Landing



- Once the drone is unlocked (blades will be spinning), press the one-button take-off button while blades are still spinning. and the drone will automatically take off to hover at a height of about 5 FT.
- When the drone is in flight, press the same one-button take-off / land button, and the drone will automatically land on the around.

#### Headless Mode



- Press the headless mode button, the remote controller will make a "BEEP" sound. In this mode, Right and Left directions remain the same regardless of which way the drone's nose is facing.
- This is a fun mode to try out and can make things easier for beginners, but not a mode you really want to learn in.

#### Return To Home (RTH) Functions

The drone has autonomous return to home functions. If the home point is successfully recorded before takeoff, then the drone will autonomously return to the recorded home point and land safely to ensure you never lose your drone. The LIMITLESS 5 drone will return on it's own in the following 3 flight scenarios:

- 1. One-Click Return
- Interrupted or Loss of Signal Return
- 3. Citically Low battery Return.

Note for return flight:

- During auto return, the drone cannot avoid obstacles.
- When GPS signal is not good or GPS is not working, you cannot return to home
- ATTI MODE indoor mode does not have this function

Home Point Recorded: During takeoff or in-flight, when the GPS signal receives more than 7 or 8 Satelites for the first time,

#### One-Click Return To Home (RTH)



- When the GPS signal is good (the number of satellites is greater than 8), you can command the drone to fly home on its own by pressing the RTH button on the remote control (see figure).
- You may use the stick to control the drone to avoid any high-lying obstacles in its path on its route home.
- Remember the drone immediately climbs to an altitude of 65 FT to help avoid any tall objects on its route home.
- ●To EXIT "Return to Home" automation, simply press the home button again and you will immediately regain complete control of the drone.

#### Interrupted Signal Return To Home (RTH)

If the remote control signal and the APP signal disconnect for more than 6 seconds, the flight control system will autonomously take control of drone. The drone will fly back home until stronger communication is found, and then allow you to take control from there. This can happen unexpectedly-- even if GPS signal is initially good (the number of GPS satellites is greater than 8), the compass is working normally, and the drone successfully records the home point.

#### Critically Low Battery Return To Home (RTH)

After the drone is low-voltage, the indicator light will flash slowly. At this time, the drone will automatically return to the vicinity of the takeoff point 20 meters. (After the low-power drone returns to the vicinity of the take-off point, the height and distance of the drone will be limited to 20 meters)

/IN Reminder: The drone is in the low-power return mode, and the remote control cannot cancel the return mode.

#### The Influence Of Temperature And Environment On The Use Of Drone Lithium Battery:

- 1. Temperature affects ALL types of lithium batteries: The best battery temperature is 68°-86°F. Low temperature environments severely reduce activity of lithium ions, which causes the battery discharge capacity to become weaker, and therefore flight time will be shortened.
- 2. The impact of the flight environment on flight time: When drones encounter wind or headwind during flight due to the greater resistance, they consume battery power more quickly, which shortens the flight time of that flight.

Therefore, when flying outdoors, pay close attention to the weather and environment. If the temperature is low or wind is high, either don't fly or be careful not to fly too far or high. Also, return home well in advance with sufficient battery power to avoid insufficient power while returning. In cold temps, battery power can drop unexpectedly. Electric car owners are very familiar with this phenomena and have to be careful during long trips in the cold. Drone batteries are negatively impacted the same exact way

#### Photo / Video

Press the " " button on the remote control to take a photo, and the remote control LED screen displays Show TAKE PHOTO.

Press the " ➡" button on the remote control to record, and the remote control LED screen displays

Show "VIDEO ON" to start recording, and then press the " 🖼 " button

The remote control LED display shows "VIDEO OFF" to stop recording.



#### Working Principle of Gps Function and Precautions for Use

After the drone and remote control are successfully paired, the Drone's GPS module will begin searching for satellites orbiting the earth to gain a strong GPS connection. When the drone obtains a strong GPS connection (only takes 1-3mins when drone & remote are on and outside with a clear view of sky), then the remote control screen will display "GPS MODE", which means the GPS positioning is complete, and the drone will remember the take-off point.

