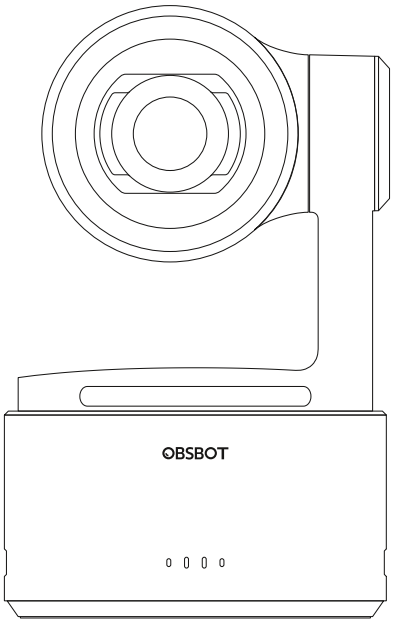
OBSBOT




v1.0

# User Manual

English

# Reading Guide

## Note

⚠ Important consideration

## Recommendation

We recommend that users watch instructional videos and read the user manual first to understand the usage process.
https://www.obsbot.com/download

## Tutorial Video

Users could access and watch tutorial videos through the following link to use the product correctly.
https://www.obsbot.com/explore/obsbot-tail-2

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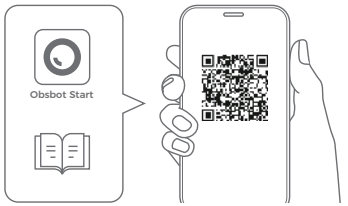
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# Download the App/Software




https://www.obsbot.com/support/obsbot-tail-2

Download on the App Store

GET IT ON Google Play

1. Scan the QR code or search for the 'Obsbot Start' App in the App store to download the Obsbot Start App.
2. Power on your Tail 2.
3. Turn on Bluetooth and Wi-Fi on your phone.
4. Open the App and tap on your camera (the default name is "Tail 2_XXXXXX"), then follow the App instructions to connect your Tail 2.

⚠ System Requirements
iOS 11.0 or later
Android 10.0 or later

The OBSBOT Tail 2 also offers advanced users on Windows and Mac a control software called OBSBOT Center.
It can be downloaded from https://www.obsbot.com/download.

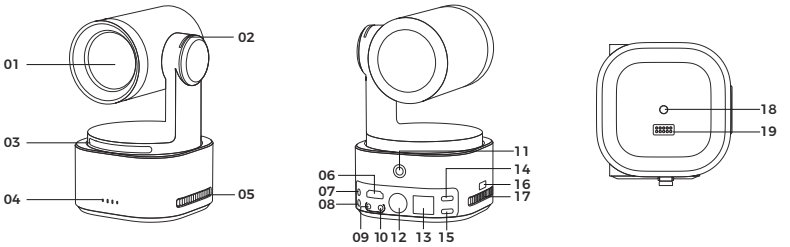


# OBSBOT Tail 2 Overview

## About Tail 2

Equipped with an advanced 12-piece optics system and a 1/1.5" CMOS sensor, the OBSBOT Tail 2 supports 12x hybrid zoom, delivering exceptional image quality. Its innovative PTZR lens design enables seamless switching between landscape and portrait modes. Combined with the upgraded AI Tracking 2.0 technology, it achieves long-range precise tracking and supports various AI customization settings, unlocking endless creative possibilities. Additionally, comprehensive interfaces and multi-protocol compatibility provide robust support for professional production, meeting diverse shooting requirements.

## Parts Info




01. Camera Lens
02. Tally Light
03. Status Indicator
04. Battery Indicator
05. Cooling Inlet
06. HDMI Port
07. MIC IN Port
08. LINE IN Port
09. RS232 IN Port
10. RS232 OUT Port
11. Power Button
12. 3G-SDI Port
13. LAN/PoE+ Port
14. USB-C Port
15. Power Input Port
16. Micro SD Card Slot
17. Cooling Outlet
18. UNC 1/4-20 Interface
19. Extension Pin Interface

# Setting Up Tail 2

## Placement Instructions

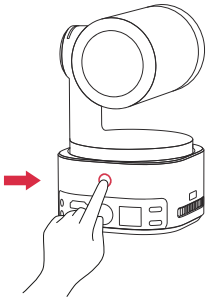
OBSBOT Tail 2 is equipped with a standard UNC 1/4-20 nut connector on the base for mounting the camera to a tripod or direct placement on a flat surface.

## Gimbal

OBSBOT Tail 2 is equipped with a 3-axis brushless motor gimbal. The controllable rotation range for the pan is ±160˚, for the tilt is -65˚ to 32˚, and for the roll is ±120˚.

## Power On/Off

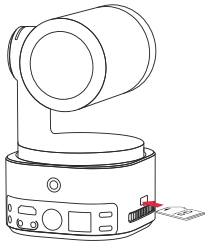
Press and hold the power button until the indicator light flashes blue in a cycle to power on/off.



⚠ If the product is in working condition for a long time, the bottom of the product will heat up, which is normal situation.

## Inserting the Micro SD Card

Insert the Micro SD card into the Micro SD card slot as shown in the diagram below. To remove the Micro SD card, gently push it inward to slightly eject it.
After shooting, you can export the media files to your computer or quickly export them to your phone via the Obsbot Start App.



⚠ The Micro SD card supports a maximum capacity of 1TB. It is recommended to use a Micro SD card with a UHS Speed Grade 3 rating for optimal performance (sold separately).



## Gesture Control



**Turn On/Off Human Tracking**
To enter human tracking mode, perform the gesture shown in the figure. The current status indicator light will flash twice and then turn to a steady blue state, indicating that you have successfully entered human tracking mode.
To exit human tracking mode, perform the same gesture again. The blue status indicator light will flash twice and then turn green or purple, indicating that you have successfully exited human tracking mode.



**Zoom to 2x (default)/Cancel**
Perform the gesture control shown in the figure. The status indicator light will flash twice to indicate that the zoom in/out has been performed.

