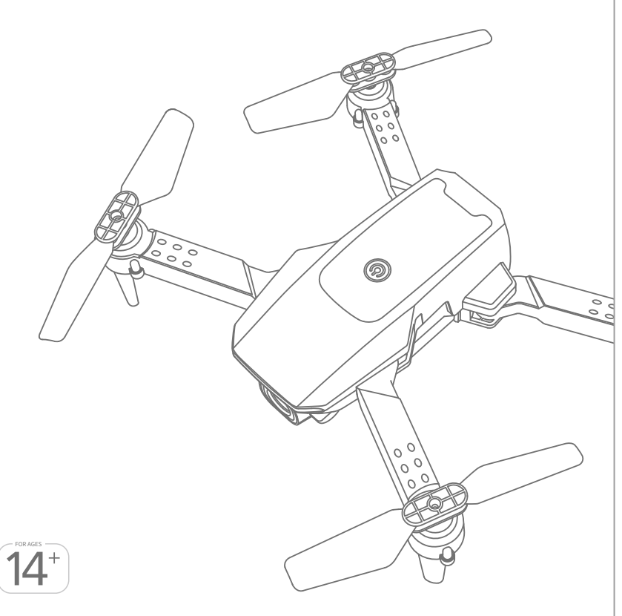
DYNALOG



14+

DR-DF100B

FOLDABLE DRONE

User Manual

Please read this manual carefully before flying and keep it for future reference.

V1.02

Thank you for choosing our product.
If you have any questions, concerns, or need any help,
please contact us at
support@idynalog.com
or call us via hotline
(443) 998-8789 (UTC 14:00-22:00, Monday to Friday)

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DISCLAIMER AND SAFETY GUIDELINES

1. DO NOT look directly into the drone light.
2. DO NOT treat the product as household waste.
3. DO NOT fly above or near obstacles, crowds, open water, public road, high voltage power lines or trees.
4. DO NOT use the drone in severe weather conditions. These include wind, snow, rain, smog, hail, lightning, tornadoes or hurricanes.
5. Stay away from the rotating propellers and motors to avoid some tiny objects (e.g. hair) to get into them.
6. This product is not a toy and not recommended for users under age 14.

14+

7. Please maintain line-of-sight of your drone at all times after it is powered up. Do not rely on the camera image to control your drone.

8. This drone does not come with a GPS module. Please fly the drone within the control range and always keep an eye on the flying.

GPS

9. This product is not intended for professional aerial drone photography.
10. Be sure to observe all local regulations, obtain appropriate authorizations and understand risks. Please note it is solely your responsibility to comply with all flight regulations.

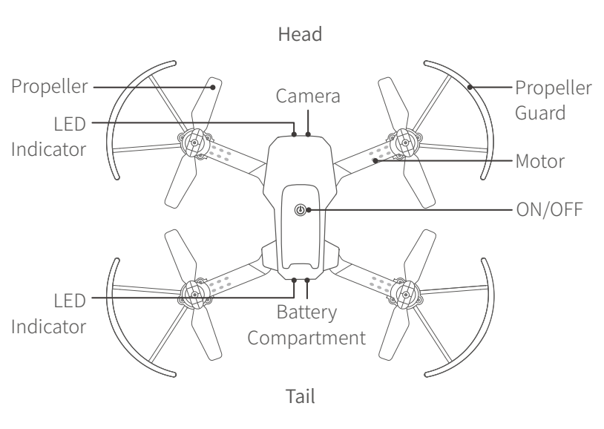
DYNALOG accepts no liability for damage, injury or any legal responsibility incurred directly or indirectly from the use of this product. The user shall observe safe and lawful practices including, but not limited to, those set forth in these Safety Guidelines. DYNALOG reserves the right to update this user manual.