#### **Drone Signal Interruption During GPS Mode Takeoff**

Scenario 1: Loss of UAV and Remote Control Signal

• If the UAV and remote control signal are interrupted for more than 6 seconds due to distance or signal interference, and the GPS signal remains strong, the UAV will automatically initiate a return-to-home (RTH) procedure.

Scenario 2: Loss of UAV GPS Signal

 If the UAV encounters obstructions or signal interference that disrupt its GPS signal reception, it will be unable to determine its location and cannot initiate an RTH procedure. In this case, manually trigger the RTH or one-key return function to bring the UAV back to the takeoff point.

#### Return Flight

A. When the drone starts the return-to-home procedure, it will return at the default altitude of 66ft (20 meters), unless you previously entered in your desired return to home height in the drone settings menue. Note: You can choose your own RTH altitude in the settings menu at any time.

- **1. When flight height of the drone is less than 65ft:** The drone will first rise vertically to a height of 65ft from the ground (or the RTH height you previously entered in settings), then return to the vicinity of the take-off point, and then land smoothly on the ground.
- 2. When flight height of the drone is greater than 65ft.: The drone will return to the vicinity of the take-off point at its current altitude, and then land smoothly on the ground.
- 3. When you've chosen "<u>DYNAMIC RTH</u>" in drone settings: Rather than returning to its original take-off point, it will return to the location you were in when you pressed the "Dynamic RTH" option in the settings menu.
- B. Landing Differences Between The Return To Home Procedures / Methods:
- 1. One-key return and low power return: For these 2 RTH methods, the drone returns to the vicinity of the take-off point, the user can control the drone through the joystick to avoid obstacles.
- 2. Return to home when the signal is cut off: Because the signal of the drone and the remote controller is disconnected, the remote controller cannot control the drone. The drone returns to the vicinity of the take-off point at a height of 66ft or more and then descends slowly to auto land on the ground.
- C. Users need to pay attention to the following points when using the drone's return to home (RTH) feature:
- 1. When using the GPS MODE mode, the drone should be in an open and unobstructed place outdoors, otherwise, once the drone triggers the return-to-home procedure, it will rise vertically and hit an obstacle.
- 2. The take-off point of the drone should be far away from complex places such as crowds, water, tall buildings, signal towers, trees, etc., and take off in a relatively open place to prevent it from landing directly on obstacles or water when the signal is turned off.
- 3. Attention: Before using the UAV, it is necessary to know the surrounding environment in advance, including the route environment. The flight altitude of the UAV cannot be too low during flight. The UAV will return to the takeoff point in a straight line after the homing procedure is enabled. Attention should be paid to avoid damage caused by collision with obstacles during the homing process, resulting in the inability to return. (The obstacle avoidance function may fail due to the activation of high gear in the return procedure).

#### Tip

Because the obstacle avoidance of UAV is realized by visual camera, similar to human eyes, in the dark environment at night, the visual camera can't see the obstacle, and the obstacle avoidance function will fail. Therefore, it is recommended that novices choose to fly in the day with sufficient light.

## LIMITLESS 5 App User Manual

01 — App (Software) Installation Instructions	08 — App Controls (II)–Explanation of Functions Wheel
02 — Description of Multi-Lens Obstacle Avoidance	09 — App Controls (III)—Explanation of Functions
03 — Reminders	10 — *Multi-Lens Camera View Function
04 — Camera Specs / Parameters	11 ——— Adjusting Camera Angle
05 — App Controls - Home Page	12 — Gesture Control for Photo & Video
06 — App Controls - Control Page	13 — MV Interface
07 — App Controls (I)–Explanation of Functions	14 ——— Select Music

#### 01—Phone App Installation Instructions (Software)

#### 1.Phone APP Installation

Please scan the QR code below to download the mobile app specific for your phone. You can also just search your phone's app store for the app named "LIMITLESS 5". The app has the same name as the drone: LIMITLESS 5.