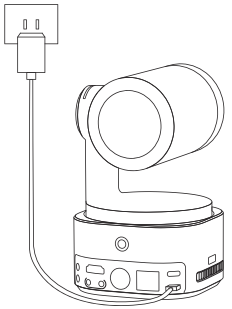


**Start/Stop Recording**
Perform the gesture control shown in the figure. The status indicator light will flash twice to indicate that the video recording has started or stopped.

⚠ Please be careful not to cover your face with your hands and keep your fingers open for gesture control.
⚠ Please go to the link below to find the tutorial video for gesture control.
https://www.obsbot.com/explore/obsbot-tail-2

## Charging Instructions

When using the camera for the first time, please charge it using the included USB-C power cable to ensure proper functionality.



⚠ It is recommended to use an FCC/CE certified adapter that supports the USB PD3.0 protocol and has a power output of at least 25W.

## Battery Indicator

● Steady Blue ○ Flashing Blue ● OFF

| Type | Capacity | LED 1 | LED 2 | LED 3 | LED 4 |
|---|---|---|---|---|---|
| Battery Detection Upon Pressing the Power Button | 0%-10% | ○ | ● | ● | ● |
| | 11%-25% | ● | ● | ● | ● |
| | 26%-30% | ● | ○ | ● | ● |
| | 31%-45% | ● | ● | ● | ● |
| | 46%-60% | ● | ● | ○ | ● |
| | 61%-75% | ● | ● | ● | ● |
| | 76%-95% | ● | ● | ● | ○ |
| | 96%-100% | ● | ● | ● | ● |
| Discharging | 0%-10% | ○ | ● | ● | ● |
| | 11%-25% | ● | ● | ● | ● |
| | 26%-45% | ● | ● | ● | ● |
| | 46%-75% | ● | ● | ● | ● |
| | 76%-100% | ● | ● | ● | ● |
| Charging | 0%-25% | ○ | ● | ● | ● |
| | 26%-45% | ● | ○ | ● | ● |
| | 46%-75% | ● | ● | ○ | ● |
| | 76%-95% | ● | ● | ● | ○ |
| | 96%-100% | ● | ● | ● | ● |

⚠ Charging will stop when the battery temperature exceeds 45˚C.
For example, when connected to an external power supply, if the battery temperature exceeds 45˚C, the camera will stop charging and will be powered directly from the external power supply.

## Tally Light

| NDI Video Stream Status | Indicator Statuses |
|---|---|
| Program | Solid red light |
| Preview | Solid green light |
| Not in Use | Light Off |

## Status Indicator

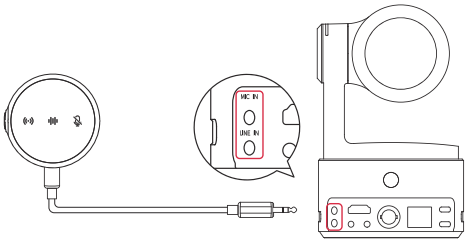
| Equipment Status | Indicator Statuses |
|---|---|
| Powering on and initializing | Blue lights flash circularly |
| Executing gesture control features | The lights flash in their current color twice together means your gesture is recognized successfully |
| Streaming or recording - Tracking target unselected | Breathe in green light |
| Streaming or recording - Tracking target selected | Breathe in blue light |
| Streaming failed and retrying | Flash in yellow light |
| STA mode - Tracking target unselected | Solid green light |
| AP mode - Tracking target unselected | Solid purple light |
| STA/AP mode - Tracking target selected | Solid blue light |
| STA/AP mode - Tracking target losing | Solid yellow light |
| Streaming or recording - Tracking target losing | Breathe in yellow light |
| Taking a picture | The lights flash once in their current color |
| Camera/AI/Gimbal Error | Solid red light |
| Camera errors, including SD card full or update failures, and so on | Breathe in red light |
| Upgrading the firmware | The lights flash in yellow and blue alternatively |

## Buzzer

| Explanation | Tweet Mode |
|---|---|
| Powering on or off | DDD |
| Taking a picture | D |
| Starting to Stream & Record | D |
| Battery level is low and camera is about to power off | DDD |
| Upgrading the firmware | D···D···D··· |
| Camera errors, including SD card full or update failures, and so on | DDDDDD |

## Connect Microphone

The Tail 2 features two 3.5mm audio interfaces: MIC IN and LINE IN, for connecting audio devices. It supports microphones with a TRS interface type operating in unbalanced stereo mode.

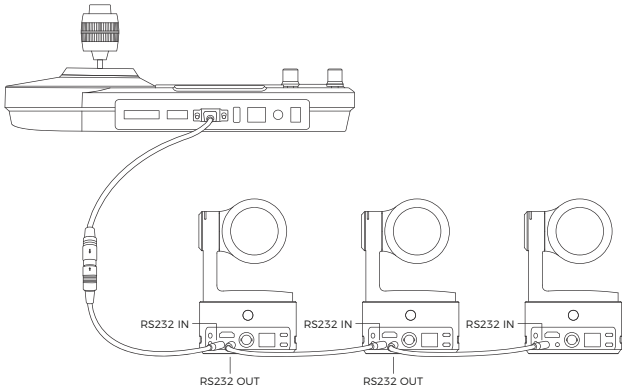



⚠ Please connect a microphone without power to the MIC IN interface, and a microphone with power to the LINE IN interface.

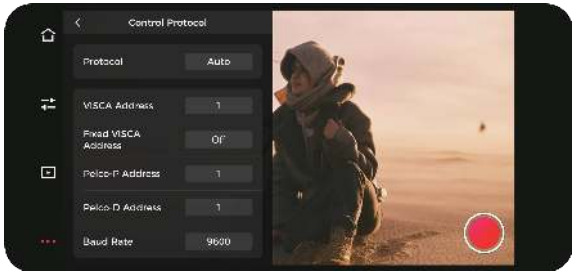
## Control Protocol

**1. RS232 Serial Port Protocol**

The RS232 interface of the Tail 2 supports three serial protocols: VISCA/Pelco-D/Pelco-P. It supports controlling the camera gimbal, switching preset positions, and adjusting focus through the protocol.