MAINTENANCE AND CARE

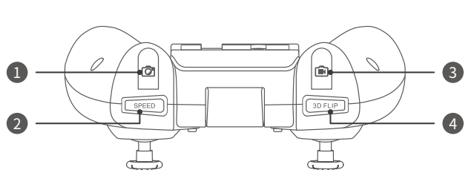
1. Thoroughly check the drone after a crash or violent impact.
2. Do not charge battery if it is hot. Let it cool down first.
3. Remove the batteries from both the drone and the remote if they will not be used for a long time.
4. Unplug the charger once the battery is fully charged.
5. Store the drone and remote in a cool, dry place away from direct sunlight.
6. Avoid direct contact of the camera with water or other liquids. Wipe dry with a soft absorbent cloth if it gets wet.
7. Do not charge the battery next to inflammable materials, such as carpet, wood floors or countertops etc., or on surfaces that are electrically conductive. Do not leave the battery unattended while charging.
8. To extend the battery's lifespan, recharge it at least once every three months if not using it for long periods of time.
9. Please use the original battery provided. Use an incorrect type of battery may lead to fire hazards.
10. Do not dispose of the battery in fire or a hot oven, cut or mechanically crush the battery, as this may cause explosions.
11. Do not leave the battery in an extremely high-temperature environment that can result in an explosion or the leakage of flammable liquid or gas.
12. Do not expose the battery to the extremely low air pressure, as this may result in an explosion or the leakage of flammable liquid or gas.

PRODUCT OVERVIEW

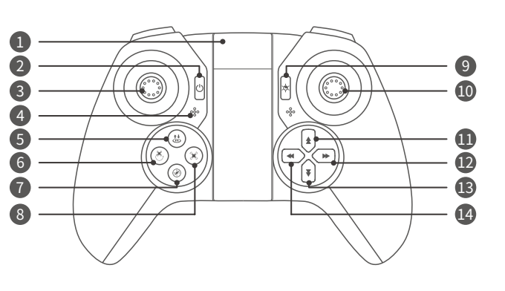
Drone



Remote



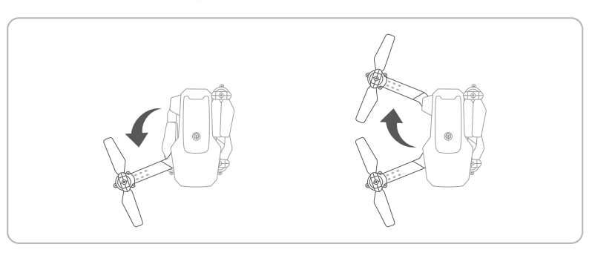
1. Photo
2. Speed Switch(short press) Emergency Stop(long press)
3. Video
4. 360° Flip



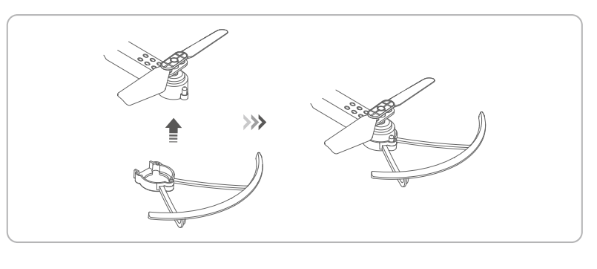
1. Phone Clamp
2. ON/OFF
3. Left Control Stick
4. LED Indicator
5. One Key Take-off/Landing
6. Circle Fly
7. Headless Mode(short press) One Key Return(long press)
8. High-speed Rotation
9. Drone's LED Indicators ON/OFF
10. Right Control Stick
11. Forward Trim
12. Rightward Trim
13. Backward Trim
14. Leftward Trim

FLIGHT PREPARATION

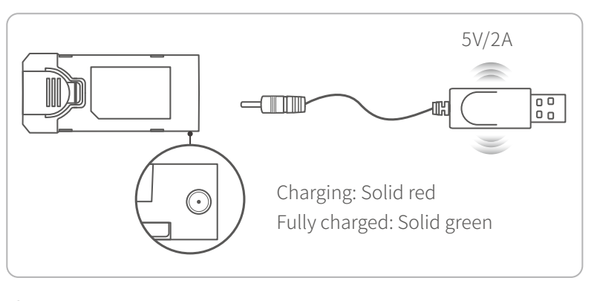
1. Unfold the front arm, then the rear arm.