Android & Google



#### 2.Recommended model configuration

iOS

Model configuration	Recommended configuration	Optimal configuration (2K support)
Product model	IPhone 6 and above	IPhone 6 and above
System version	IOS 11.0 and above	IOS 11.0 and above

#### Android

Model configuration	Recommended configuration	Optimal configuration (2K support)
CPU model	Xiaolong 630 and above Samsung Exynos 7420 and above MediaTek Helio X25 and above Kirin 950 and above	Xiaolong 835 and above Samsung Exynos 8895 and above MediaTek Helio X30 and above Kirin 970 and above
System version	Android 9.0 and above	Android 11.0 and above
Memory size	3G and above	6G and above
CPU utilization	Occupancy 25% and below	Occupancy 10% and below

Cleaning up background programs can effectively reduce CPU utilization.

#### Effective Use Environment:

The surface is made of diffuse reflection material, with rich surface texture. It can be used in environments with a reflectivity of more than 20% (such as cement pavement) and weak light intensity of more than 5 lux.

#### Be Careful:

In high gear, visual obstacle avoidance is invalid;

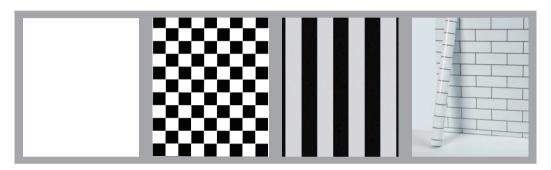
When returning, visual obstacle avoidance is invalid;

In the dark, visual obstacle avoidance is invalid; Because the obstacle avoidance of UAV is realized by visual camera, similar to human eyes, in the dark environment at night, the visual camera can't see the obstacle, and the obstacle avoidance function will fail. Therefore, it is suggested that novice Xiaobai choose to fly in the day with sufficient light.

When the object in front of the obstacle avoidance lens of the aircraft is a non-textured or repeated texture obstacle, the obstacle avoidance effect is poor, please pay attention to flight safety;

No texture barrier, that is, the surface of the object lacks the diversity of physical properties, resulting in a single image. Including glass mirror, white wall, solid color curtain, large board, etc.

The probability of failure in non-lextured environment (pure color area), repeated texture environment and transparent glass is relatively high. (As shown in the figure below)



#### 03—Reminder #1

Note: In the fixed-altitude mode (indoor mode), when the aircraft is in the following environment, the optical flow fixed-point hovering effect of the lower lens is not good, which will cause the aircraft to be difficult to fly smoothly, resulting in fuselage jitter.











#### 03—Reminder #2

To get live video feed from the drone's camera to your phone, make sure to setup the remote control correctly. See more specific instructions on Pgs. 3 and 11

- 1. Turn ON Remote Control
- 2. Turn ON Drone
- 3. Connect your phone to the remote control using the compatible USB adapter cable included.



#### **Data Transmission USB Cable Compatibility**

The remote control comes with 3 different USB Cable Adapters. Connect the adapter according to the type of phone you have. View the chart below to find out which cable is compatible with your phone. Only 1 of the 3 will be compatible with your phone.

**IMPORTANT NOTE:** The connector at the bottom of the remote is only used for charging the remote control, NOT for image transmission connection data.



#### 04—Camera Specs & Memory Cards

Types of Memory Cards Supported

The MicroSD card supports a maximum of 128GB, and the write speed level must be U3/V30 (or greater)

Save phone without card	
photograph	3840*2160P
video frequency	1920*1080P
SD card after card insertion	
photograph	3840*2160P
video frequency	3840*2160P
Mobile phone after card insertion	
photograph	3840*2160P
video frequency	1920*1080P
Download SD card in APP to mobile phone	
photograph	3840*2160P
video frequency	3840*2160P
Maximum code stream of main camera video	40Mbps