Connect the control device to the RS232 IN interface of the camera, and select the corresponding control protocol to control the camera.
When connecting multiple cameras, connect the RS232 OUT interface of Camera 1 to the RS232 IN interface of Camera 2, connect the RS232 OUT interface of Camera 2 to the RS232 IN interface of Camera 3, and so on, linking the cameras in sequence to enable control of multiple cameras.
The protocol address, baud rate, and other settings can be configured in the "Obsbot Start App -> More Settings -> Control Protocol".




The feature list for the VISCA protocol can be viewed and downloaded at https://www.obsbot.com/explore/obsbot-tail-air/visca-over-ip.
The feature list for the Pelco-D/Pelco-P protocols can be viewed and downloaded at https://www.obsbot.com/explore/obsbot-tail-2/pelco-d-pelco-p.

**2. VISCA over IP**

VISCA over IP control is supported for the camera, and it is necessary to ensure that the Tail 2 and the control device are on the same network.
The feature list for VISCA over IP can be viewed and downloaded at https://www.obsbot.com/explore/obsbot-tail-air/visca-over-ip.

# Obsbot Start App

## Software Overview

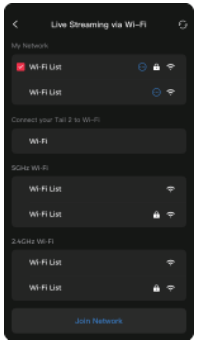
The Tail 2, when paired with the Obsbot Start App, enables camera control and image parameter adjustments on mobile devices. It also supports quick live streaming setup and one-click landscape/portrait switching, offering a seamless and convenient live streaming experience.

## Connect Obsbot Start App

1. Press and hold the power button on Tail 2 to turn it on.
2. Enable Bluetooth and Wi-Fi on your mobile device.
3. Launch the Obsbot Start App and select the corresponding Tail 2.
4. Tail 2 supports three connection methods: Wi-Fi connection, cellular data connection, and wired network connection.

(1) Wi-Fi Connection




① Tap "Wi-Fi";
② Tap "Live Streaming via Wi-Fi", select the Wi-Fi network you want to use and enter the password to connect. (The Wi-Fi list includes two frequency bands: 5GHz and 2.4GHz. It is recommended to use 5GHz.);
③ Once connected, it will automatically enter the shooting view.

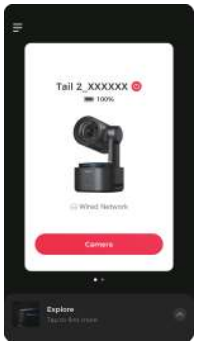
(2) Cellular Data Connection
If you do not have a local Wi-Fi network, you can connect to the Tail 2's hotspot and stream over your mobile device's network.






① Tap "Cellular Data";
② Tap "Live Streaming via Cellular", and connect to the Tail 2 hotspot;
③ Once connected, it will automatically enter the shooting view.
⚠ The live streaming quality may not be as reliable as Wi-Fi connection.

(3) Wired Network Connection
Connect the Tail 2 to the router or switch using an Ethernet cable. Once your mobile device is on the same local network, you can establish the connection.




## Shooting View




The shooting view supports multiple convenient operations:
●Hold and drag on the screen to control the gimbal.
●Double-click to select human/animal/object for tracking, and double-click again to deselect tracking.
●Draw a box around the target object to precisely select it for tracking, and double-click to cancel tracking.

**1. 【Home Button】** Tap to return to the home screen.

**2. 【Camera Settings】** Tap to enter the camera settings. For details, please refer to the "Camera Settings" section.

**3. 【Album】** Tap to enter the album to manage captured videos and photos. Supports playback, deletion, download and upload of media files.

**4. 【More Settings】** Tap to bring up the settings panel. It allows you to configure the camera's general functions. For details, please refer to the "More Settings" section.

**5. 【Landscape/Portrait Mode Switch】** Tap to switch between landscape and portrait mode.

**6. 【AI Settings】** Tap to bring up the settings list. For details, please refer to the "AI Settings" section.

**7. 【Gimbal and View】** Tap to bring up the gimbal control and zoom panel, enabling manual control of the gimbal and zoom.

**8. 【Reset/Initial Position】** Tap to reset Tail 2 to its initial position. Long press to set the initial position.

**9. 【Preset Mode】** Tap to apply the corresponding camera parameters from the preset mode.

**10. 【Preset Positions】** Tap to add a preset position, supporting up to three preset positions: P1, P2, and P3. Long press the button to update/delete after adding.

**11. 【Status Display】** Real-time display of the camera's current HDR, Night View Mode, and Audio Status.

**12. 【Tracking Guide】** ① Double-click to select human/animal/object for tracking; ② Box-select the object for tracking (suitable for precisely selecting the target object).

**13. 【Zoom Quick Access】** Displays the current zoom level in real time. Long press to bring up the zoom dial, then slide the dial or click the up and down arrows to adjust the zoom level.

**14. 【Recording/Live Streaming】** For the first use, tap to enter the recording/live configuration. After configuration, you can tap to quickly start recording or live streaming. See "Recording & Live Streaming Configuration" for details.

## Camera Settings




**1. 【Exposure Mode】** Tap to switch exposure modes between A (Automatic mode) and M (Manual mode).

**2. 【Exposure Parameters】** Adjustable ISO, Shutter Speed and EV.

**3. 【Focus Mode】** AF-S (Single Autofocus) / AF-C (Continuous Autofocus) / MF (Manual Focus).

**4. 【Anti-Flicker】** Off (default)/50Hz/60Hz. Set the anti-flicker frequency to reduce flickering caused by fluorescent lights or TV screens when shooting indoors.



**5. 【Mirror】** Tap to horizontally flip the image.

**6. 【Grids】** Tap to enable grid lines to assist in framing.

**7. 【HDR】** Disable (default)/Enable.

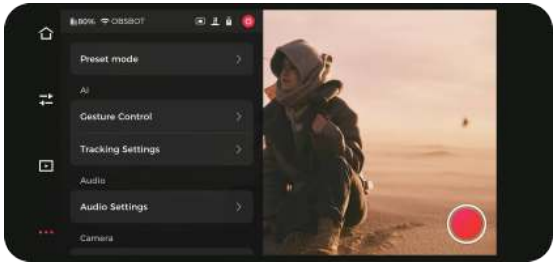
**8. 【AE Lock】** Disable (default)/Enable.