2. Gently install the propeller guard to the drone's arm.



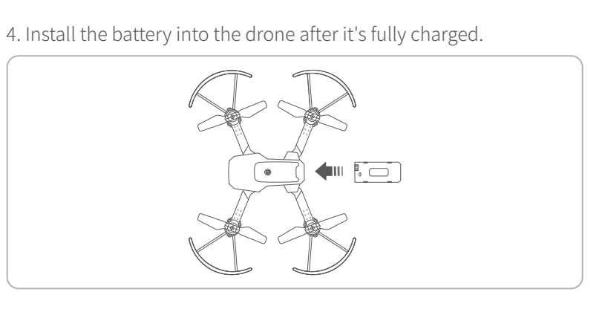
3. Charge the drone battery.



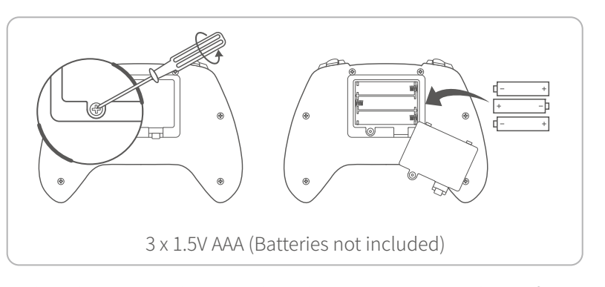
Notes:

* When the drone's battery is low, there are continuous beeps from the remote and the drone's LEDs keep flashing.
* Please use the original battery and USB cable provided.
* Keep the battery away from any sharp objects that could puncture into the battery to avoid risks of explosion and fire.
* It's not recommended to charge the battery from the USB port of PC.
* Flight time may be reduced when flying in low-temperature environments.
*Do not mix old and new batteries.
*Do not mix alkaline, standard(carbon-zinc), or rechargeable batteries.

4. Install the battery into the drone after it's fully charged.

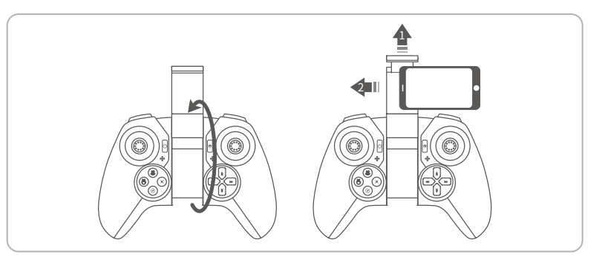


5. Install the remote batteries.

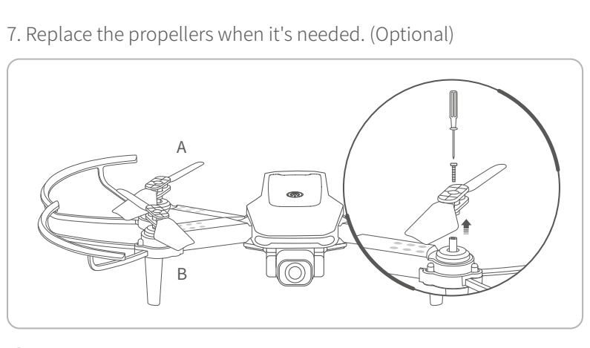


* When the remote's battery is low, there are continuous beeps from the remote and its LED indicator keeps flashing.

6. Unfold the phone clamp to mount your mobile device.



7. Replace the propellers when it's needed. (Optional)



① Loosen the screws, then remove the propellers.
② Fit the spare propellers into the drone according to the mark (A/B) on them, then tighten the screws.

Note:

Please do not overtighten the screws. Gently rotate the propellers by hand after installation to check if they are rotatable; If not, please loosen the screw and check again.

FLIGHT OPERATION GUIDE

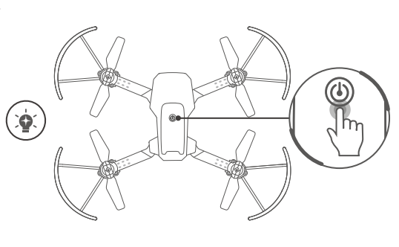
IMPORTANT

* Make sure you power on the drone first, then the remote in each flight.
* Please calibrate the drone after a crash or impact.
* For all flight functions and modes, the operator and tail of the drone must be aligned.
* We recommend flying in the open air and within the control range for beginners.