#### 05—App Controls – Home Page – LIMITLESS 5 App

Turn Sound ON / OFF



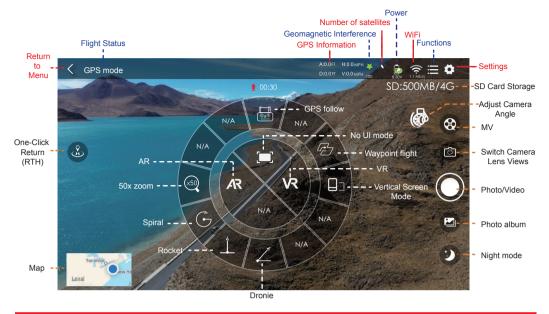
Operation guide

Personal Center

Drone Calibration

Start flight

#### 06-App Controls (I) - Control Page



#### 07—App Controls (II) - Explanation of Functions Bar



Flight Status: Indicates which 1 out of the 3 flight modes your drone is in – Disconnected / ATTI Mode / GPS Mode.

Flight Status cooresponds with "Number of Satellites". Once your drone connects to 8 or more satellites, you'll enter into GPS Mode automatically, which is the safest & most effective mode to fly in because GPS Mode records your home point and allows your drone to "RETURN TO HOME" whenever the RTH button is pressed, or the battery is critically low, or your drone loses signal.

WIFi: Displays signal strength of image transmission. When strong, you'll be able to fly the farthest while maintaining the live video feed on screen.

GPS Information:
A: Altitude
D: Distance
B: HS: Horizontal Speed
VS: Vertical Speed

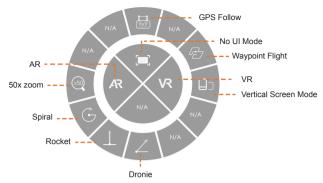
Number of Satellites: Displays how many satellites your drone is connected to, and therefore, directly cooresponds to your flight mode. You'll always be in 1 of the following 3 flight modes: • <u>Disconnected</u> • <u>ATTI Mode</u> (indoor mode) • <u>GPS Mode</u> (outdoors, connected to over 8 satellites). The <u>satellite icon</u> has a specific <u>color sequence</u> according to which flight mode you're drone is in.

- Satellite Icon FLASHING in Alternating RED & WHITE Pattern Indicates the drone is DISCONNECTED. You must plug 1 side of the data tramission cable into your phone, and the other side of the cable into the remote control.
- Satellite Icon SOLID RED Color Indicates everything is connected correctly, and the drone is just waiting to gain enough satellites to enter GPS Mode. At this time, you can't take-off unless you override the safety failsafe to enter ATTI Mode (this is only suggested for indoor flight as previously explained on pages 4 &12). Remember, if flying in ATTI Mode, you will not have Return To Home Safety functions!
- Satellite Icon SOLID WHITE Color Indicates the drone is in GPS Mode.

Power: Battery power status of the drone.

If battery shows only 1 bar flashing, that indicates the drone has critically low battery and will soon activate automatic **Return To Home** function; You will have no control over your drone when in critically low battery state because it must return home and land immediately to prevent accirdent or injury.

#### 08— App Controls (III) - Explanation of Functions Wheel



Spiral: Once started, the drone will circle the chosen subject while ascending, creating a spiral effect. In case of emergency, immediately use the remote control to interrupt the flight! Pay close attention to the obstacles above to avoid crashes and/or injury!

Rocket (Skyward Flight): Once started, the drone will rise automatically. Pay attention to the obstacles above to avoid crashes and/or injury! In case of emergency, immediately use the remote control to interrupt flight!

**Dronie (Gradual Flight):** Once started, the drone will start video recording as it flies back & away from the target. Pay special attention to the space behind your drone to avoid causing damage! In case of an emergency, immediately use the remote control joysticks to interrupt the flight! Drone will begin to return on it's own when finished recording the shot.

AR (Augmented Reality): Embed AR 3D model in real-time video stream.

