ANTIGRAVITY

REMOTE CONTROLLER



Remote Controller

User Manual

V1.0

Convention

Legend

Cautions and Warnings

Tips

Glossary

Read Before Your First Flight

Read the following documents before the first flight for your safety:

1. Safety Guidelines
2. Quick Start Guide
3. User Manual

It is strongly recommended to read the above-mentioned documents and watch the video tutorial before using our product for the first time. Follow the instructions provided in the quick start guide to prepare for your first flight. For more information, download and read the user manual from the official website.

Video Tutorials

Scan the QR code to watch video tutorials for the safe and proper use of the product.

https://www.antigravity.tech/guide/rc

Download Antigravity App

Download the Antigravity App and follow the prompted instruction to activate your drone and other devices before first use. Scan the QR code above to download the Antigravity App.

Note that the flight altitude of the drone is restricted to 30 m (98.4 ft) and a range of 50 m (164 ft), if the drone has not been linked to the Antigravity App upon the first use.

Disclaimers

This document is subject to change without prior notice as products and firmware are updated. The figures referenced in the manual are for illustrative purposes only and may not reflect the actual product. Users should refer to the physical product.

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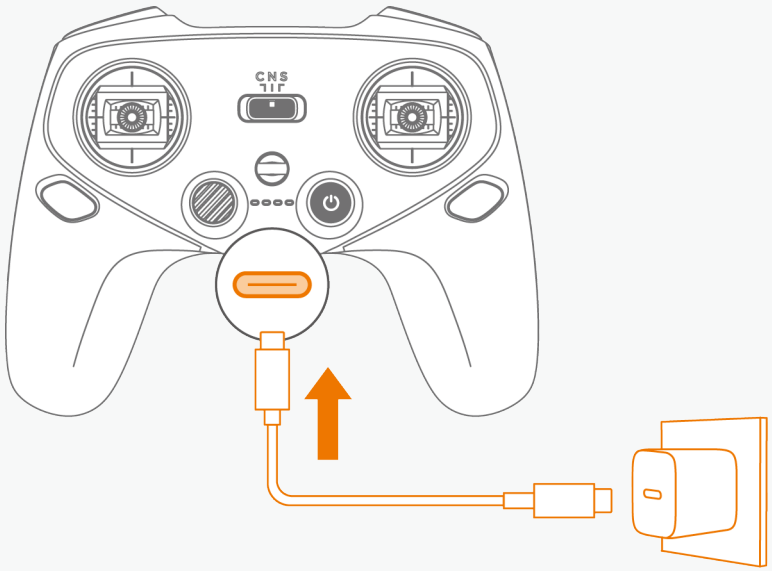
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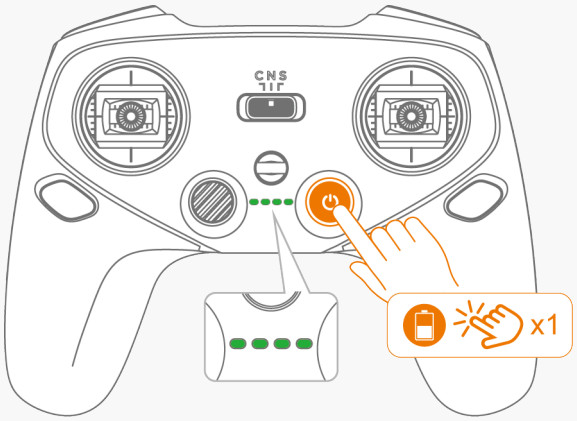
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Charging

1. Connect the USB-C port on the bottom of the Antigravity Remote Controller to a power source to activate the device and charge the battery.



2. Press once on the power button to check the battery level. Connect the USB-C port on the bottom of the controller to charge. Charging stops and the LED turns off automatically when the battery is fully charged.

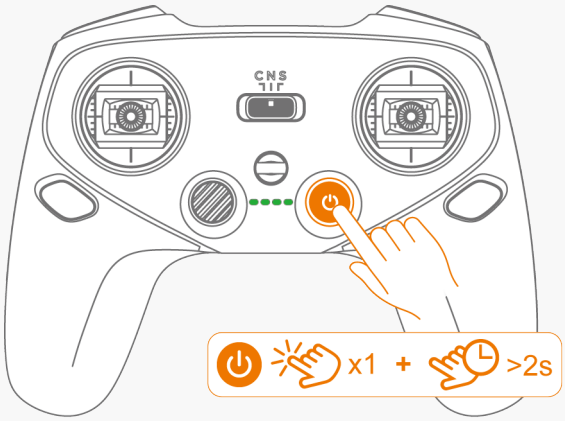


- Ensure at least three green indicators are solid lit before each use.
- Power on and charge the remote controller on a 3 month cycle to maintain battery health.