Remote Operation Guide

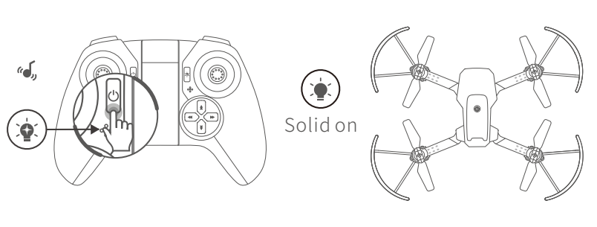
1. Pair the Remote with the Drone

Step 1:
Press and hold the **ON/OFF** button till the drone's LEDs start flashing to turn on the drone. Then place the drone on a flat surface with the head forward.



Step 2:
Press and hold the **ON/OFF** button to turn on the remote; you will hear a beep from the remote .

The drone will be paired with the remote after 2 seconds.

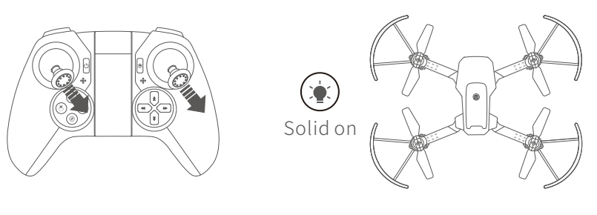


Notes:

* The drone/remote will be off automatically if you do not operate it about 6mins after powering on the drone/remote.
* Press and hold the **ON/OFF** button again to turn off the drone/remote.

2. Flight Calibration

Move both control sticks to lower right at 45°; you'll hear a beep from the remote. Calibration is completed when the LEDs of the drone turn to solid on from flashing.



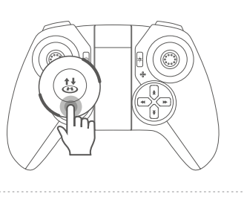
Note:

Please calibrate the drone after a crash or impact.

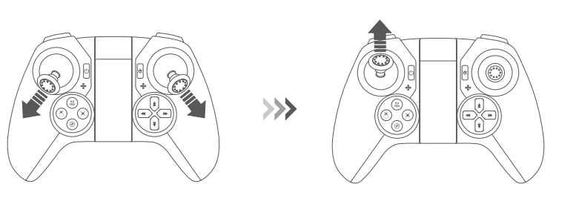
3. Flight Instructions

Take-off

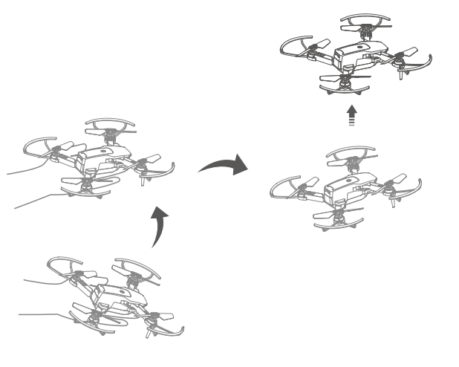
Option 1:
Press the ● button to take off.



Option 2:
Simultaneously push the **Left Control Stick** to lower left at 45° and the **Right Control Stick** to lower right at 45° until the four propellers start rotating, then slowly push the **Left Control Stick** forward to take off.

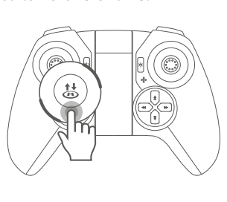


Option 3:
Place the drone on your palm with the head of the drone in the front, then gently throw it into the air.

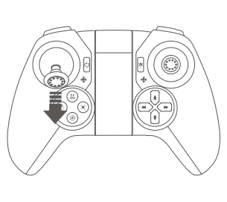


Landing

Option 1:
Press the ● button to land the drone.

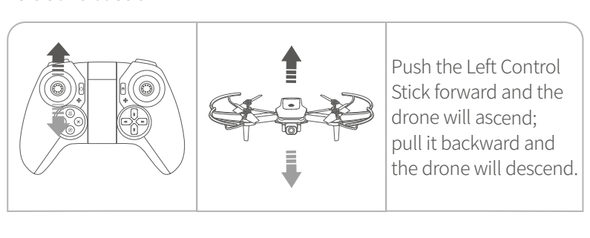


Option 2:
Slowly pull the **Left Control Stick** backward to land the drone until the propellers stop rotating.