**50x Zoom:** After opening, you can adjust the zoom magnification of the camera by adjusting the left slider bar. After the view is enlarged, you can still view different parts of the screen by sliding your finger over to the part of the screen you wish to view.

GPS Follow: In GPS mode, click this button and the drone will follow your phone.

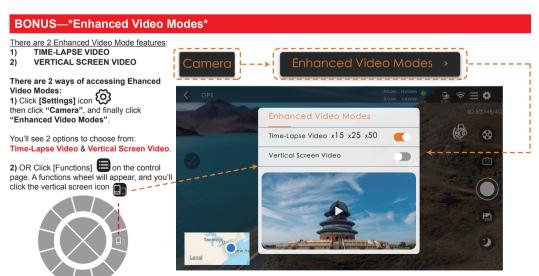
No UI mode (User Interface): Hide unnecessary UI controls

VR (Virtual Reality): Click to enter VR mode.

Waypoint Flight: In GPS mode, the drone will fly in sequential order to the points you manually select on the map. Use your finger to select your points on the screen. \*Use standard map view for more precise point plotting.

For example, it's like sending your drone on a mission—You'll select points of interest on the map and then press go. The drone will autonomously fly to each point in sequential order, allowing you to solely focus on controlling the camera rather than the flight controls!

Vertical Screen Mode: Also known as "Portrait Mode", you'll be able to photograph and record with a vertical screen for easy instagram sharing.



#### App Controls — Explanation of Functions

One-click Return To Home (RTH): In GPS mode, click RTH button to have the drone fly back to the home point on its own.



MV: Click the button to open the MV interface.



Change Camera View: Switch between the main front camera, bottom camera, & obstacle avoidance cameras (front & back).



Take Pictures/Video: Click the button to take photos. Press and hold the button to switch to VIDEO Recordina



Photo Album: View Photos & Video you've taken with the drone.



Night Mode: Turn on Night Mode when flying in low light.

#### Multi-Lens Camera View Function



Switch between the drone's many cameras to experience a number of new & different views from an incredibly unique perspective.

#### LIMITLESS 5 Has 6 Cameras:

#1 Front Main Camera: This one has 4K Ultra-HD Resolution and a 3-Axis Gimbal to ensure super smooth video recording. #2 Bottom Camera: The drone primarily uses this camera to determine its distance from the ground for altitude hold and stabalizing purposes; however it can also be utilized by the user to assist with landing or for any other means. The Resolution from the bottom cam is 720p HD. #3-#6 Obstacle Avoidance Cameras: LIMITLESS 5 Drone has 4 obstacle avoidance cameras - 2 in the front and 2 in the back. These are primarily used by the drone to detect obstacles and prevent crashes; however, the user also has access to view & record from these cameras as well! Simply choose the option titled, "4X Camera View" and it'll show a view from all 4 of these cameras simultaneously in 720p HD.

#### Phone & Drone Camera Views Combined

The app also allows you to combine live views from your phone's camera and the drone's cameras, either simultaneously or separately, and view them on the same screen! You have MANY different camera viewing options to choose from.

Click the [Switch Lens]



button to choose between views.

PH	IONE	=
Main	lens	fu

Main lens split Main lens PiP OFF Selfie lens PiP

Selfie lens split

#### DRONE

Front Camera **Bottom Camera** 4x Camera View



## Selfie lens full Adjust Front Camera Angle



#### Adjust Front Camera Angle

After the drone takes off, the camera angle adjustment slider will be displayed on the right side of the screen for you to easily adjust the main camera's angle up & down with a touch of your finger. Move the slider up and the angle of the drone's front camera will adjust upwards. Move the slider down and the camera angle will adjust downward.

#### Share Photos & Video

Click the button at the bottom right of the screen on the control page to enter the photo / video album interface. When clicking to view photos or videos, users can share photos or videos to major social platforms through the button in the upper right corner.