**9. 【AF】** Global Focus/Face Focus (default)/Foreground Focus.

**10. 【Style】** Switch image styles, Standard(default)/Outdoor/Pastel/Custom (adjustable sharpness, contrast, saturation, hue, brightness).

**11. 【White Balance】** Adjust white balance parameters, Auto (default)/Daylight/Fluorescent/ Tungsten/Cloudy/Custom (adjustable color temperature).

## More Settings




**1. 【Device Status Bar】** 80% : Displays camera battery level, OBSBOT : Displays current network status, : Allows for camera power-off, : Display the connection status of relevant accessories.

**2. 【Preset Mode】** It supports users to configure camera parameters and save them as a separate mode. Non-members are limited to one preset mode, while members can set multiple modes.

**3. 【Gesture Control】** Supports three types of gesture control: ① Turn on/off Human Tracking; ② Start/Stop Recording; ③ Execute Zoom in/out.

**4. 【Tracking Settings】** Supports locking the pan axis/tilt axis.

**5. 【Audio Settings】** Supports linear input/mic input. After connecting an external audio input device, you can adjust audio parameters such as volume, noise reduction, and gain.

**6. 【Night View Mode】** Enabling Night View Mode will enhance the shooting performance in low-light environments.

**7. 【Auto Focus】** Global Focus/Face Focus/Foreground Focus (When Foreground Focus is enabled, it will prioritize focusing on nearby objects).

**8. 【Face Auto Exposure】** Turn off (global exposure)/Turn on (face auto exposure).

**9. 【ISO Upper and Lower Limits】** Adjust ISO upper and lower limits, range: 100-6400 (ISO Upper Limit > ISO Lower Limit).

**10. 【Output】** Can enable UVC/NDI/RTSP/SRT modes, default is Disabled.
**UVC Mode:** After enabling UVC mode, NDI/Recording/Live Streaming/RTSP/SRT will not be available.
**NDI Mode:** After enabling NDI mode, UVC/RTSP/SRT/Live Streaming will not be available.
⚠ NDI mode needs to be activated manually, and the NDI License Key must be purchased separately at http://www.obsbot.com.
**RTSP Mode:** After enabling RTSP mode, UVC/NDI/SRT/Live Streaming will not be available.
**SRT Mode:** After enabling SRT mode, UVC/RTSP/NDI/Live Streaming will not be available.
**SRT Settings:** Supports Caller/Listener modes. Before enabling SRT, the corresponding configuration must be completed.
**Media Settings:** Adjust parameters such as resolution, frame rate, encoding format, and bitrate for recording, NDI (RTSP/SRT), and live streaming.
**3G-SDI Output:** Supports both Level-A and Level-B formats.

**11. 【Roll Axis Fine Adjustment】** Supports adjusting the roll axis angle from -10° to 10°.

**12. 【Tail 2 Settings】** Set camera functions.
**Power-on Recording:** Default disable. When enabled, the camera will start recording automatically when it powers on.
**Power-on Live Streaming:** Default disable. When enabled, the camera will start live streaming automatically upon powering on (requires configuring live streaming information).
**Auto Power Off:** Tap to set Tail 2's duration. If there is no operation on the camera within the set duration, the camera will automatically power off.
**Timed Power Off:** Default disable. When enabled, you can set the scheduled power-off time and date.
**Timed Power On:** Default disable. When enabled, you can set the scheduled power-on time and date.
**Status Light:** Default enable, adjustable status light brightness. The device status corresponding to the indicator light can be viewed in the "Status Indicator" table.
**Battery Light:** Default enable, the battery status corresponding to the indicator light can be viewed in the "Battery Indicator" table.
**Tally Light:** Default enable, adjustable status light brightness. The NDI video stream status corresponding to the indicator light can be viewed in the "Tally Light" table.
**Buzzer:** Default enable, audible prompts help determine the camera's status. The corresponding status indications can be viewed in the "Buzzer" table.
**Plug/Unplug to Power On/Off:** Default disable, when enabled, the camera will automatically power on when powered, and power off when disconnected.

**13. 【Live Broadcast Settings】** Set the default streaming method (used when the selected output platform and RTMP configuration are duplicated).

**14. 【Customize Buttons】** Set the function of the custom button on the remote control, which requires the use of the OBSBOT Smart Remote Controller.
Click: None (default), On/Off Status Light, On/Off Tally Light, On/Off Buzzer, Zoom to 1.0x, Trigger Initial Position (long press to update initial position).
Double-click: None, Switch the Human Tracking Mode, Landscape/Portrait Mode Switch (default), Find Tail 2.
⚠ OBSBOT Smart Remote Controller need to be purchased separately on http://www.obsbot.com.

**15. 【Preset Position Switching Speed】** Supports adjusting the gimbal speed when switching to preset positions P1/P2/P3.

**16. 【SD Card】** View the total capacity and current remaining memory of the SD card, and format the SD card.

**17. 【Video Segmentation】** 4G / 8G / 16G / 32G (default) / 64G.
⚠ Only exFAT-formatted SD cards support this function.



**18. 【Control Protocol】** Supports three serial protocols: VISCA/Pelco-D/Pelco-P. You can set the corresponding address and baud rate for each protocol.
The feature list for the VISCA protocol can be viewed and downloaded at https://www.obsbot.com/explore/obsbot-tail-air/visca-over-ip.
The feature list for the Pelco-D/Pelco-P protocols can be viewed and downloaded at https://www.obsbot.com/explore/obsbot-tail-2/pelco-d-pelco-p.

**19. 【Reset All Connections】** Clears all connection records for the camera.

**20. 【Restore Factory Settings】** Tap to restore the camera to its original factory settings. This will delete all the current settings, and the camera will be restored to the original factory settings and restart.

**21. 【Feedback】** Enter user descriptions to submit feedback to the backend.

**22. 【About Device】** Display camera information, including device name, device model, serial number, Wi-Fi/Bluetooth/Wired MAC address, RTSP information, network configuration, firmware version, etc.

## AI Settings




**1. 【Tracking Mode】** In human tracking, it supports single mode and group mode.

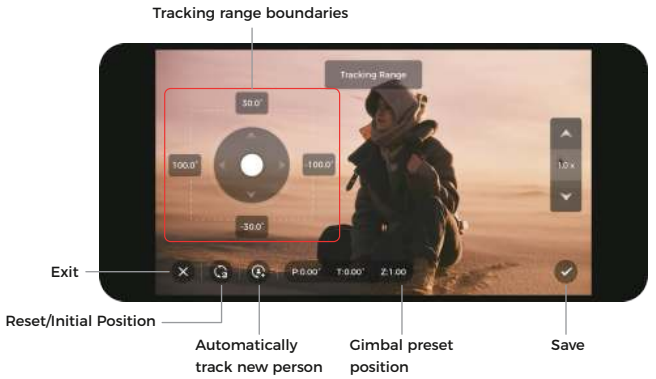
**2. 【Only Me】** Disable (default)/Enable. When enabled, it will only track the currently selected portrait target.

**3. 【Auto Zoom】** Human tracking supports eight levels of adjustment: Off (default)/3/5/7/9/10/16/24, The camera will perform automatic zooming based on the selected portrait frame size. Animal Tracking/Object Tracking supports: Off (default)/Close-up.

**4. 【Tracking Speed】** Super Lazy/Lazy/Slow/Fast (default)/Crazy/Custom. In custom mode, you can individually adjust the speed of the pan axis and tilt axis.

**5. 【Composition Lines】** Adjust the positioning of the target in the frame. In human tracking, it supports Face Framing. When enabled, it will automatically adjust the horizontal composition based on the direction of the face.

**6. 【Tracking Range】** Tap to enter the tracking range settings interface, and configure the tracking range supported in human tracking.



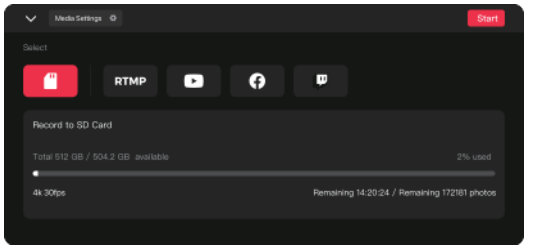

**Tracking range boundaries:** Set the upper/lower/left/right boundaries to ensure tracking only works within the defined range.
**Reset/Initial Position:** Tap to reset Tail 2 to its initial position. Long press to set the initial position.
**Automatically track new person:** Disable (default)/Enable.
When off, after the original portrait target leaves the tracking range:
a) When the original person appears within the tracking range, automatically track the original person;
b) When a new person appears within the tracking range, tracking will not be activated.
When on, after the original portrait target leaves the tracking range:
a) When the original person appears within the tracking range, automatically track the original person;
b) When a new person appears within the tracking range, automatically track the new person.
**Gimbal preset position:** When the tracking target exceeds the tracking range, the gimbal will return to the preset position.

**7. 【Gimbal and View】** Tap to bring up the gimbal control and zoom panel, enabling manual control of the gimbal and zoom.

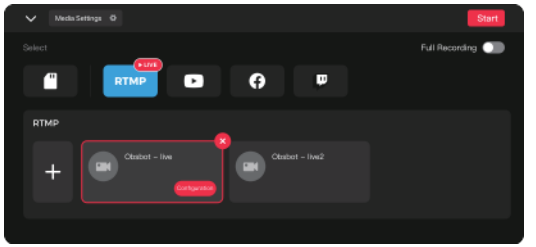


## Recording & Live Streaming Configuration

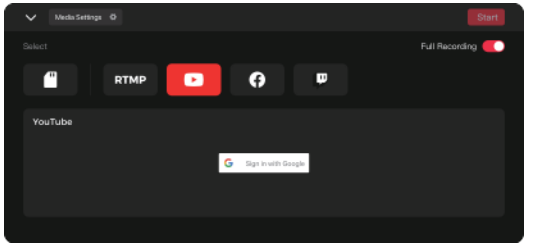
**1. Recording**
Selecting recording displays SD card information. Tap the "Start" button in the upper right corner to start video recording.




**2. RTMP**
Selecting RTMP requires manually entering RTMP information, including RTMP name, RTMP URL, and stream key (optional). After successful creation, tap "Start" in the upper right corner to start live streaming.




**3. Live Streaming Platform**
When selecting third-party live platforms (including Facebook, YouTube, and Twitch, log in to the respective platform account and configure live streaming information. After successful setup, tap "Start" in the upper right corner to start live streaming.




⚠ When choosing RTMP or a third-party live platform, you can enable continuous recording throughout the entire process. When enabled, recording will synchronize with live streaming, and you can manually stop recording during the live broadcast.

# Web UI

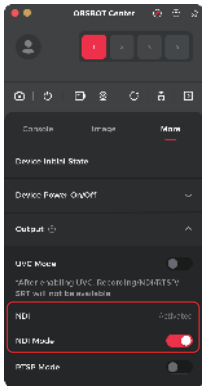
## Access Web UI

Users can also access the Tail 2 Web UI to preview the live feed and control the camera. Three access methods are supported.

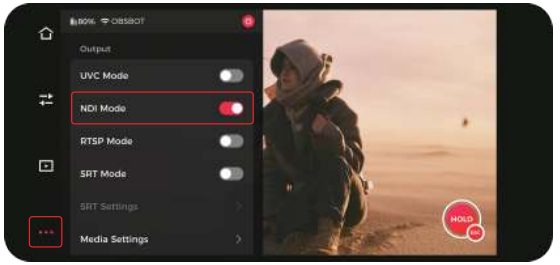
**1. Through the "NDI Studio Monitor" Program**

① Ensure that the computer and the Tail 2 are in the same local network and install NDI tools. (NDI Tools download link: https://ndi.video/type/ndi-tools )

② Open Tail 2 NDI mode through Obsbot Start or OBSBOT Center.

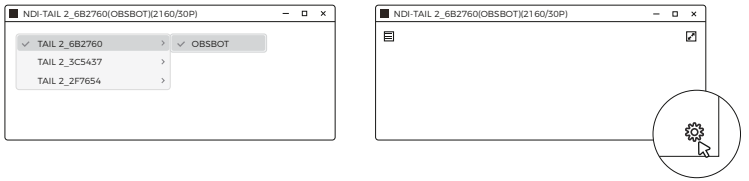



* OBSBOT Center -> More -> Output -> NDI Mode On




* Obsbot Start -> More Settings -> Output -> NDI Mode On

③ In "NDI Studio Monitor" , select the NDI source, click on the icon " ⚙ " in the lower right corner, and you can directly access the Web UI.

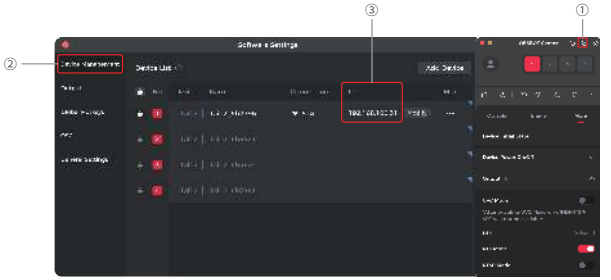




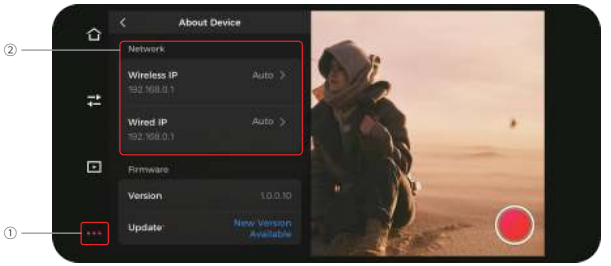

**2. Through Tail 2's IP Address**

① Ensure that the computer and the Tail 2 are in the same local network.

② You can check the current device's IP address through Obsbot Start or OBSBOT Center.




* OBSBOT Center -> Set ⚙ -> Device Management -> Corresponding device IP address




* Obsbot Start -> More Settings -> About Device -> Network -> Corresponding IP address

③ Enter "http://Tail 2 IP address" in the browser to access the Web UI.

**3. Through Tail 2 Default Device Name (Tail_2_XXXXXX)**

① Ensure that the computer and the Tail 2 are in the same local network.

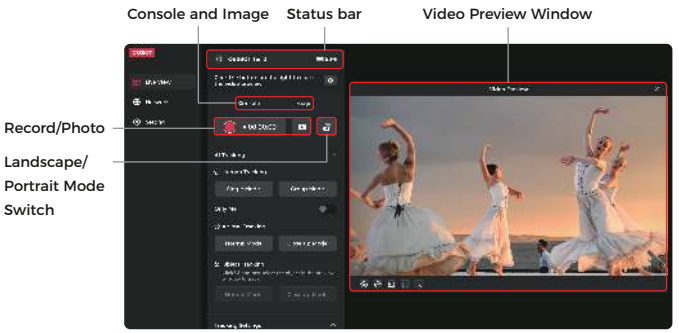
② Enter "http://device default name.local" in the browser to access the Web UI. The default device name is "**Tail_2_XXXXXX**" (the space between "Tail" and "2" in the name seen on Obsbot Start/Obsbot Live/OBSBOT Center should be replaced with "_").

## Web UI Interface

The Web UI includes three functional pages: "Live View" "Network" and "Settings". You can switch between these pages for operation via the navigation bar on the left side.



## 1. Live View – Video preview




【Status bar】 : Allows for camera power-off 98% : displays camera battery level.
【Record/Photo】 Click the record button to start recording; the recording duration will be displayed in real time. Click the photo button to take a snapshot.
【Landscape/Portrait Mode Switch】 Click to switch between landscape and portrait mode.
【Video Preview Window】 The video preview window allows users to view the current camera feed in real time.
: Click to rotate the image 90° to the left : Click to rotate the image 90° to the right
: Click to switch the aspect ratio between 16:9 or 9:16.
: Click to enter the composition line settings interface, adjust the positioning of the target in the frame. In human tracking, it supports face framing. When enabled, it will automatically adjust the horizontal composition based on the direction of the face.

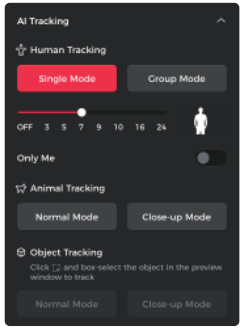



: Click to enter the object selection interface, then draw a box around the target object to track it.

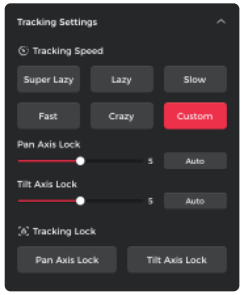




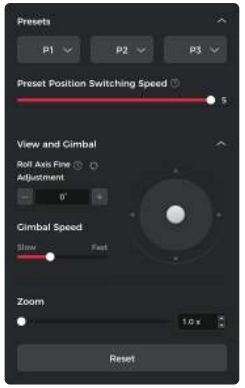

## 2. Live View – Console




【Human Tracking】 Human tracking supports two tracking modes: Single mode/Group mode.
【Auto Zoom】 Human tracking supports eight levels of adjustment: Off (default)/3/5/7/9/10/16/24, The camera will perform automatic zooming based on the selected portrait frame size.
【Only Me】 When enabled, it will only track the currently selected portrait target. (This feature is only supported under human tracking)
【Animal Tracking】 Animal tracking supports two tracking modes: Normal Mode/Close-up Mode.
【Object Tracking】 Object Tracking supports two tracking modes: Normal Mode/Close-up Mode. You need to box-select the object in the preview window to track.