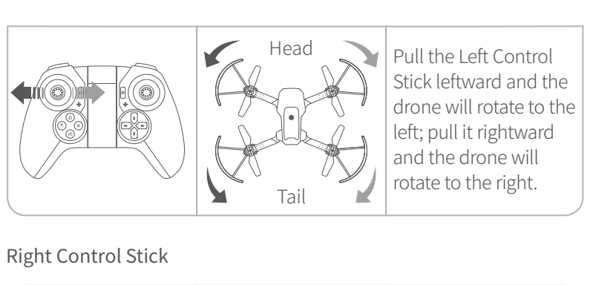


Flight Directions

Left Control Stick

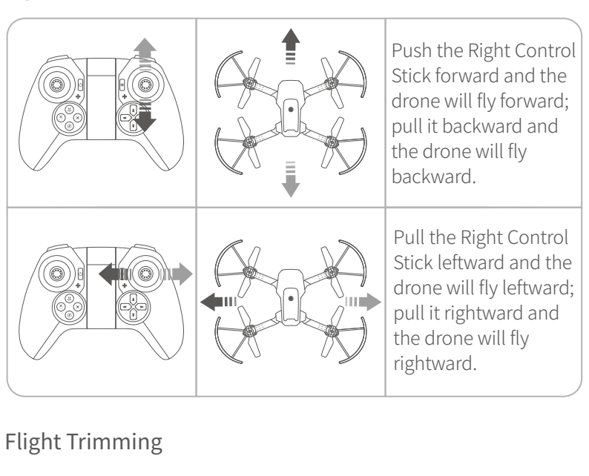


Push the Left Control Stick forward and the drone will ascend; pull it backward and the drone will descend.



Pull the Left Control Stick leftward and the drone will rotate to the left; pull it rightward and the drone will rotate to the right.

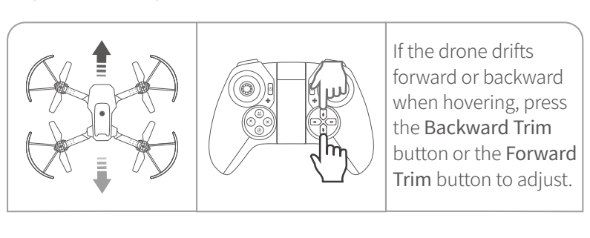
Right Control Stick



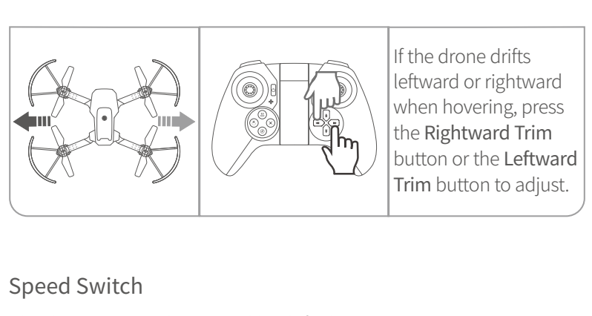
Push the Right Control Stick forward and the drone will fly forward; pull it backward and the drone will fly backward.

Pull the Right Control Stick leftward and the drone will fly leftward; pull it rightward and the drone will fly rightward.

Flight Trimming



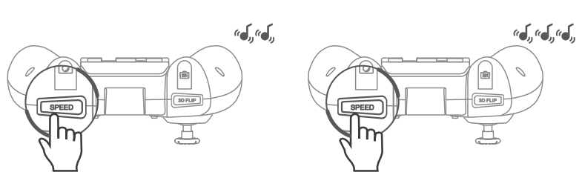
If the drone drifts forward or backward when hovering, press the **Backward Trim** button or the **Forward Trim** button to adjust.



If the drone drifts leftward or rightward when hovering, press the **Rightward Trim** button or the **Leftward Trim** button to adjust.

Speed Switch

The drone is set to low speed by default.
Press the SPEED button once for **Medium** speed and there are two beeps from the remote. Press it again for **High** speed and there are three beeps from the remote.