#### - Gesture Control for Photo & Video

Facing the camera front lens, the following gestures can trigger the automatic photographing or shooting function of the aircraft:



#### Peace Sign Gesture: Take pictures by using simple gestures

- At a distance of about 6ft in front of the front camera, raise one hand and make the "Peace" gesture.
- After the aircraft successfully recognizes the gesture, the countdown is 3 seconds at which time the camera takes a picture.



- At a distance of about 6ft in front of the front camera, raise your hand out in front of you with a flat palm, as if your giving someone a high-five or giving the "STOP" hand sign.
- After the drone successfully recognizes the gesture, the countdown is 3 seconds at which time the camera starts recording video. Perform the gesture again to END recording (the time difference between the two gestures must be greater than 3 seconds).

#### IMPORTANT NOTE:

To ensure high recognition rate of the lens, be sure

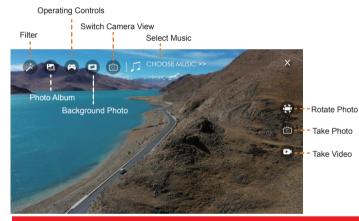
- 1. Face directly at the camera (recognizes facial features).
- 2. Fly in a bright environment.
- 3. Stand at a distance of about 6ft in front of the front

Under the following circumstances, the lens recognition rate will be reduced:

- 1. Dark environment.
- 2. WiFi signal is weak, or the signal is disturbed.

#### MV Interface (Music Video Creation)

Click the 🥨 button on the right side of the screen on the control page to enter the MV interface. In the MV interface, you can create videos with the footage you've recorded. You can also add music. But there are other video creation apps that solely made for making & editing videos, and therefore may be more suitible for video creation purposes. This apps video creation tool is just a nice bonus feature to quickly create drone videos



#### Rotate Photo

Click this button to Rotate the Screen. When enabled, you simply slide your finger right/left on the screen to rotate the image.

Double-tap the screen with your finger, to instantly enlarge the image (this function is also applicable when recording video).

#### \* Select Music

of music

Search music Return to MV interface-Music List Slide down to select more types Local Music My Collection

## **IMPORTANT REMINDERS**

- 1) Don't forget to claim all your **FREE Drone ACCESSORIES** by viewing the last page of this user manual. It takes less than a minute.
- 2) Next, thank you for joining the many thousands of LIMITLESS drone flyers out there! We're excited to get you in the sky where you belong!
- 3) Our main goal has always been to get you the absolute greatest value for your hard-earned money, and since so many of you become repeat buyers as gifts for friends and family and purchase attachments & accessories for your current drone, we want to remind you that we are NOT required to collect Tax for purchases made on our website DroneCloneXperts.com, so we never do! (Tax exemption applies to all customers who live outside our home state of NJ).
  - We mention this because we also sell many of our products on Amazon, but since Amazon is such a big company, the government requires that tax is collected for all Amazon purchases, so you'll save by purchasing directly from our company instead.
- 4) Additinally, our drones and accessories are often priced lower on our website rather than Amazon, so this often leads to substantial savings, especially on our premier products.

### Now go experience the world from above with LIMITLESS 5

#### Safety Guidelines

In order to avoid accidents and/or injury, the following safety guidelines should be followed when flying any/all drones:



Take off after getting a strong GPS signal



Avoid places with high signal interference such as signal towers and areas with high levels of geomagnetic activity.



Use both hands to control the drone throughout the entirety of flight.



Always fly in a WIDE OPEN AREA and keep your drone within sight. Do NOT fly over people, animals, or moving vehicles.



Check the drone to ensure the appearance and accessories are in good condition and that the battries are fully charged before flight.



Stay awake and do not fly under the influence of drugs and/or alcohol.



Fly at a safe altitude, avoiding canyons



Comply with city, state, and national laws and FAA regulations. Check relevant laws before flying in a new area.



Fly at a safe altitude and avoid high-lying land and other high-altitude obstacles such as tall buildings & planes.