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Powering On / Off

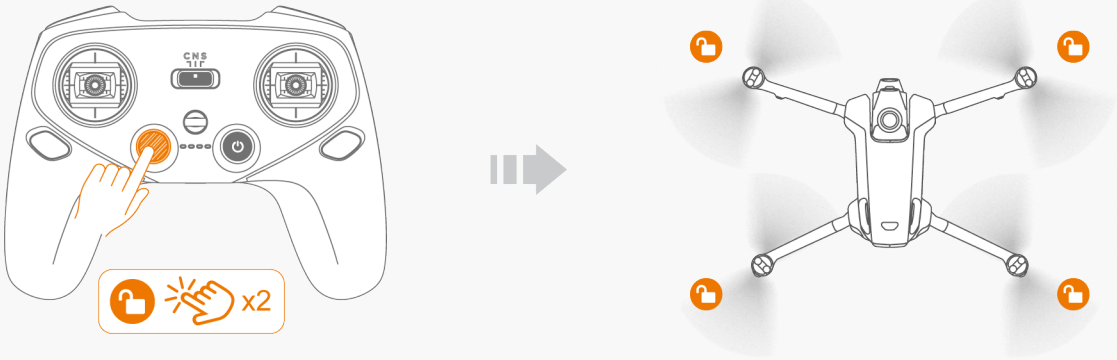
Press once, then press and hold the power button for at least 2 seconds to power on or off the remote controller.



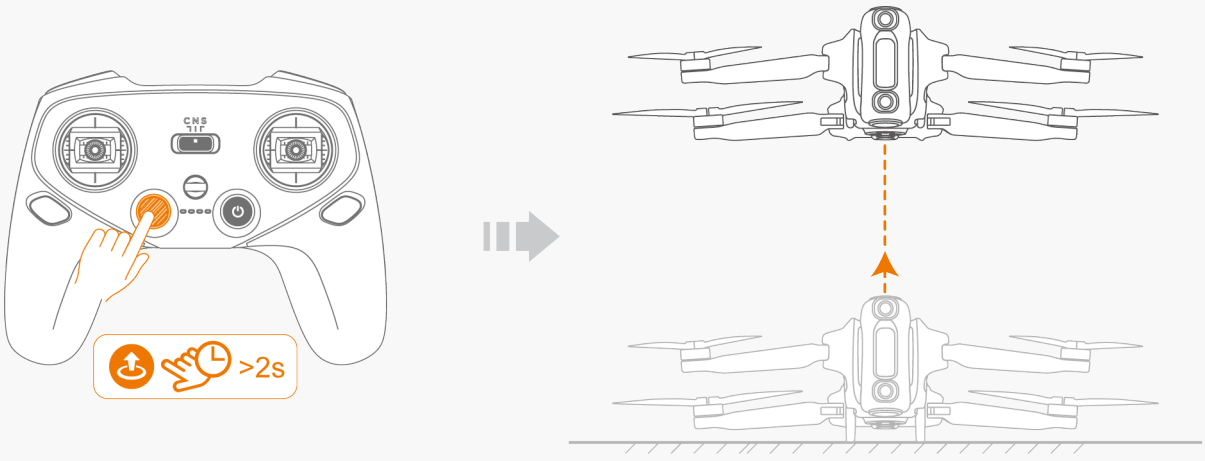
Using the Remote Controller

Starting Motor via Button

1. Press the Emergency Brake button twice to start the motors.



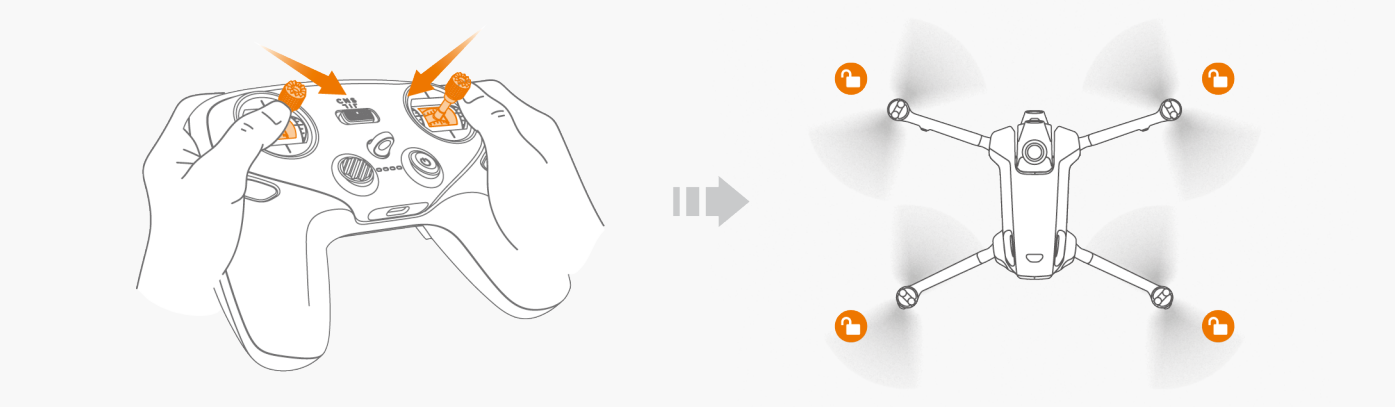
2. After the motors start, press and hold to take off.