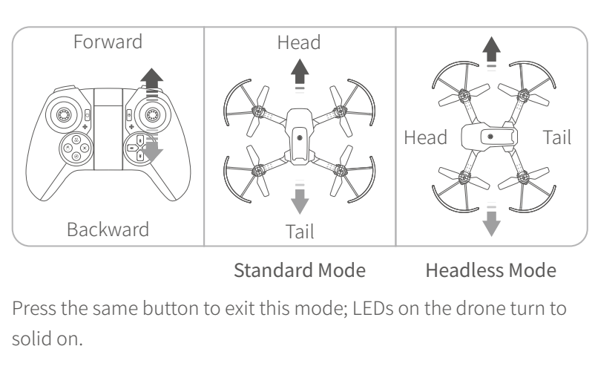


Press it the third time to get back to **Low** speed and there is one beep from the remote.

Headless Mode

Short press the ● button to activate **Headless Mode**; LEDs on the drone start flashing.

In this mode, the drone will fly following the direction of the **Right Control Stick** regardless of the position of your drone's head or tail.

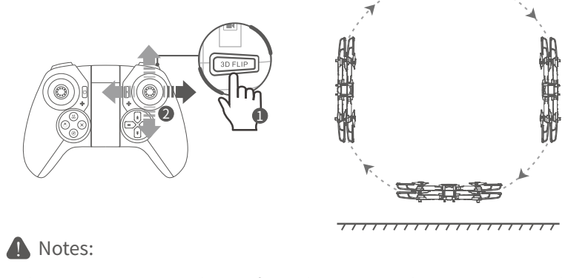


Standard Mode Headless Mode

Press the same button to exit this mode; LEDs on the drone turn to solid on.

360° Flip

Fly the drone to a height over 2m, then press the 3D FLIP button to activate **360° Flip** function. Next, move the **Right Control Stick** to flip the drone accordingly.

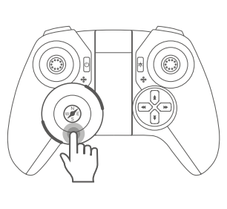


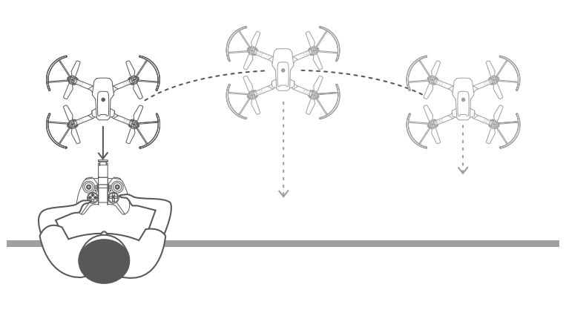
Notes:

* There are continuous beeps from the remote when you activate this function. If you do not move the **Right Control Stick** about 5s after you press the 3D FLIP button, the function will be cancelled and the remote will stop beeping.
* This function can't be activated when the battery of the drone is low.

One Key Return

Press and hold the ● button, then the drone will return along the parallel direction where the tail of the drone pointed when the drone took off the last time. The LEDs on the drone keep flashing when the drone is returning.
Press and hold the ● button again or move the **Right Control Stick** forward to cancel this mode, or the drone will keep flying back.

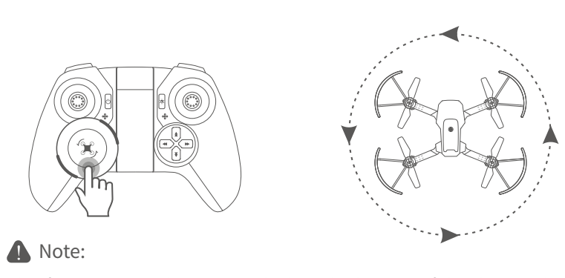




High-Speed Rotation

Press the ● button to make the drone rotate at high speed.

Press the button again or move the **Right Control Stick** to any direction to exit this mode.



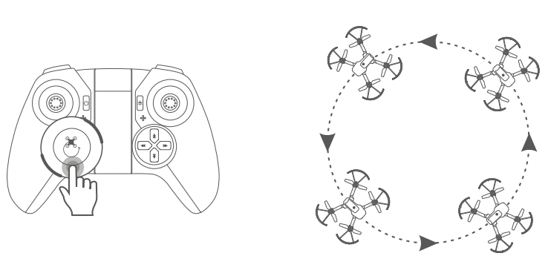
Note:

This function can't be activated when the battery of the drone is low.