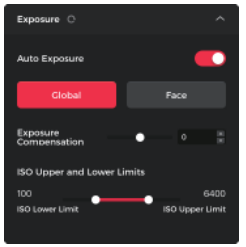

【Tracking Speed】 Click to switch tracking speed: Super Lazy/Lazy/Slow/Fast (default)/Crazy/Custom. In custom mode, you can individually adjust the speed of the pan axis and tilt axis.
【Tracking Lock】 Supports Pan Axis Lock/Tilt Axis Lock.




【Presets】 Click to add a preset position, supporting up to three preset positions: P1, P2, and P3. The dropdown options support: Update PTZ/Set as Initial State/Delete/Rename.
【Preset Position Switching Speed】 Supports adjusting the gimbal speed when switching to preset positions P1/P2/P3.
【Roll Axis Fine Adjustment】 Supports adjusting the roll axis angle from -10° to 10°.
【Gimbal Control】 You can control the movement of the gimbal.
【Gimbal Speed】 You can adjust the speed of the gimbal movement.
【Zoom】 Supports adjusting the zoom range from 1x to 12x.
【Reset】 Click to reset, and the gimbal will return to the default position.

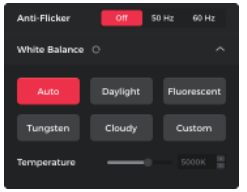
### 3.Live View – Image

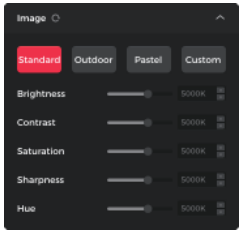



【HDR】 Disable (default)/Enable.
【ImageFlip】 When enabled, the image will be horizontally flipped (mirrored).
【Auto Focus】 AF-S (Single Autofocus)/AF-C (Continuous Autofocus)/MF (Manual Focus).
【Auto Focus Mode】 Global/Face (default)/Foreground.
【Exposure】 Supports both auto exposure and manual exposure.
【Auto Exposure】 Supports adjusting exposure compensation and ISO upper and lower limit.
【Manual Exposure】 Supports adjusting shutter speed and ISO value.

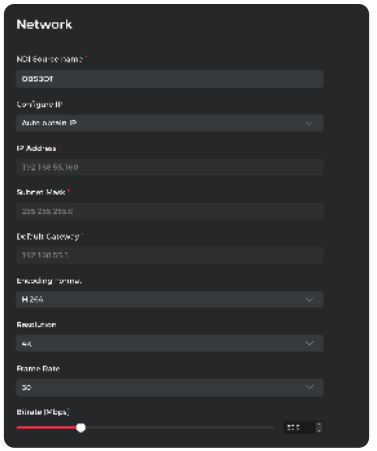




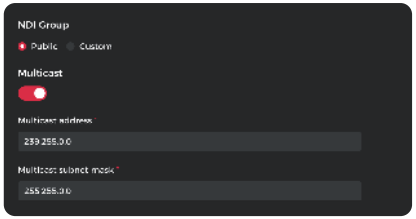




【Anti-Flicker】 Off (default)/50Hz/60Hz. Set the anti-flicker frequency to reduce flickering caused by fluorescent lights or TV screens when shooting indoors.
【White Balance】 Adjust white balance parameters, Auto (default)/Daylight/Fluorescent/Tungsten/Cloudy/Custom (adjustable color temperature).
【Image】 Switch image styles, Standard (default)/Outdoor/Pastel/Custom (adjustable sharpness, contrast, saturation, hue, brightness).

### 4. Network

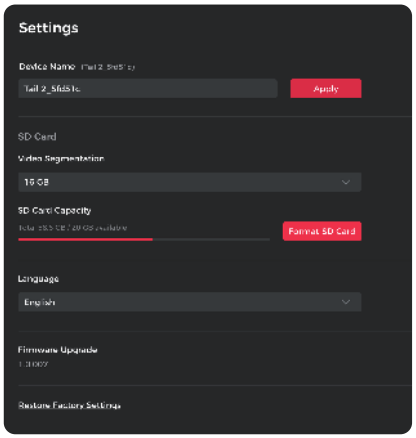



【NDI Source name】 Supports changing the name of the device's NDI source.
【Configure IP】 Supports both auto obtain IP and manual configuration.
Auto obtain IP: Displays the device's current IP address, subnet mask, and default gateway.
Manual IP Configuration: Supports manually setting the device's IP address, subnet mask, and default gateway.
【NDI Media Settings】 Supports setting the NDI source's encoding format, resolution, frame rate, and bitrate.




**【NDI group】** Supports setting the NDI group to either public or custom. In custom mode, multiple groups can be set, separated by commas.
**【Multicast】** When multicast is enabled, the camera video stream can be sent to multiple receiving devices simultaneously.
You need to enter the corresponding multicast address and multicast subnet mask. The multicast address supports the format: 224.0.0.0~255.255.255.255.

**5. Settings**




**【Device Name】** Displays the current device name, with support for manual modification by the user.
**【Video Segmentation】** 4G/8G/16G/32G (default)/64G.
⚠ Only exFAT-formatted SD cards support this function.
**【SD card capacity】** View the total capacity and current remaining memory of the SD card, and format the SD card.
**【Language】** Supports switching between Simplified Chinese, Traditional Chinese, English, Korean, Japanese, German, French, and Spanish.
**【Firmware Upgrade】** Displays the current device's firmware version number.
**【Restore Factory Settings】** Tap to restore the camera to its original factory settings. This will delete all the current settings, and the camera will be restored to the original factory settings and restart.



# Firmware Upgrade

## Firmware Upgrade Overview

① During the upgrade, the yellow and blue lights will flash alternately.
② After a successful upgrade, the status indicator light changes to normal operating mode. You can connect to the App to check the upgrade results.
③ If the upgrade fails, the light will turn red, and the camera will emit a beeping sound.

## Upgrade via Obsbot Start App

Connect the OBSBOT Tail 2 to your phone via Obsbot Start App. The App will give you an upgrade notice when you are due an upgrade. Then follow the App instructions to upgrade.

## Upgrade via OBSBOT Center

Connect the OBSBOT Tail 2 to OBSBOT Center. If a firmware update is available, you will receive a prompt. Please follow the instructions to proceed with the update.

## Using Micro SD Card to Upgrade

Please download the latest upgrade package on OBSBOT's official website. Unzip the upgrade package and copy the .bin file to the Micro SD card root directory. Insert the Micro SD card into your Tail 2. Once Tail 2 reads the Micro SD card, it will restart and upgrade.
⚠ Before upgrading, make sure the camera battery is at 15% or higher.
⚠ After completing the upgrade, you can check the result through the .txt file in the Micro SD card root directory.

# Specifications

| | | |
|---|---|---|
| Product | | Tail 2 |
| Model | | OAB-2305-CW |
| Size | | Working State: 97.5*103.5*155mm<br>Off State: 97.5*103.5*172mm |
| Weight | | 1.066kg |
| AI chip | | Integrated AI chip, Trillions of calculations per second |
| Camera | Image sensor | 1/1.5" CMOS |
| | Pixel Size | 2.0μm*2.0μm |
| | Effective Pixels | 50 million |
| | Effective Pixel Resolution | 8192x6144 |
| | Lens System | 12x Optical Lenses |
| | Zoom Range | 12x Hybrid Zoom (include 5x Optical Zoom) |
| | Aperture | f/1.8- f/3.0 |
| | Focus | Auto Focus/Manual Focus |
| | Effective Focal Length | 4.6mm-23mm |
| | Equivalent Focal Length | 22mm-110mm |
| | Field of View | W (1x) : FOV (D): 89°; FOV (H): 81°<br>T (5x) : FOV (D): 21°; FOV (H): 18° |
| | ISO Range | 100~6400 |
| | Exposure Value | ±3 EV |
| | Electronic Shutter Speed | 1/8000s to the limit of frames per second |
| | White Balance | 2000K-10000K |
| | Gyroscope | 6-axis Gyroscope |
| | Photo Resolution | 4K, 1080P, 720P |
| | Resolution and Frame Rate | Recording<br>4K:<br>3840*2160@60/59.94/50/48/30/29.97/25/23.98 fps<br>1080p:<br>1920*1080@120/60/59.94/50/48/30/29.97/25/23.98 fps<br>720p:<br>1280*720@120/60/59.94/50/48/30/29.97/25/23.98 fps<br><br>HDMI<br>4K: 3840*2160@60/59.94/50/30/29.97/25/24 fps<br>1080p: 1920*1080@60/59.94/50/30/29.97/25/24 fps<br>1080i: 1920*1080i@60/59.94/50 fps<br>720p: 1280*720@60/50 fps |
| | | SDI<br>1080p: 1920*1080@60/59.94/50/30/29.97/25/24 fps<br><br>NDI/RTSP/SRT<br>4K: 3840*2160@60/59.94/50/48/30/29.97/25/23.98 fps<br>1080p: 1920*1080@60/59.94/50/48/30/29.97/25/23.98 fps<br>720p: 1280*720@60/59.94/50/48/30/29.97/25/23.98 fps |
| | Max Video Storage Bitrate | H.264: 160Mbps, H.265: 160Mbps |
| | Video Format | MJPEG 、H.264、H.265 |
| | Supported File System | FAT32、exFAT<br>*Only exFAT supports segmented video storage. |
| 3-axis gimbal | Gimbal installation | Non-removable |
| | Controllable Range | Pan: ±160°; Tilt: -60°~32°; Roll: -120°~120° |
| | Mechanical Range | Pan: ±175°; Tilt: ±90°; Roll: -135°~135° |
| | Max Controllable Speed | 120°/s |
| | Angle Jitter | ±0.003° |
| Wi-Fi | Wi-Fi Operating Frequency | 2.4 G/5.8 GHz |
| | Wi-Fi Signal Transmission Range | 2.4G 140m; 5.8G 80m |
| | Wi-Fi Protocol | 802.11 a/b/g/n/ac/ax |
| Bluetooth | Bluetooth Protocol | BLE 5.4 |
| | Bluetooth Operation Frequency Range | 2.400 GHz to 2.4835 GHz |
| | Bluetooth Transmitter Power (EIRP) | < 14 dBm |
| I/O Interface | Power Input | USB-C: Default 5V/2A, supports USB PD3.0 fast charging protocol standard<br>Maximum input voltage 20V, maximum input current 2A (Recommended to use a charger that supports USB PD3.0 standard to ensure proper charging)<br>PoE+: IEEE 802.3 af/at, maximum supported input power 30W |
| | Video Interface | 1* HDMI 2.0、1* 3G-SDI、1* USB-C 3.0 |
| | Network Interface | 1* RJ45 10/100/1000Mbps Ethernet port (with PoE+) |
| | Audio Interface | 1* MIC IN【3.5mm TRS Connector (AUX)】, 1* LINE IN【3.5mm TRS Connector (AUX)】 |
| | Control Interface | 1* 2.5mm RS232 input, Protocol: VISCA/Pelco-D/Pelco-P<br>1* 2.5mm RS232 output, Protocol: VISCA/Pelco-D/Pelco-P<br>1* USB-C 3.0, Protocol: UVC |
| Battery | Battery Type | Lithium Polymer (Li-po) |
| | Battery Capacity | 5000mAh |
| | Battery Energy | 38Wh |

| | | |
|---|---|---|
| Battery | Battery Voltage | 7.6V |
| | Operating Time | 343 minutes<br>*Measured during continuous 1080p/30fps video recording under laboratory conditions, values are for reference only |
| | Charging Time | 150 Mins (When powered off) |
| Memory card | Type | Micro SD (Maximum Support: 1TB) |
| Auxiliary Functions | | Gesture Control |
| Auxiliary Software | | Obsbot Start \| OBSBOT Center \| Obsbot Live |
| Operating environment | Camera working environment temperature | -10˚C~40˚C |
| | Battery charging ambient temperature | -10˚C~40˚C |
| | Battery operating ambient temperature | -10˚C~40˚C |



Please note that the content may be updated without prior notice. To access the most recent version of the manual book, please download it from:
https://www.obsbot.com