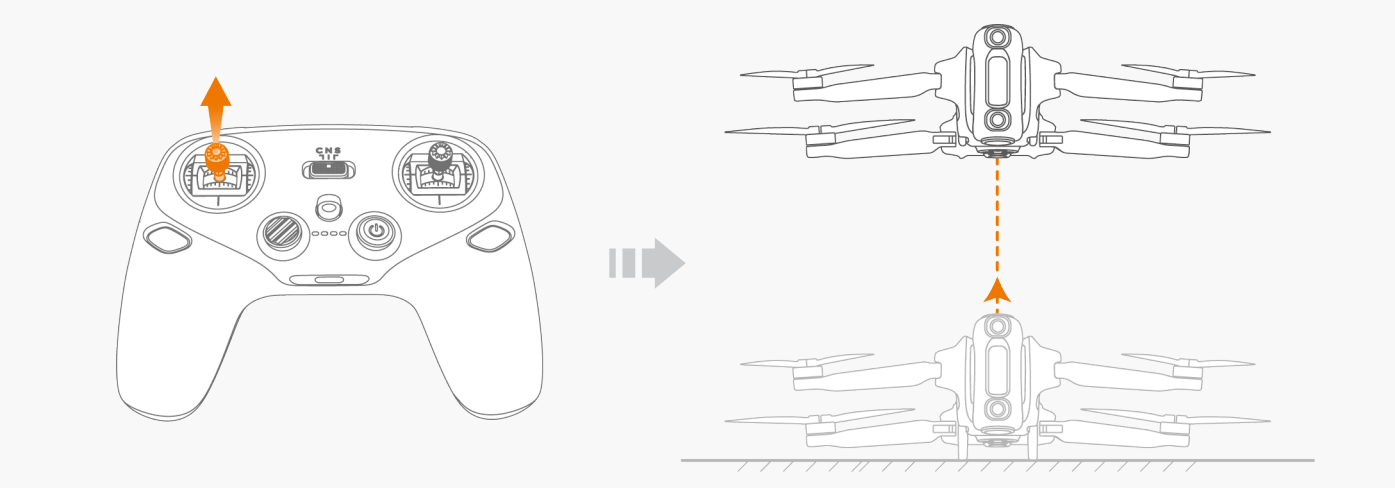
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Starting Motors with Joysticks

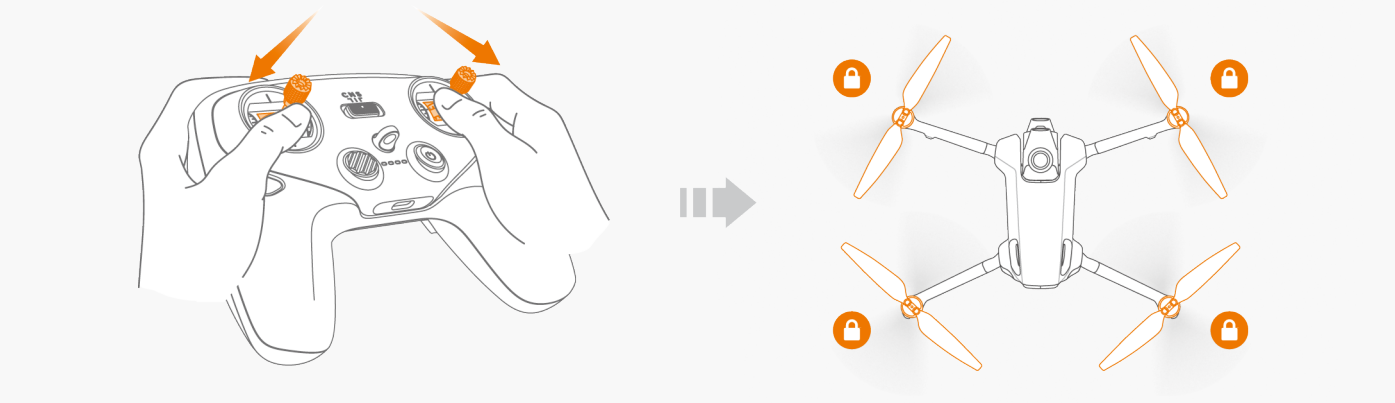
1. Push both sticks inward to start the motors. .



2. Release the sticks immediately once the motors start. Gently push the throttle stick upward to take off.



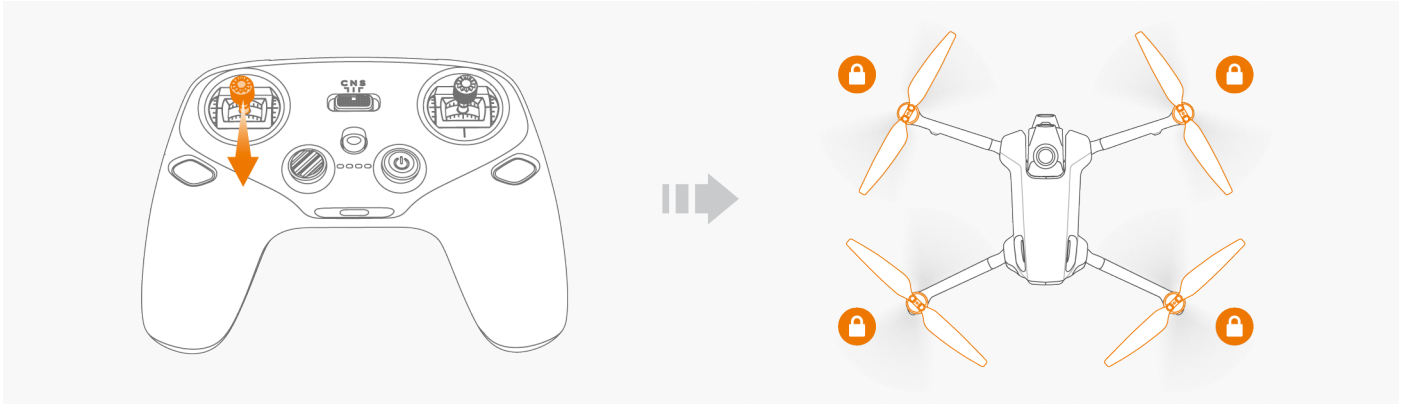
3. To cancel takeoff, push both sticks outward as shown below. The motors will stop.



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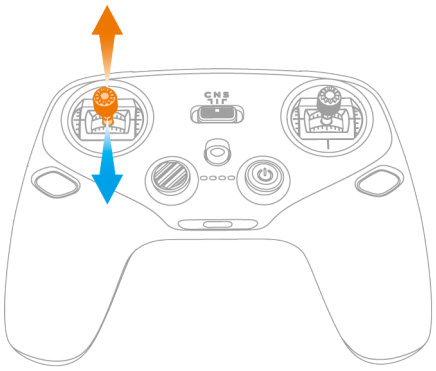
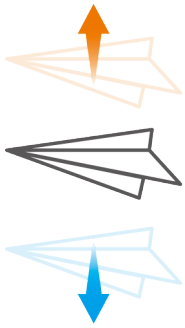
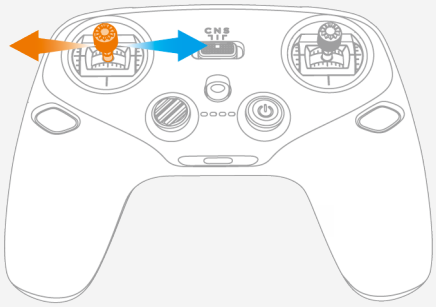
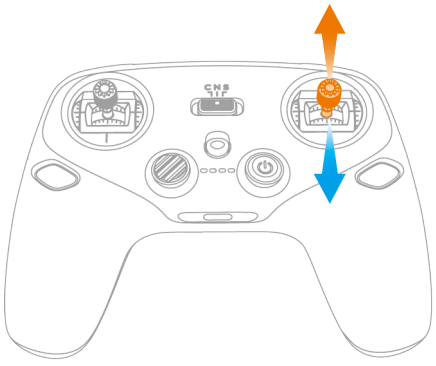
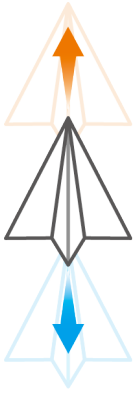
Stopping the Motors

Push the throttle stick to the lowest position and hold until the motors stop.

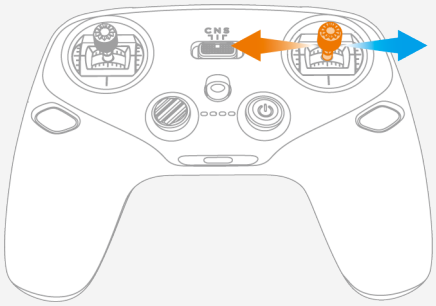


Controlling the Drone

The remote controller is set to Mode 2 by default. The control scheme in this mode is shown in the table below. Users can also switch to Mode 1 or other control modes through the settings in the goggles.

Remote Controller Stick Movement	Drone Response	Description
		Move the left stick up or down to make the drone ascend or descend.
		Move the left stick left or right to make the drone turn (yaw) left or right.
		Push the right stick forward or pull it backward to make the drone fly forward or backward.

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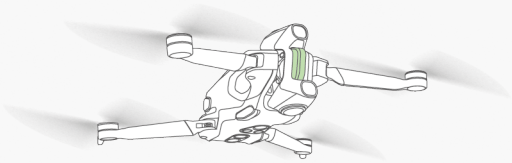


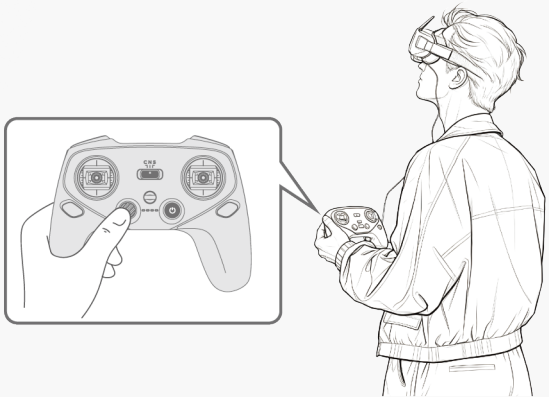


Move the right stick left or right to make the drone roll left or right.

Cruise Control

In Cruise Control mode, the drone can maintain a constant forward speed without the user continuously pushing the control stick. For example, once the cruise speed is set to 5 m/s, the drone will keep flying forward at that speed until the user exits Cruise Control mode. In this mode, the user can focus more on framing the shot and monitoring the flight path.

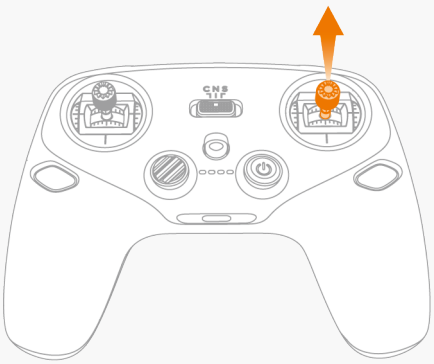




How to Enable Cruise Control

After the drone takes off, the user can enable Cruise Control via the “Cruise” option in the Vision Goggles interface.

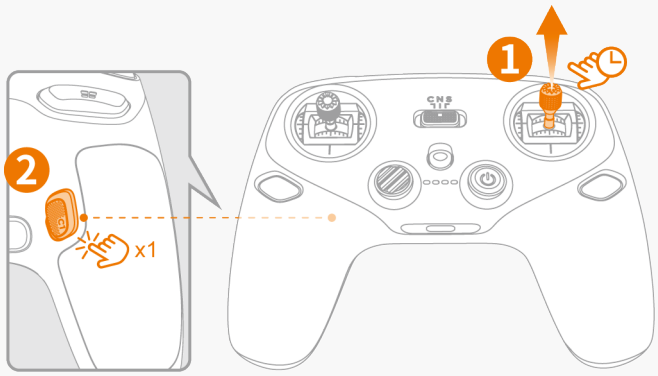
1. Push the right stick forward to make the drone accelerate slowly and fly forward.





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2. When the drone reaches the desired horizontal flight speed, keep the stick input steady and press the C1 button once at the same time.



Caution: If the current horizontal speed is too low, the drone will not be able to enter cruise state. The user needs to push the stick moderately to increase the drone's horizontal flight speed.

3. The drone will then fly forward at a constant speed matching its current horizontal speed. Even if the user releases the right stick, the drone will continue flying forward at that speed.

Caution: After entering cruise mode, pushing the right stick down will not change the drone's flight direction. To exit cruising, please refer to the ***"How to Exit Cruise Control"*** section.

How to Exit Cruise Control

The user can exit Cruise Control mode using either of the following two methods.

1. Press the C1 button once, and the drone will immediately exit the current cruise state. The user can then push the right stick again to readjust the drone's horizontal speed. However, the drone is still in cruise mode, in which the C1 and C2 buttons have different definitions from their default state.

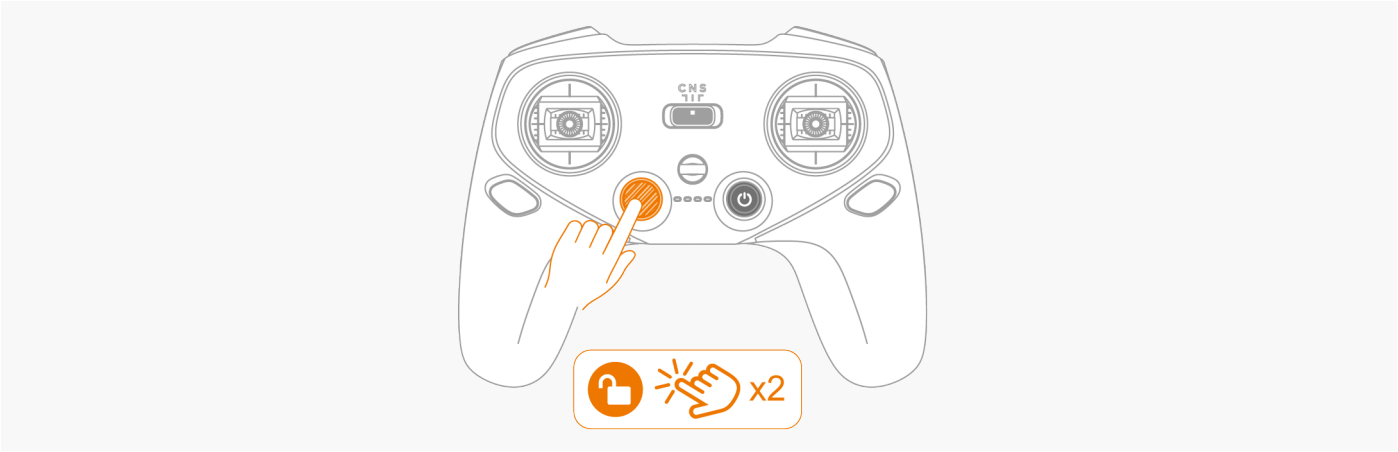


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2. To fully exit Cruise Control mode, the user can press and hold the C1 button. Once the progress bar on the screen fills up, the drone will exit Cruise Control mode.



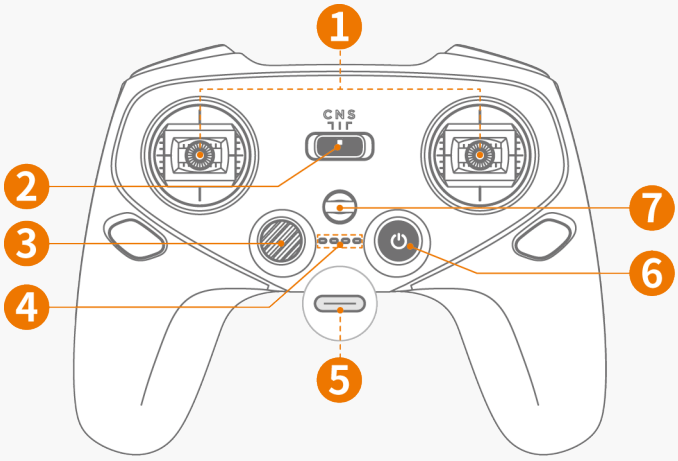
3. In an emergency, the user can also press the brake button to interrupt the current flight state. The drone will immediately brake to a stop within the braking distance.



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Product Overview

Front View

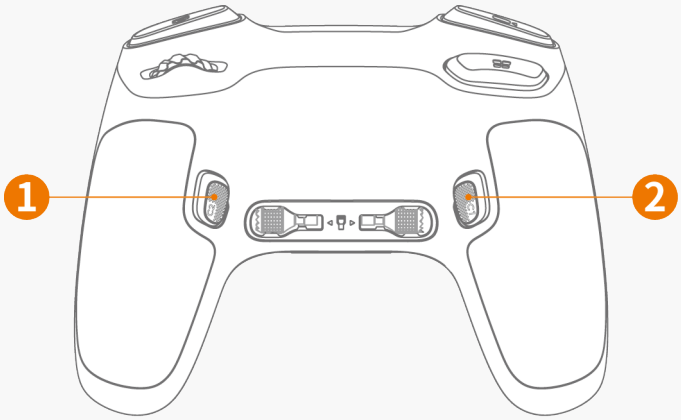


No.	Component	Function
1	Joystick	The remote controller's control mode is set to Mode 2 by default. This means the left stick controls throttle and yaw, while the right stick controls pitch and roll.
2	Flight Mode Button	Switches between three flight modes: · Normal (N) · Cine (C) · Sport (S)
3	Emergency Stop / Return-to-Home Button	When drone is in midair: · Press once to trigger an emergency stop and hover. Press and hold to engage Smart Return-to-Home. When drone is on the ground: · Double press to start the motor, press and hold to take off the drone.
4	Battery Level Indicator	Displays the controller's battery level.
5	Type-C Port	Used for charging the remote control and performing firmware updates.
6	Power Button	Press briefly, then press and hold to power on the controller. When powered on, press and hold for 4 seconds or more to enter linking mode.
7	Lanyard Hole	For attaching a lanyard.

Caution: Do not apply stickers on the front panel of the remote controller as it may affect the performance of the sensors.

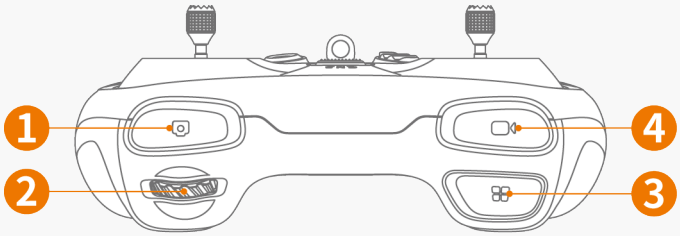
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Rear View



No.	Component	Function
1	Custom C2 Button	Double-press C2 to toggle between FPV mode and Free Motion mode.
2	Custom C1 Button	Double-press C1 to start or stop screen recording.

Top View



No.	Component	Function
1	Shutter / Confirm Button	By default, press and hold to switch to camera mode. Once in camera mode, press once to take a photo. While entering the Flight Goggles menu, press once to confirm the current selection.
2	Scroll Wheel	· Before takeoff, slide left or right to adjust the panoramic camera's field of view. Press inward to re-center the view. · While in the Fixed Mode, rotate let or right to adjust the pitch angle of the virtual gimbal. · While in the vision goggles menu, scroll the wheel to change the scale of the map.
3	Menu Button	When connected to the flight goggles, press once to enter or exit the current menu. Press and hold to bring up the quick menu.

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4	Record Button	Long press to switch to video recording mode. Press once to start recording a video clip, and press again to stop recording.

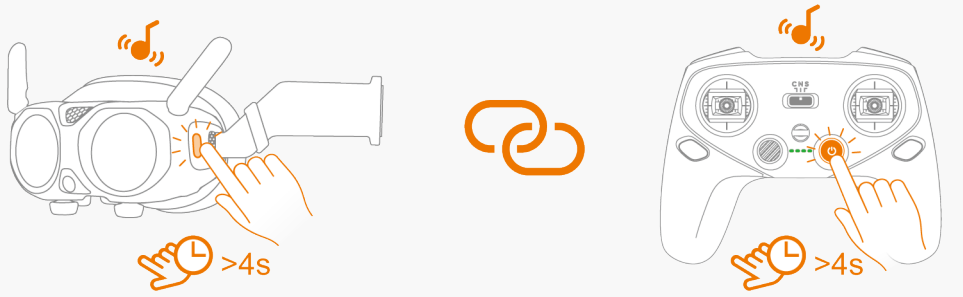
Linking to Goggles

The remote controller is paired with the goggles upon delivery. However, if you need to pair the remote controller with a brand new goggles, follow the instructions below:

1. Power on the drone, the goggles, and the remote controller. Press and hold the power button and Home button for more than 4 seconds to initiate linking.



2. Press and hold the Home button on the goggles for more than 4 seconds to start the linking process. The goggles will beep to indicate that linking has started. The remote controller will start beeping, and the LED will start blinking to indicate that linking has started.



3. The beeping from all devices will stop once the linking process is completed successfully.

- At any given time, the drone must be connected to only one remote controller. Never connect multiple remote controllers to the same drone.
- Keep the remote controller close to the goggles throughout the linking process.

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Fixed View vs. Free View

When using the remote controller to control the drone, you can toggle the viewing perspective between fixed view and free view.

If the drone is currently linked with a Motion Grip Controller, then the "Fixed View" option is not available. To resume the use of "Fixed View", link the drone with the Remote Controller and restart the Vision Goggles.

Toggling Fixed View and Free View

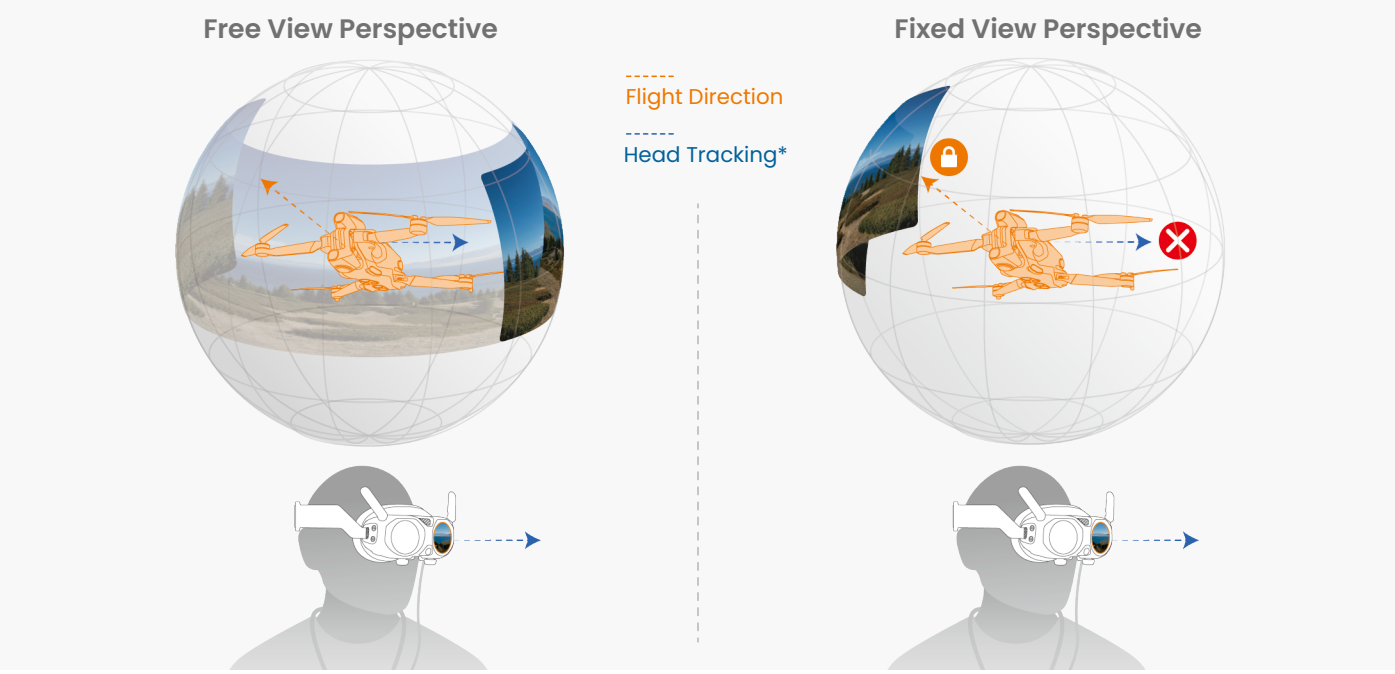
You can switch the viewing perspective from the Vision Goggles menu. Note that the Fixed View option is only available after the Vision Goggles are successfully linked with the Remote Controller — it does not prompt when you are controlling the drone with the Motion Remote.



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Fixed View Perspective

In the new Fixed View mode, head tracking is turned off. In this mode, the perspective of the real-time video feed will not follow the movement of your head, but will always align with the current flight direction of the drone.



Gimbal Adjustment Indicator

In Fixed View mode, a scale bar appears to the right of the center display to indicate the current pitch angle of the virtual gimbal. As you toggle the dial on the remote controller, the marker on the scale bar will update in real-time to reflect the adjustment.



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Free View Perspective

Unlike the Fixed View Perspective, Free View enables the drone's real-time feed to follow your head movements, both up-down and left-right.

> **Caution:** The Fixed View Perspective is the default viewing mode and the user selection will not be preserved. Even if the user switches to Free View mode during usage, the drone will revert to the default Fixed View Perspective after the drone restarts.

Obstacle Avoidance Icons

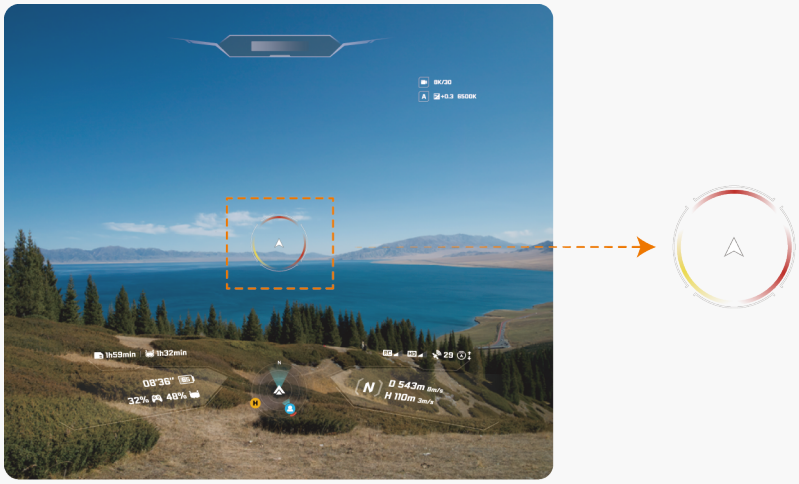
When flying in Free View mode, the operator's field of view does not always align perfectly with the drone's flight direction. When the aircraft's nose moves outside the current field of view, the flight goggles will display:



When using an Antigravity Remote Controller to control the A1 drone, the obstacle avoidance icons on the flight goggles will be presented as follows:



The direction of the arrow represents the drone's current flight direction. When the obstacle avoidance ring displays yellow or red, it indicates that the drone has detected obstacles in the current direction, and the user should operate the drone with caution.



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Specification

Model: TRC001	
Weight	Approx. 256g
Dimensions	152.1 mm × 117 mm × 56.56 mm (L × W × H)
Charging Temperature Range	5°C-45°C (41°F to 113°F)
Operating Frequency	2400 - 2483.5 MHz* *Supported frequency bands vary by country or region. Please refer to your local laws and regulations
Transmitter Power	≤12 dBm (EIRP)
Operating Frequency	1146 MHz to 1189 MHz 1559 MHz to 1610 MHz
GNSS Channel	GPS L1 L5 , Galileo E1 E5a ,BDS B1I B2a
Channel Bandwidth	2 MHz
Transmission Rate	2 Mbps
Transmitting Range	< 10 meters
Maximum Battery Life	Approx. 5 hours
Input Power Rating	5V⎓2A
Battery Capacity	3.6Vdc, 2300mAh, 8.28Wh

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