Circle Fly

In the case of barrier-free within 5m radius around the drone, press the ● button to fly the drone in a circle.

Press the button again or move the **Right Control Stick** to any direction to exit this mode.



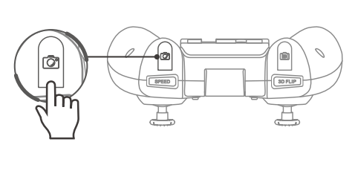
Note:

This function can't be activated when the battery of the drone is low.

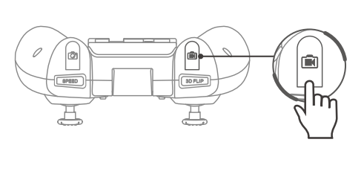
Photo/Video

Please connect the drone to your mobile device first (refer to **Page 19**), then go to the App **Dynalog Casper** to check your photos and videos.

Press the ● button to take a photo.



Press the ● button to start recording a video; press it again to stop recording and save the video.

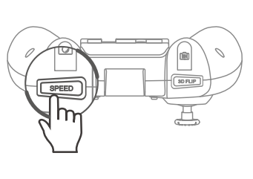


Altitude Hold/Hover

This is one of the default settings of the drone. When you release the **Left Control Stick** after an ascent/descent action, the drone will hover at the current flight height. For a stable flight, press the trim buttons to adjust accordingly.

Emergency Stop

Press and hold the SPEED button, then the drone will stop in the air and fall.



Note:

It's NOT recommended to use this function during normal flight for landing, which may result in serious damage for your drone.

App Operation Guide

1. App Downloading and Installation

Download and install **Dynalog Casper** into your mobile device from **App Store™/Google Play™** or by scanning the QR code below.

App's Name: Dynalog Casper
App's QR Codes:

For Android 5.0 or later
For iOS 8.0 or later

Name of the Drone's WiFi:
DR-DF100B-B****** or DR-DF100B-W******

Note:

Google Play™ is a trademark of Google Inc., and App Store™ is a trademark of Apple Inc.

2. Link the App with the Drone

Step 1:
Press and hold the **ON/OFF** button till the drone's LEDs start flashing to turn on the drone. Then place the drone on a flat surface with the head forward.

Step 2:
Go to the Wifi settings of your mobile device and connect to the drone's Wifi(please refer to the"**Name of Drone's WiFi**" mentioned above).

Tip:
The drone's Wifi has no Internet access. To prevent your mobile device from automatically switching to cellular data, it's recommended that you turn off cellular data when connecting to the drone's Wifi.

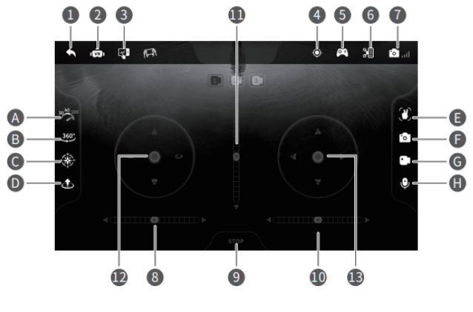
Step 3:
Open **Dynalog Casper** App and tap **Start** to enter the App. Tap ● to turn on the App, and the LEDs on the drone turn to solid on at a successful connection.

Step 4:
Tap ● to calibrate the drone.

Notes:

* If the drone's Wifi is not listed or the App doesn't show the preview image, please restart the drone and search the Wifi of the drone again.
* Make sure the drone's Wifi is only connected to one device.
* Please allow the App **Dynalog Casper** to access the necessary permissions of your mobile device.
* Tap ● to check the recorded videos and captures photos.