#### Drone-Clone Xperts, Inc. Accidental Protection to "FLY WORRY-FREE GUARANTEE" Insurance Contract

#### Protect Your Investment Long After Purchase with Accidental Protection!



#### Fly WORRY-FREE Guarantee

Drones are expensive and have a lot of sensitive technology on-board, such as the camera, gimbal, pcu boards, etc. You're essentially flying a computer — and let's face it, flying a high-tech device at high speeds & high altitudes also means high risk for accidents. Far too often people purchase a drone, but then barely ever fly it because they're scared to crash it. Take advantage of this offer & ENJOY your worthy investment

- \* 100% Cost Of Parts \* 100% Cost Of Labor
- \* 100% Cost Of Replacement

Extended Product Agreement saves you time, too. There's no need to run around town looking for a repair shop or calling to find the parts you need. Simply contact us! As you can see, Extended Product Agreement is a smart way to protect your investment.

#### Offer Terms and Conditions for Accidental Protection Insurance

Instructions: See Replacement Guarantee towards bottom of this contract to see Only 2 simple instructions. 1) You must keep the sales receipt for the product and insurance purchase which is emailed to you directly after purchase, or you can simply just tell us your ORDER NUMBER so we can look the information up. Either option is fine. 2) Simply return the damaged drone to us or any remaining pieces and we'll send you your replacement, it

To Obtain Service: Email us at Admin@DroneCloneXperts.com (Make sure it's spelled correctly as our company name is often misspelled). Unauthorized repairs may void this contract, but we often do authorize customers to make repairs themselves with replacement parts purchased directly from

www.DroneCloneXperts.com, so simply contact us before making any repairs or replacements yourself and wait for a response before proceeding.

This Accidental Protection Insurance is provided at an additional cost. All customers have the option to add this Accidental Protection Insurance within 30days from date of purchase. Please be sure to contact us at

Admin@DroneCloneXperts.com within 30 days from date of purchase, no exceptions. You must also have and provide your order number for the drone purchase. This insurance is labeled on our website as, "Add Accidental Protection to Fly Without Worry". This product protection service can be added or removed by you in your virtual cart before you complete the purchase. If you have trouble finding it, please contact us at Admin@DroneCloneXperts.com and we'll assist you.

For specific information on what the Protection Insurance includes, please see below

REPLACEMENT GUARANTEE: In the case of any accidental, unintended, or negligent damage to the structure or technological vitals of your quadcopter, Drone-Clone Xperts, Inc. warrants this product to be replaced in its entirety, including any flying accessories such as the controller or propellers, one time within 1-year or 2-years from the date the Accidental Protection Insurance was Purchased (time frame of warranty dependent upon # of yrs chosen and paid for at time of purchase).

The product must be shipped back to Drone-Clone Xperts, Inc. (condition of the unit is not a factor).

Drone-Clone Xperts, Inc. will warrant the entire product to be replaced with the same model drone. If the model no longer is being produced at the time of claim, then the newest model of equal of greater value

Return and Outbound Shipping will be paid by the Customer. Lost or Stolen units are NOT covered via this protection plan. Damaged item(s) must be returned to the following address to be inspected before new item can be shipped to customer:

Drone-Clone Xperts, Inc. 99 Columbia Rd. Morristown NJ 07960

will be provided.

## Get these 3 extra accessories for FREE!

Drone Landing Pad

Spare Set of Propeller Blades



LED Drone Strobe Light



It's quick & easy to get these items and it won't take more than 1min of your time. Just follow these steps:

**Step 1**. Write a 5-star review for the Drone. Review must be at least 2 sentences in length.

Step 2. Email us a screenshot or photo of the review.

- Remember to include your Order # and Shipping Address in your email so we know where to ship your accessories.
- Send email to REVIEW@DroneCloneXperts.com

## **OPTIONAL BONUS:**

You'll also get these additional **2 BONUS ITEMS** IF YOU INCLUDE **PHOTOS** OR **VIDEO** TO YOUR REVIEW.







SCAN NOW



Hold your phone camera up to this QR code and you'll be brought directly to the drone review page