3. Function Overview of the App

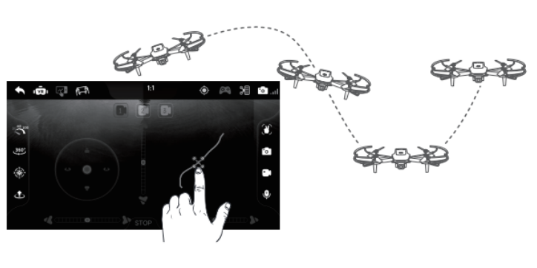


1. Back
2. VR Mode
3. Trajectory Flight
4. Calibrate
5. Virtual Remote ON/OFF
6. Drone Battery Status
7. Wifi Signal
8. Trim clockwise/anticlockwise
9. Emergency Stop
10. Trim leftward/rightward
11. Trim forward/backward
12. Turn Left/Turn Right/ Ascend/Descend
13. Forward/Backward/ Leftward/Rightward

- A Speed Switch
- B 360° Flip
- C Headless Mode
- D One Key Take-off/Landing
- E Gestures for Photo/Video
- F Photo
- G Video
- H Voice Control

VR Mode:
VR device (not included) is required to activate **VR Mode**.

Trajectory Flight:
Tap ● to activate this mode. Draw a path in the frame on the right side of the screen and the drone will fly following the path. Tap 1:1 to modify flight distance and time accordingly. Tap ● again to exit this mode.



Calibrate:
Tap ● to calibrate the drone directly.
If the LEDs of the drone flash quickly after a sudden impact, please tap ● to calibrate the drone.

Battery Status:
Check the battery status of the drone.

Wifi Signal:
Check the Wifi status of the drone to avoid losing control. When it drops to 2 or 1 bar, please do not fly the drone far away.

Gestures for Photo/Video:
Tap ● to activate this function. Stand in front of the camera at a distance of 1.5~3 meters, face the camera and make a ✌ gesture with your right hand to take a photo, a ✋ gesture to start or stop recording a video.

Photo:
Tap ● once to take a photo. Please allow **Dynalog Casper** to access the photos on your phone before taking a photo.

Video:
Tap ● once to start recording, tap again to end and save the video. The interval time between recording and saving a video should be over 3 seconds.

Voice Control:
Press and hold ● to speak the following voice commands: Take off, landing, forward, backward, left, right. Please allow **Dynalog Casper** to access the microphone on your phone before speaking the voice command.

STOP Stop:
Tap **STOP** and a pop-up window will show to confirm if you would like to stop the drone.

Note:

It's NOT recommended to use this function during normal flight for landing, which may result in serious damage for your drone.

Camera Views:
1 : View from the drone's camera
2 : View from your mobile device's rear camera
3 :View from your mobile device's front camera

Note:

To fly the drone with the remote and see the image through your mobile device in the App operation mode, tap ● to **OFF**, then restart the remote and wait for the automatic pairing.

TROUBLESHOOTING GUIDE

Q1. How to avoid losing my drone?

* Make sure the distance between the drone and the remote/App is effective.
* We recommend flying the drone on windless days. If you insist on flying the drone in the wind, we recommend flying at HIGH speed.
* It's essential to calibrate the drone before flying.

Q2. Drone LEDs do not light up.

* Ensure that you've turned on the drone.
* Replace or charge the drone battery.
* Make sure that you did not press the button ● on the remote to trun off the drone's LED indicators.

Q3. Drone LEDs keep flashing, but the drone never responds to any command from the remote.

* Restart the drone and remote.
* Replace or charge the drone battery.
* Make sure the batteries of the remote have enough power.

Q4. The flight is not stable.

* Return the drone and restart to do a flight calibration as instructed.

* Make the flight trimming accordingly.
* Fly the drone when the weather is good.

Q5. The response from the drone to the control is not sensitive.

* Make sure the distance between the drone and the remote is effective.
* The remote signal may be interfered, please land the drone and go to another place to fly it.

Q6. Connection between the drone and the App is frequently lost.

* Make sure the distance between the drone and the mobile device is effective.
* Make sure your mobile device is not connected to another network.

Q7. The App doesn't respond to voice commands.

* Ensure the drone App has access to the microphone function of your mobile device.

Q8. Some of the functions don't work in the App.

* Make sure the switch for the App ● is ON.

Q9. The drone will fly beyond the control range.

* Activate the **Headless Mode**, then move the **Right Control Stick** to fly the drone back.

SPECIFICATIONS

USB Cable	
Input	5V ⎓ 2A
Output	5V ⎓ 0.5A
Rated Power	2.5W

FCC Caution:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
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.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

For Remote:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
For R/C QUADCOPTER:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm