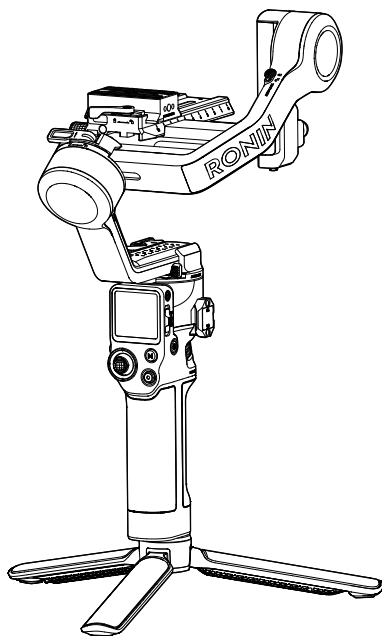


# **dji** RS 3

## User Manual

v1.2 2022.06



### **Searching for Keywords**

Search for keywords such as "battery" and "install" to find a topic. If you are using Adobe Acrobat Reader to read this document, press Ctrl+F on Windows or Command+F on Mac to begin a search.

### **Navigating to a Topic**




View a complete list of topics in the table of contents. Click on a topic to navigate to that section.

### **Printing this Document**

This document supports high resolution printing.

# Using this Manual

## Legend

-  Important
-  Hints and Tips
-  Reference

## Before You Begin

The following documents have been produced to help you safely operate and make full use of your DJI™ RS 3.

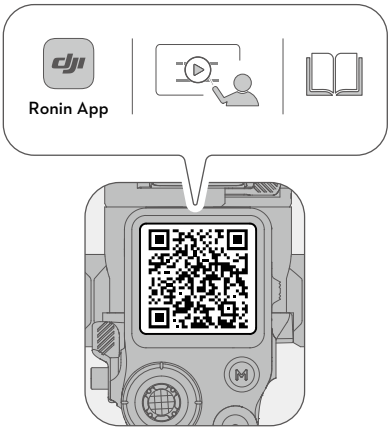
DJI RS 3 Quick Start Guide

DJI RS 3 User Manual

DJI RS 3 Safety Guidelines

Read the entire quick start guide and user manual and watch the informational and tutorial videos on the product page of the DJI official website (<https://www.dji.com/rs-3>). Read the safety guidelines to understand your legal rights and responsibilities. If you have any questions or problems during the installation, maintenance, or use of this product, contact DJI or a DJI authorized dealer.

## Download the Ronin App and Watch the Tutorial Videos



<https://s.dji.com/guide20>



iOS 11.0 or above



Android 7.0 or above

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# Introduction

DJI RS 3 is a professional single-handed 3-axis gimbal specifically designed for mirrorless cameras. It is compatible with a wide range of mainstream cameras using a 24-70 mm F2.8 lens and supports a tested payload of up to 3 kg. DJI RS 3 boasts enhanced gimbal performance thanks to the 3rd-Gen RS Stabilization Algorithm.

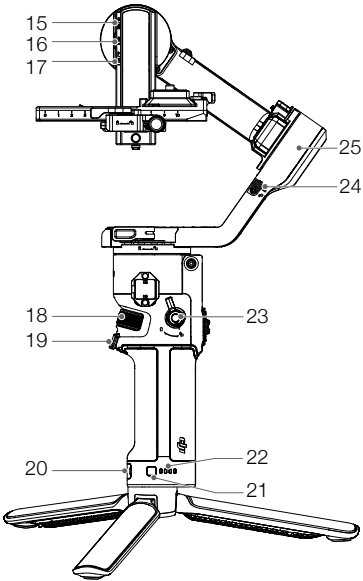
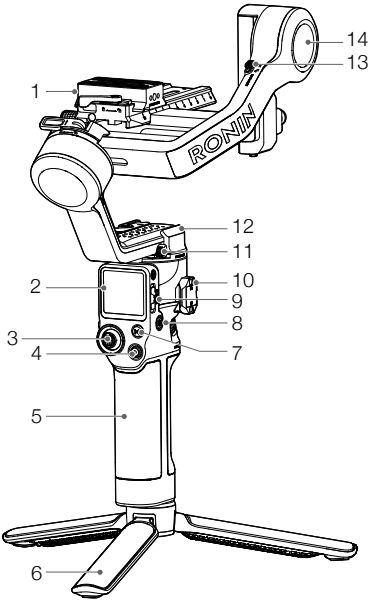
With the brand-new automated axis locks, DJI RS 3 enables faster and more convenient installation, balancing, and storage. With a 1.8-inch OLED full-color touchscreen, users can calibrate the gimbal and set parameters. The onboard buttons allow users to control the gimbal movement, photo capture, recording, and camera focus. By implementing Dual-Mode Bluetooth, RS 3 supports wireless shutter control. The onboard NATO port supports the new Briefcase Handle and DJI R Twist Grip Dual Handle. The detachable grip has a built-in battery with a capacity of 3000 mAh, providing a maximum standby time of up to 12 hours.\*

After connecting to the Ronin app, easily control gimbal movement and parameter settings. With the DJI Ronin Image Transmitter mounted, users can shoot smooth footage while automatically tracking a subject with ActiveTrack Pro.

Works with the new DJI RS Focus Motor (2022) to control focus with manual lenses.

\* Measured with the equipment in a level and stationary state, the gimbal balanced, three axes in an active state, and the battery only powering the gimbal.

# DJI RS 3 Diagram



- 1. Upper/Lower Quick-Release Plate
- 2. 1.8-inch OLED Full-Color Touchscreen
- 3. Joystick
- 4. Camera Control Button
- 5. BG21 Grip (Built-in battery with 1/4"-20 screw hole)
- 6. Extended Grip/Tripod
- 7. M Button
- 8. Power Button
- 9. Gimbal Mode Switch
- 10. NATO Ports
- 11. Pan Lock
- 12. Pan Motor
- 13. Tilt Lock
- 14. Tilt Motor

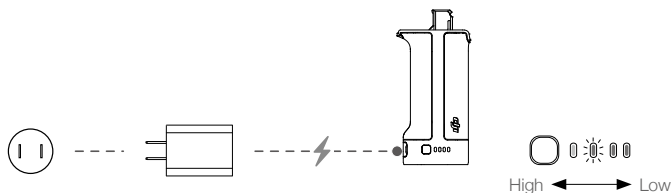
- 15. RSS Camera Control Port (USB-C)
- 16. Focus Motor Port (USB-C)
- 17. Ronin Image Transmission Port (USB-C)
- 18. Front Dial
- 19. Trigger
- 20. Power Port (USB-C)
- 21. Battery Level Button
- 22. Battery Level Indicators
- 23. Grip Lever/Safety Button
- 24. Roll Lock
- 25. Roll Motor

# Using For The First Time

## Charging the Battery

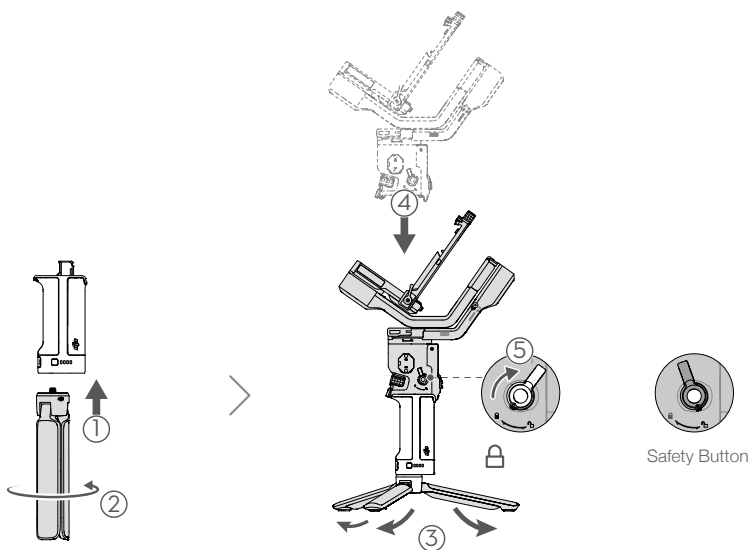
Before using for the first time, charge the battery grip through the power port using a charging cable (included) and a USB adapter (not included). It is recommended to use a USB adapter with PD protocol (max. 18 W).

During charging, the battery level indicators indicate the battery level. The battery level indicators turn off when fully charged. Press the battery level button to check the battery level.



## Attaching the Extended Grip/Tripod

1. Attach the extended grip/tripod to the grip ①, tighten ②, and then unfold the tripod ③.
2. Insert the grip into the gimbal as shown ④. Make sure the grip lever is in the unlocked position, and then toggle to the locked position after attaching ⑤.



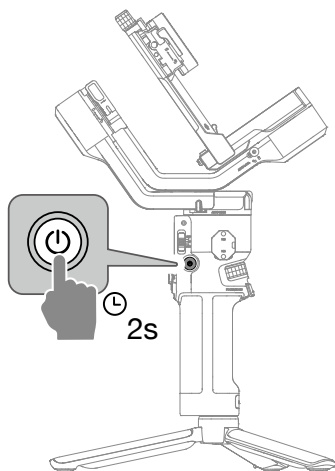
To remove the grip, toggle the lever to the unlocked position, hold down the safety button, and pull the grip away from the gimbal.

## Activation

Activation is required for DJI RS 3 through the Ronin app. Follow the steps below to activate RS 3:

1. Press and hold the power button to power on RS 3, and select the language on the touchscreen.
2. Scan the QR code on the screen to download the Ronin app. If the activation step is skipped, the gimbal will unlock automatically and prompt on-screen instructions.
3. Enable Bluetooth on the mobile phone. Launch the Ronin app and log in with a DJI account. Select DJI RS 3, type in the default password 12345678, and activate the gimbal according to the instructions. An internet connection is required for activation. The gimbal will unlock automatically after activation is successful.


 DJI RS 3 supports up to five uses without activation. After that, activation is required for further use.



## Firmware Update

If new firmware is available, you will be notified by the Ronin app. Update the firmware according to the on-screen instructions. Do not power off the gimbal or exit the app during the firmware update.

The Ronin app will prompt if the update is successful. If the update fails, restart the gimbal and Ronin app, and try again.

-  • Make sure the gimbal has sufficient power before updating.
- Ensure the mobile phone is connected to the internet when updating.
  - Do not power off the gimbal when updating.
  - The axis locks will lock automatically when the update starts. It is normal for the axis locks to lock or unlock during the process.

## Mounting the Camera

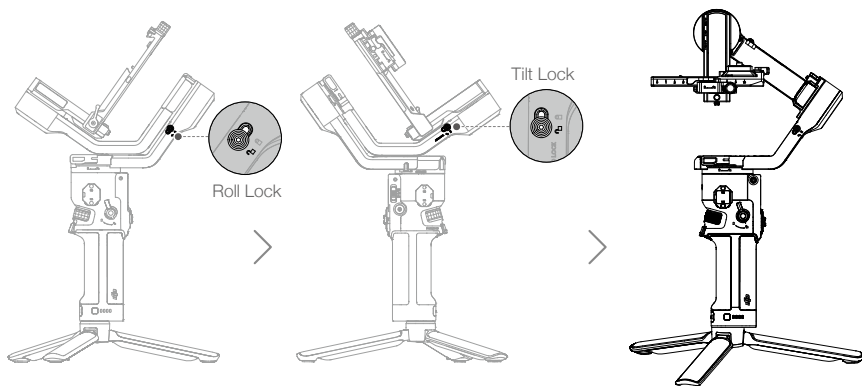
### Supported Cameras and Lenses

DJI RS 3 has been rigorously tested to support a payload of 3 kg. Make sure the combined weight of the camera, lens, and other accessories are within 3 kg. Refer to the official DJI website (<https://www.dji.com/support/compatibility>) for the most updated Ronin Series Compatibility List.

### Mounting a Camera

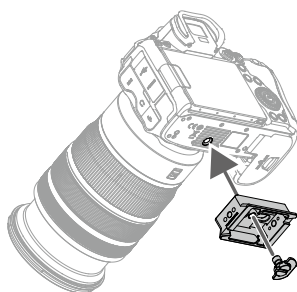
Make sure to prepare the camera before mounting it to DJI RS 3. Remove the lens cap and check that the battery and memory card are inserted in the camera.

Make sure DJI RS 3 is powered off or in sleep mode before mounting the camera. Toggle the tilt lock and roll lock to the unlocked position and adjust the gimbal position as shown, and then toggle the two locks to the locked position.



#### 1. Attach the Upper Quick-Release Plate

Attach the upper quick-release plate to the camera by tightening the screw.

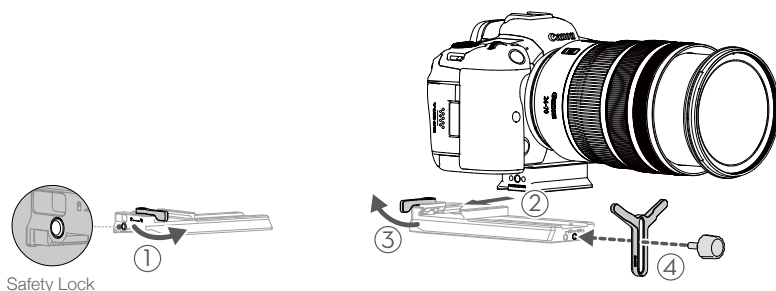


## 2. Attach the Lower Quick-Release Plate and Lens-Fastening Support

Toggle the lever on the lower quick-release plate to the unlocked position ①, then insert the camera ② and toggle the lever to the locked position ③ after it is engaged. Attach the lens-fastening support to the lower quick-release plate ④.

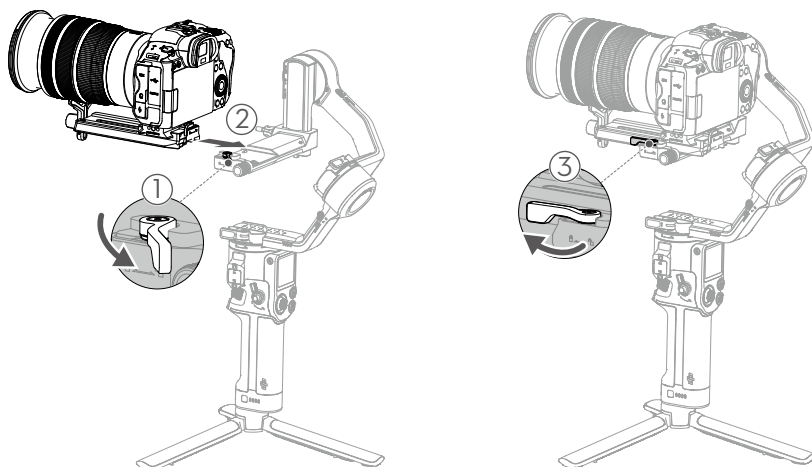
It is recommended to use the lens-fastening support when using a long or heavy lens, and always use the lens-fastening support before enabling SuperSmooth mode.

To remove the camera from the lower quick-release plate, toggle the lever to the unlocked position and remove the camera while pressing the safety lock beside the lever.

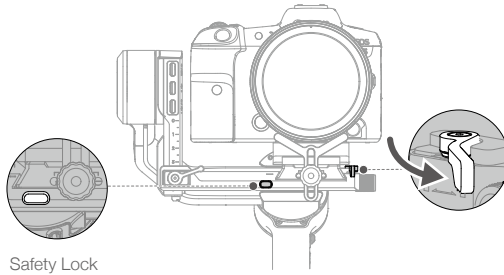


## 3. Attach the Camera to the Gimbal

Toggle the lever on the camera mounting plate to the unlocked position ① and insert the lower quick-release plate ②. Toggle the lever to the locked position ③ once the camera is roughly balanced.



To remove the lower quick-release plate, toggle the lever on the camera mounting plate to the unlocked position and remove the lower quick-release plate while pressing the safety lock on the mounting plate.



#### 4. Connecting a Camera

DJI RS 3 supports wireless camera connection using Bluetooth, camera control is available without a cable connection. Swipe down from the top of the touchscreen on the Home screen to enter the Control Center. Tap the Bluetooth icon and tap connect, the gimbal and camera will start to pair. The Bluetooth icon turns blue indicating connection is successful.

For Sony-series cameras, remote Bluetooth control needs to be enabled before connecting to the gimbal.

For Canon-series cameras, remote control mode for photo or record mode needs to be enabled before connecting to the gimbal.

Refer to the Ronin Series Compatibility list for more camera settings when using a Bluetooth connection.

Choose the proper camera control cable for cameras that do not support Bluetooth according to the camera type. Plug one end of the cable into the camera and plug the other end into the RSS camera control port of the gimbal.



- Refer to the Ronin Series Compatibility list for supported camera models.
  - Some camera control cables need to be purchased separately.
-

## Balancing

To obtain the best performance from DJI RS 3, proper balancing is essential. Proper balance is critical for shots with DJI RS 3 where fast motion or acceleration is required and also offers longer battery runtimes. There are three axes that need to be properly balanced before powering on DJI RS 3 and setting up the software.

### Before Balancing

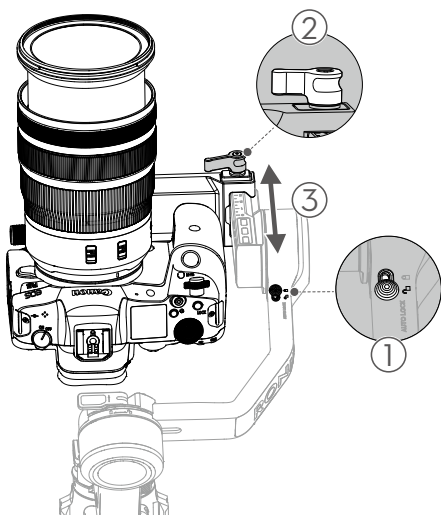
1. The camera needs to be fully configured, with all accessories and cables connected, before installing and balancing the camera on the gimbal. If the camera has a lens cap, make sure to remove it before balancing. Before balancing, make sure to power on the camera if using an optical zoom lens and to select the focal length if using a varifocal lens.
2. Make sure to balance the gimbal with all accessories mounted. Refer to the corresponding accessory user guide for installation steps.
3. Make sure DJI RS 3 is powered off or in sleep mode before balancing.

### Balancing Steps

The balancing steps are the same with or without accessories mounted.

#### 1. Balancing the Vertical Tilt

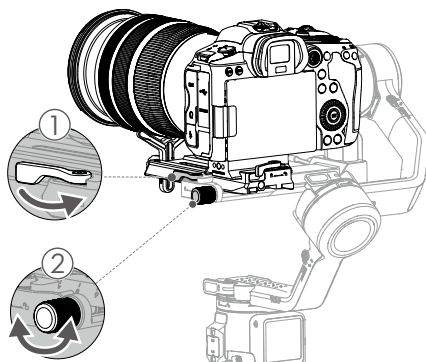
- a. Unlock the tilt axis ① and loosen the mounting plate knob ②.
- b. Rotate the tilt axis so that the camera lens is pointing upward. Check to make sure the camera is not top or bottom-heavy. If top-heavy, move the camera backward ③. If bottom-heavy, move the camera forward ③.
- c. Tighten the mounting plate knob while holding the camera upward. The vertical tilt is balanced when the camera is steady while pointing upward.





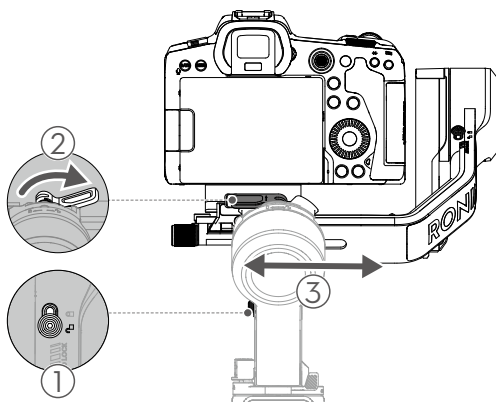
## 2. Balancing Depth for the Tilt Axis

- Rotate the tilt axis so that the camera lens is pointing forward. Toggle the lever to the unlocked position ①.
- Check to make sure the camera is not front or back-heavy. If front-heavy, move the camera backward by turning the knob ②. If back-heavy, move the camera forward.
- Toggle the lever to the locked position. The tilt axis is balanced when the camera is steady while tilted up or down by 45°.
- Lock the tilt axis.



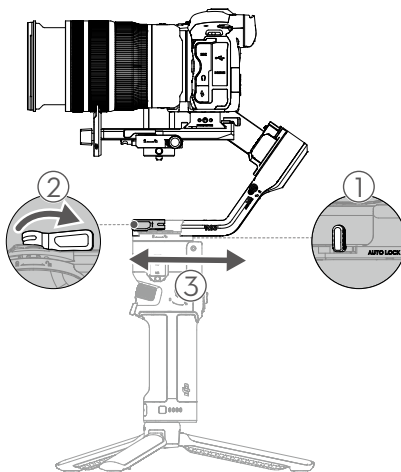
## 3. Balancing the Roll Axis

- Unlock the roll axis ①. Toggle the lever on the roll arm to the unlocked position ②.
- Check the direction in which the roll motor swings. If the camera rotates to the left, move the camera to the right ③. If the camera rotates to the right, move the camera to the left ③.
- Toggle the lever on the roll arm to the locked position. The roll axis is balanced when the camera is steady.
- Lock the roll axis.



#### 4. Balancing the Pan Axis

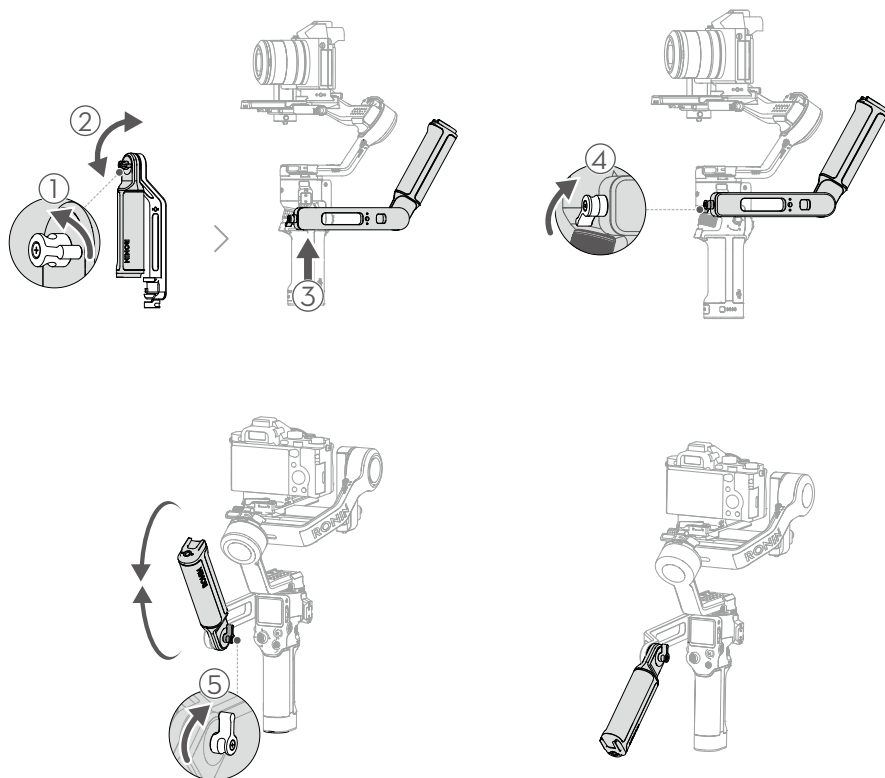
- Unlock the pan axis ①. Toggle the lever on the pan arm to the unlocked position ②.
- While holding the grip, tilt DJI RS 3 forward, and rotate the pan arm until parallel with you.
- Check the movement of the pan axis. If the camera lens rotates to the left, push the pan axis to the right ③. If the camera lens rotates to the right, push the pan axis to the left ③.
- Toggle the lever on the pan arm to the locked position. The pan axis is balanced when the camera is steady when rotating the pan while tilting the grip.



- If mounting a longer camera system, it is necessary to use DJI R Roll Axis Counterweight Set. Visit the official DJI store to purchase the counterweight set.
- The levers on the pan and roll motor can be pulled out to adjust the tightness.


## Briefcase Mode


The briefcase handle helps to switch to briefcase mode after balancing. The angle of the briefcase handle can be adjusted using the knob. The built-in cold shoe mount and 1/4"-20 mounting hole can connect to external monitors for shooting assistance, making low-angle camera movements more intuitive.



## Auto Tune

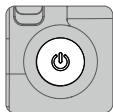
Auto tune provides the proper stiffness for the motor according to the payload to obtain the optimum gimbal performance. The gimbal is ready to be used after auto tune.

Press and hold the power button to power on the gimbal, or press once or twice to exit sleep mode, then press and hold the M button and trigger simultaneously to start auto tune. Auto Tune also can be enabled by tapping the auto tune icon  on the touchscreen.

 Place the gimbal on a steady flat surface. Do not move the gimbal during auto tune. It is normal for the gimbal to shake or make sounds during auto tune.

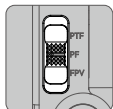
# Operations

## Button and Port Functions



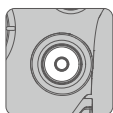
### Power Button

Press and hold to power on or off. Press once or twice to enter or exit sleep mode.



### Gimbal Mode Switch

Toggle to switch gimbal mode from PF, PTF, and FPV.



### Camera Control Button

After connecting the camera, press halfway for autofocus. Press once to start or stop recording. Press and hold to take a photo.



Check the Ronin Series Compatibility list for detailed information on supported camera features.

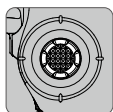


### M Button

Press once to lock or unlock the screen by default. The settings can be changed via the touchscreen.

Press and hold to enter Sport mode. Press and hold and press the trigger twice to remain in Sport mode. Repeat to exit Sport mode. In Sport Mode, the follow speed of the gimbal increases greatly. It is suitable for shooting in scenarios where subjects move suddenly and at fast speeds.

Press and hold the M button together with the trigger to begin auto tune.



### Joystick

Push up or down to control the movement of the tilt axis (default setting). Push left or right to control the movement of the pan axis (default setting).



Joystick control mode and direction can be set in Ronin app.



### Trigger

Press and hold to enter Lock mode. Tap the touchscreen to stay in lock mode, then the trigger can be released.

Tap twice to re-center the gimbal.

Tap three times to turn the gimbal 180° so that the camera faces you (selfie mode).

Tap once to start ActiveTrack (requires DJI Ronin Image Transmitter to be enabled).

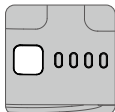


### Front Dial

Turn to control cable-driven focus/zoom by default, the settings can be changed via the touchscreen.

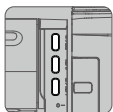


Check the Ronin Series Compatibility list for detailed information on supported features.



### Battery Level Button

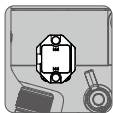
Press once to check battery level.



**RSS Camera Control Port:** For connecting the camera.

**Focus Motor Port:** For connecting the focus motor.

**Ronin Image Transmission Port:** For connecting the DJI Ronin Image Transmitter.



### NATO Port

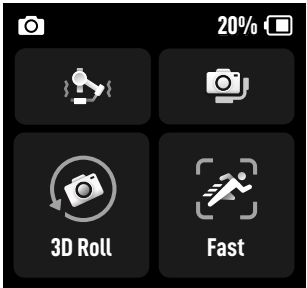
For connecting the DJI R Twist Grip Dual Handle or the Briefcase Handle.

## Automated Axis Locks

The Automated Axis Locks are set to fold and lock when powering on/off and recenter and lock when RS 3 enters/exits sleep mode. Axis locks will unlock automatically after powering on and will lock by pressing once or twice on the power button. Set the axis locks movement on the touchscreen menu. The axis locks can be locked/unlocked manually.

Touchscreen

Home



Camera Status: indicates a camera control cable or Bluetooth is connected.

Battery Level: displays the current battery level of the gimbal. Icon indicates the battery is charged with a normal charger. Icon indicates the battery is charged with a quick charger.

Auto Tune

Use auto tune after balancing. The stiffness value is determined by the payload of the gimbal. Use Auto Tune to obtain the stiffness value automatically after balancing.

The three values indicate the stiffness of the three axes on the auto tune page. Select from Normal and SuperSmooth mode. Normal mode is suitable for most scenarios, and SuperSmooth mode is for fast-moving scenarios. It is recommended to use lens-fastening support when using SuperSmooth before auto tune. The auto tune process takes approximately 15 to 30 seconds.

The motor stiffness adjustment allows you to fine-tune the power that is applied by the motors as they react and balance the weight on each axis. Make sure you leave an extra margin to ensure stability at all times. If the stiffness value is too high the gimbal may shake and if the value is too low the gimbal performance will be affected.

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Use auto tune after balancing the camera, changing the lens focal length, or if the gimbal shakes after changes lenses.

---

Balance Status

When the status bar shows green, this indicates the gimbal is balanced. If the status bar shows yellow, the gimbal is slightly unbalanced. The status bar shows red when the gimbal is critically unbalanced. In this case, re-balance the corresponding axis. To check the balance status of the pan axis, tilt the gimbal 15° left or right and check the status bar.

Follow Mode

The default follow modes can be switched from PF, PTF, and FPV. The tilt motor controls the tilt axis to follow, pan motor controls the pan axis to follow, and roll motor controls the roll axis to follow.

PF: pan follow, where only the pan axis follows the movement of the grip. Suitable for scenarios such as shooting emerging walk-through and arc shots or moving from left to right.

**PTF:** pan and tilt follow, where both the pan and tilt axes follow the movement of the grip. Suitable for scenarios when moving up and down or on a slant.

**FPV:** pan, tilt, and roll follow, where all three axes follow the movement of the grip. Suitable for scenarios when rotating the camera or shooting from a low angle. In FPV mode, select from 3D Roll 360, Portrait, and Custom mode.

**3D Roll 360:** enables footage to be shot while rotating the camera 360°. The tilt axis will rotate 90° so that the camera lens will point up. Push the joystick to the left or right to begin 3D Roll 360. Push the joystick to the left or right twice in quick succession to trigger auto rotation. During auto rotation, press the trigger twice or three times and the camera will stop.

**Portrait:** enable to shoot footage in portrait mode. The tilt axis will rotate 90° so that the camera lens will point up, and the pan axis will also rotate 90° while capturing footage in portrait.

**Custom:** enables or disables any axis follow as required. Lock mode is enabled when the three axes are disabled. All the three axes will not follow the movement of the grip in lock mode.



Hold the gimbal vertical to shoot in Portrait mode. The joystick cannot control the gimbal movement in Portrait mode.

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### Follow Speed

Tap to select follow speed. Users can choose fast, medium, slow, and custom. Tap the icon on the top-right of the touchscreen to customize the speed.

## Slide Up: Gimbal Settings Screen



Slide up from the bottom of the screen to enter the gimbal settings screen.

**Joystick Speed:** allows users to control the speed of the joystick for the gimbal. Users can select from fast, medium, slow, and custom. Tap the icon on the top-right of the touchscreen to customize the speed. The larger the value, the faster the joystick speed.

**Joystick Smoothness:** allows users to control the sensitivity of the gimbal. The lower the smoothness value, the more sensitive the movement of the gimbal.

**Dial Functions:** allows users to set the function of the front dial. Users can choose to control the focus motor, cable-driven focus/zoom, ISO, aperture, shutter speed, roll axis, pan axis, and tilt axis.

**Dial Speed:** allows users to set the response speed of the function set for the front dial.

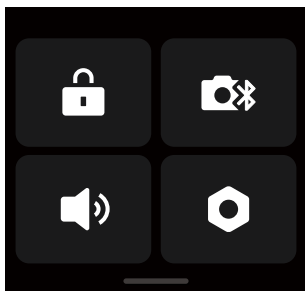
**Dial Smoothness:** the larger the smoothness value, the smoother the movement changing.

**Reverse Dial:** the direction of the dial can be set to reverse.

**M Button:** features can be set to screen lock or photo capture.



## Slide Down: Control Center Screen



Slide down from the top of the screen to enter the control center screen.

### Screen Lock

Tap the screen lock to lock the touchscreen to avoid unexpected operation. Slide up to unlock the touchscreen after enabling screen lock.

### Bluetooth

Tap the icon to connect the camera via Bluetooth. Tap Connect to pair the Bluetooth of the gimbal and camera. The icon turns blue after connecting successfully.



The gimbal can only connect to one camera at a time.

### Silent Mode

Enable to turn off sounds including the alert tone. The sounds of the motor and axis locks cannot be muted.

### System Settings

**Disable Selfie:** prevents accidentally entering selfie mode and interrupting recording. If disabled, Selfie mode will not be entered if the trigger is pressed three times.

**Orbit Follow:** obtain smoother movements after enabling when shooting arc shots.

**Auto Lock:** can be set to recenter and lock, fold and lock, or have no movement when powering on/off. Can be set to recenter and lock or have no movement when entering or exiting sleep mode.

**Push Mode:** enable to manually control the tilt and pan axis.

**Horiz Calibration:** use if the gimbal is unlevel when the gimbal is steady. If the issue persists, use Tune Manually.

**Focus Motor Endpoints:** focus motor calibration can be selected, and the endpoints of the focus motor can be set manually or be disabled.

**Gimbal Auto Check:** tap to analyze and output the status information of the gimbal.

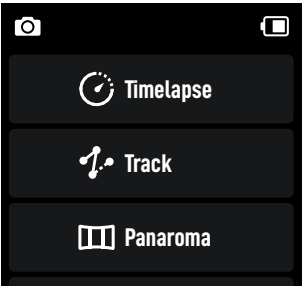
**Restore Parameters:** tap to restore the gimbal parameters and Bluetooth password to default settings.

**Language:** choose the onscreen language from Chinese (Simplified), English, Chinese (Traditional), Japanese, Korean, French, German, Brazilian Portuguese, Spanish, Thai, and Russian.

**Device Info:** displays the SN, Name and Bluetooth information.

**Firmware Version:** displays the firmware version of the gimbal and the attached accessories.

Slide Left: Create Screen



Slide left from the right edge of the screen to enter the Create screen.

**Timelapse**

In Timelapse, DJI RS 3 Pro triggers the camera to capture still images at the set interval time and will automatically stop when completed. The duration for the Timelapse and the interval time can be set so that DJI RS 3 Pro can calculate the exact number of images required, and the duration of the video can be calculated after the frame rate is set.

Motionlapse allows users to set up to five waypoints so that the camera moves and shoots during the Timelapse.

**Track**

Track is designed to capture video with up to 10 waypoints. The waypoint needs to be selected by manually moving the gimbal or using the joystick. Tap + to add a waypoint.

The duration and stay time can be set on the waypoint settings screen after a waypoint is added and the position of the waypoint also can be reset. The duration indicates how much time it will take for the gimbal to travel from one waypoint to the next. The stay time indicates how long the gimbal will remain steady at the waypoint before moving to the next waypoint.

**Panorama**

Panorama allows users to capture a series of interconnecting still images with precise control based on the settings. Users can then generate a panorama using image processing software. The camera captures interconnecting still images based on the setting range when selecting 3x3 or 180° panorama. When creating a 720 VR panorama, users need to set the sensor type, lens focal length, overlap, and interval. When creating a custom panorama, users need to set the shooting range, sensor type, lens focal length, overlap, and interval.

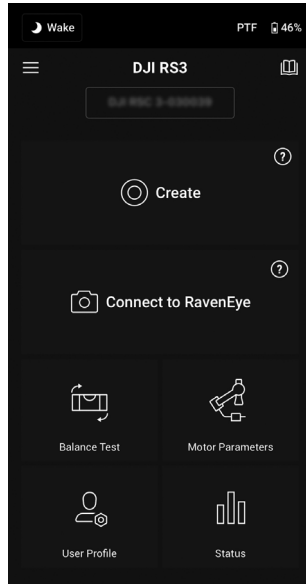


The interval time between shooting photos should be set to one second more than the shutter time to avoid blurred footage when using a long exposure.

---

## Ronin App Settings

The Ronin App contains the features of the touchscreen as well as more features of the gimbal and the DJI Ronin Image Transmitter. The screenshots below are based on the iOS version of the app.



### Top Bar

Sleep/Wake: tap to enter or exit sleep mode.

Follow Mode: display the current follow mode.

Battery Level: displays the battery level of the gimbal.

### ≡ About

Settings: view your account, language, and the quick start guide.

Device List: displays the device SN, device name and password.

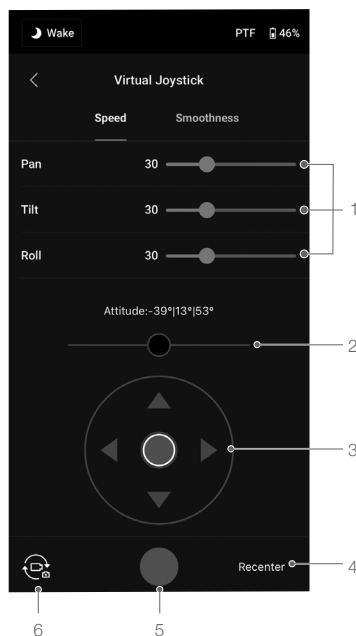
Firmware: displays the firmware version.

### 📖 Academy

Watch the tutorials and read the manual documents.

## Create

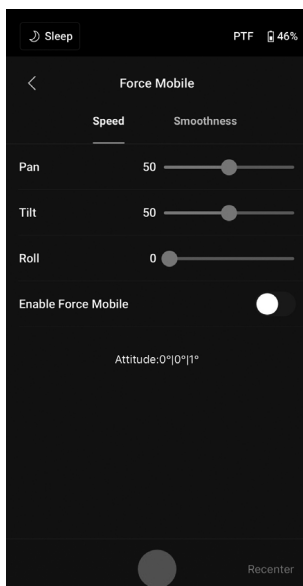
## Virtual Joystick



Use the virtual joystick in the app to control the movement of the gimbal and to shoot.

1. Control Bar: control the speed and smoothness of the gimbal by adjusting the control bar. Speed allows users to adjust the remote-controlled rotational speed. Smoothness allows users to adjust the sensitivity of the gimbal. The lower the smoothing value, the more sensitive the movement of the gimbal.
2. Roll Stick: control the roll axis movement of the gimbal using the virtual joystick.
3. Pan/Tilt Stick: control the pan and tilt axis movement of the gimbal using the virtual joystick.
4. Recenter: tap to recenter the gimbal.
5. Shoot/Record Button: tap to take photos or record videos.
6. Photo/Video Toggle: tap to switch between photo and video modes. Make sure the mode is the same as the settings on the camera.

## Force Mobile



Force Mobile requires the phone holder and a mobile phone mounted on a tripod or handlebar vertically. After enabling this feature in the Ronin app, the gimbal movement can be controlled by tilting and rotating your mobile phone.

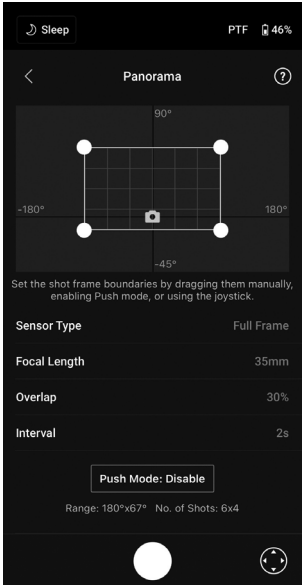
Speed determines the relationship between the rotational speed and angle. When the speed is set to 50, the angle of rotation for the gimbal and mobile phone is 1-to-1. The gimbal will move at an identical angle to the mobile phone. When the speed is set to less than 50, the gimbal will rotate slower than the movement of the phone. When the max speed is set higher to a higher value than 50, the rotation of the gimbal is faster than the mobile phone.

Smoothness allows users to control the sensitivity of the gimbal. The lower the smoothness value, the more sensitive the movement of the gimbal.

Recenter: tap to recenter the gimbal.

Shutter/Record Button: tap to take photos or record videos.

Panorama



Panorama allows users to capture a series of interconnecting still images with precise control based on the sensor type, lens focal length, overlap, and interval.

Make sure you have connected the camera and gimbal using the corresponding camera control cable before using Panorama (Bluetooth connection is not supported).

Overlap: determines the overlap ratio of every photo when generating a panorama.

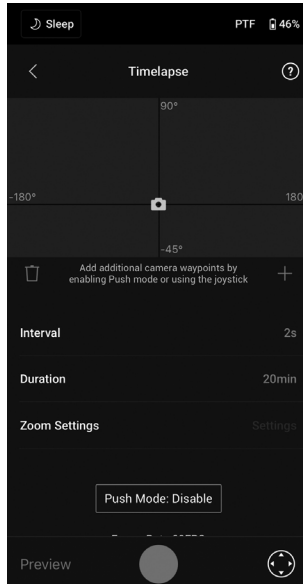
The interval time between shooting photos should be set to one second more than the shutter time to avoid blurred footage when using a long exposure.

After confirming the camera settings, the panorama range can be set by dragging the white dots on the grid map, pushing the gimbal manually, or using the virtual joystick.

The total range covered by the endpoints and the shots required to compose the panorama is displayed above the grid map. The tilt axis range in Panorama is -45° to +90° in order to avoid capturing the gimbal in the shot, while the pan axis allows you to capture a full 360° rotation.

Tap the shutter/record button to begin.

## Timelapse



In Timelapse, DJI RS 3 triggers the camera to capture still images with the set interval time and will automatically stop when completed. The duration for the Timelapse and the frame rate can be set so that DJI RS 3 can calculate the exact number of images required.


By enabling Push mode, users can manually adjust the pan and tilt axes before starting the Timelapse. Users can push DJI RS 3 to alter the camera orientation and adjust the framing. Tap the virtual joystick icon to use the virtual joystick to adjust the camera orientation.

Motionlapse allows users to set up to five waypoints so that the camera moves during the Timelapse.

To adjust the position of a waypoint, adjust the camera to the desired position, and tap the + icon to confirm the waypoint. You can also use the virtual joystick to control the pan, tilt, and roll axis as well.

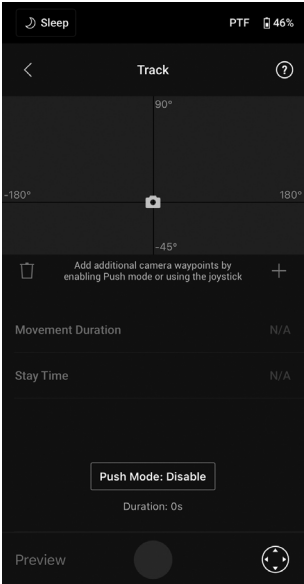
To add another waypoint, move the gimbal to the next waypoint, and tap the + icon above the grid map. Afterwards, to delete a waypoint, select the waypoint and tap the trash icon. After setting up the waypoints, you can either tap Preview to make sure the Motionlapse includes everything or tap the shutter/record button to start shooting. Make sure the camera and gimbal have been connected using the corresponding camera control cable.

---

 Zoom control is not supported while using the DJI Focus Motor (2022) during Timelapse.

---

Track



Track is designed to capture video with up to 10 waypoints. Users need to select the waypoint manually by moving the gimbal or using the virtual joystick. The duration parameter below the grid map indicates how much time it will take for the gimbal to travel from one waypoint to the next. The stay time indicates how long the gimbal will remain steady at the waypoint before moving to the next waypoint.

 DO NOT press the shutter button of the camera while using Track.



Gaming Controller

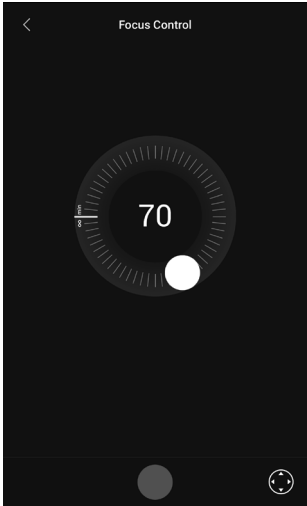


PS4 DualShock and Xbox controllers can be used to control the gimbal and camera. After connecting the controller to the mobile device and gimbal, users can control gimbal movements, focus, and zoom, and can record videos, recenter gimbal, and capture photos.

The speed and smoothness of the control sticks can be adjusted. Set the focus value within 10 on the camera settings for optimal performance. iOS 13 or higher, Android 9.0 or higher, and Ronin app v1.4.0 or higher are required.

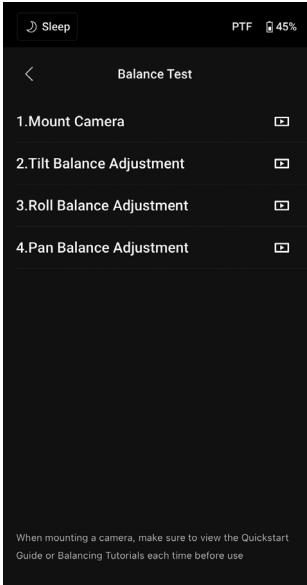
Tap How to Use to learn more about the gaming controller.

Focus Control



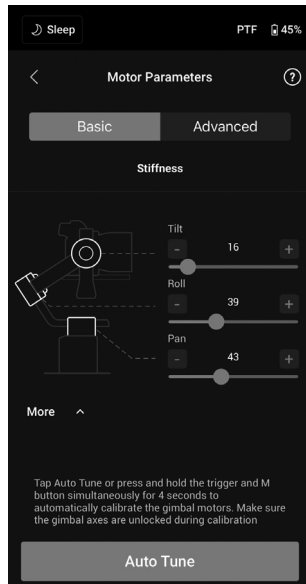
Drag the white dot to control the focus after mounting the DJI RS focus motor. 0-100 indicates the A and B endpoints of the focus motor. Tap the record button to start/stop recording. Tap the Virtual Joystick icon to control the gimbal movements.

Balance Adjustment



Watch the tutorial videos on this page.

## Motor Parameters

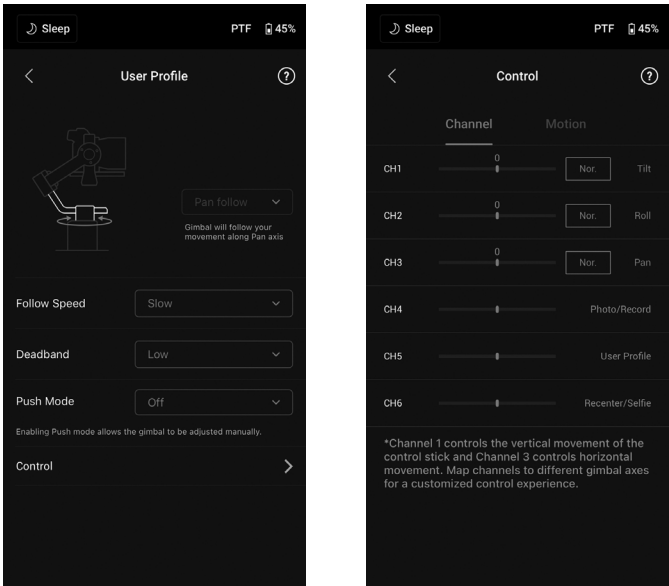


There are Basic and Advanced menus. Stiffness can be displayed and adjusted in the Basic menu. In addition, Strength can be adjusted in the Advanced menu (do not adjust if not necessary).

Tap Auto Tune and DJI RS 3 automatically calculates the result based on the weight of the gimbal setup.

After auto tune, you can see detailed motor diagnostics at the bottom of the screen. If the gimbal is properly balanced, the power value of the motors should be in the range of  $\pm 5$ . If power consumption on a particular axis constantly goes beyond that range, check the mechanical balance of the gimbal.

User Profile



Gimbal mode, follow speed, deadband, push mode and joystick control can be set in this page. Deadband determines how much movement the gimbal tolerates prior to translating the pan, tilt, and roll movement of the camera.

Control Settings

Channels

The channel indicator provides feedback when configuring remote operation. Pan, tilt, and roll channels can be reassigned and each axis can also be inverted. Normal means the direction of movement is the same as the joystick. Inverted means the direction of movement is the opposite of the joystick.

When using the joystick, you can only control CH1 and CH3, which is mapped to tilt and pan axes by default. You can customize channel mapping by tapping on the name of the axis on the right of the screen.

Motion

You can set the joystick control by adjusting deadband, max speed, smoothing, and endpoints for each axis. There are three default profiles for each settings.

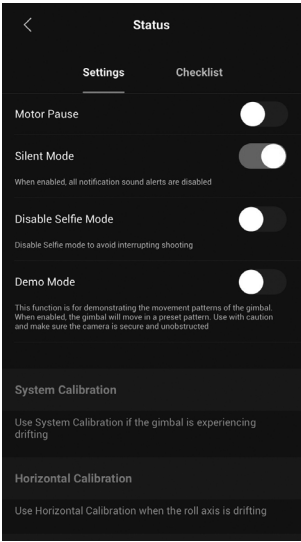
Deadband: when the deadband value increases, more stick movement will be required to translate into the actual movement of the gimbal.

Max Speed: allows the remote-controlled rotational speed to be adjusted.

Smoothness: allows you to control the sensitivity of the gimbal.

Endpoint: limits the rotational range of the gimbal by setting the endpoints. The pan axis has a slip-ring, enabling DJI RS 3 to rotate continuously when the endpoints are set to 180°. On the tilt axis, you can set up the endpoints according to your requirements. Some longer lenses may hit the gimbal frame. Set the endpoint angle to prevent such cases.

Status



Settings

Use more features such as Motor Pause, Silent Mode, System Calibration, Horizontal Calibration, and Restore Gimbal Setup.

Checklist

Displays the connection status of the Bluetooth and camera. When the gimbal status is abnormal, the status information is displayed here.

Image Transmission

With the DJI Ronin Image Transmitter mounted, tap Connect to RavenEye on the home screen of the Ronin app to use the image transmission feature. Refer to the DJI Ronin Image Transmitter User Guide for details.

# BG21 Grip and Built-In Battery

The BG21 grip is for handheld use. The built-in battery within the grip has a capacity of 3000 mAh and the maximum runtime is 12 hours.

## Safety Guidelines

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

**⚠ WARNING** Procedures, which if not properly followed, create the probability of property damage, collateral damage, and serious injury OR create a high probability of superficial injury.

**NOTICE** Procedures, which if not properly followed, create a possibility of physical property damage AND a little or no possibility of injury.



### WARNING

Read the user manual to become familiar with the features of this product before operating. Failure to operate the product correctly can result in damage to the product, personal property, and cause serious injury. This is a sophisticated product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or other property.

This product is not intended for use by children without direct adult supervision. Do not use with incompatible components or alter this product in any way outside of the documents provided by SZ DJI TECHNOLOGY CO.,LTD. These Safety Guidelines contain instructions for safety, operation and maintenance. It is essential to read and follow all of the instructions and warnings in the user manual, prior to assembly, setup or use, in order to operate the product correctly and avoid damage or serious injury.

To avoid fire, serious injury, and property damage, observe the following safety guidelines when using, charging, or storing the grip.

### ⚠ WARNING

## Grip Use

1. DO NOT allow the grip to come into contact with any kind of liquid. DO NOT leave the grip out in the rain or near a source of moisture. DO NOT drop the grip into water. If the inside of the battery comes into contact with water, chemical decomposition may occur, potentially resulting in the battery catching on fire, and may even lead to an explosion.
2. If the grip falls into water by accident, put it in a safe and open area immediately. Maintain a safe distance from the grip until it is completely dry. DO NOT use the grip again, and dispose of the grip properly as described in the Grip Disposal section.
3. Put out any fire using water, sand, fire blanket, or a dry powder fire extinguisher.
4. DO NOT use non-DJI batteries. Go to [www.dji.com](http://www.dji.com) to purchase new batteries. DJI takes no responsibility for any damage caused by non-DJI batteries.
5. DO NOT use or charge a swollen, leaky, or damaged grip. If the grip is abnormal, contact DJI or a DJI authorized dealer for further assistance.
6. The grip should be used in temperatures from -20° to 45° C (-4° to 113° F). Use of the grip in

environments above 50° C (122° F) can lead to a fire or explosion. Use of grip below -10° C (14° F) can lead to permanent damage.

7. DO NOT use the grip in strong electrostatic or electromagnetic environments. Otherwise, the battery control board may malfunction.
8. DO NOT disassemble or pierce the grip in any way or the battery may leak, ignite, or explode.
9. DO NOT drop or strike batteries. DO NOT place heavy objects on the grip.
10. Electrolytes in the battery are highly corrosive. If any electrolytes make contact with your skin or eyes, immediately wash the affected area with fresh running water for at least 15 minutes, and then see a doctor immediately.
11. DO NOT use the grip if dropped.
12. DO NOT heat batteries. DO NOT put the grip in a microwave oven or in a pressurized container.
13. DO NOT manually short-circuit the grip.
14. Clean grip terminals with a clean, dry cloth.

### Grip Charging

1. DO NOT leave the grip unattended during charging. DO NOT charge the grip near flammable materials or on flammable surfaces such as carpet or wood.
2. Charging the grip outside of the temperature range of 5° to 40° C (41° to 104° F) may lead to leakage, overheating, or battery damage. The ideal charging temperature is 22° to 28° C (72° to 82° F).

### Grip Storage

1. Keep the grip out of the reach of children and animals.
2. If the grip will be stored for an extended period, charge the grip until the battery level reaches between 30% and 50%.
3. DO NOT leave the grip near heat sources such as a furnace or heater. DO NOT leave the grip inside of a vehicle on hot days. The ideal storage temperature is 22° to 28° C (72° to 82° F).
4. Keep the grip dry.

### Grip Maintenance

1. DO NOT use the grip when the temperature is too high or too low.
2. DO NOT store the battery in environments with a temperature higher than 45° C (113° F) or lower than 0° C (32° F).

### Travel Notice

1. Before carrying the grip on an airline flight, it must first be discharged until the battery level is lower than 30%. Only discharge the grip in a fireproof location and store the grip in a ventilated location.
2. Keep the grip away from metal objects such as glasses, watches, jewelry, and hairpins.
3. DO NOT transport a damaged grip or a grip with battery level higher than 30%.

### Grip Disposal

Dispose of the grip in specific recycling boxes only after a complete discharge. DO NOT place the grip in regular trash containers. Strictly follow your local regulations regarding the disposal and recycling of batteries.

**NOTICE**

### Grip Use

1. Make sure the grip is fully charged before use.
2. If a low-battery warning appears, charge the grip as soon as possible.

### Grip Charging

1. The grip is designed to stop charging when it is full. It is good practice, however, to monitor the charging progress and disconnect the grip when fully charged.

### Grip Storage

1. Discharge the grip to 40%-65% if it will not be used for 10 days or more. This can greatly extend the battery life.
2. If the grip is stored for an extended period and the battery is depleted, the grip will enter sleep mode. Recharge the grip to exit sleep mode.
3. Remove the grip from the gimbal when stored for an extended period.

### Grip Maintenance

1. Battery life may be reduced if not used for an extended period.
2. Discharge and charge the grip completely once every three months to keep it in good condition.

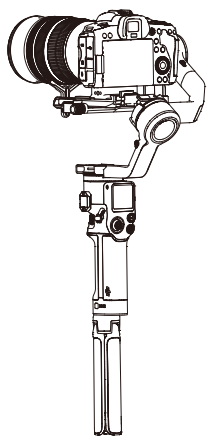
### Grip Disposal

1. If the grip is disabled and the battery cannot be fully discharged, contact a professional battery disposal or recycling agent for further assistance.
2. Dispose of the grip immediately if it cannot be powered on after over-discharging.

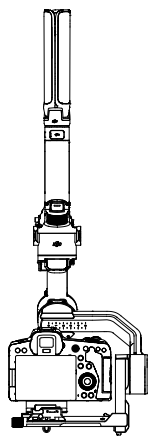


## Operation Modes

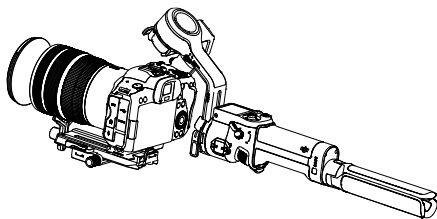
There are four operation modes for the DJI RS 3: Upright, Underslung, Flashlight, and Briefcase.



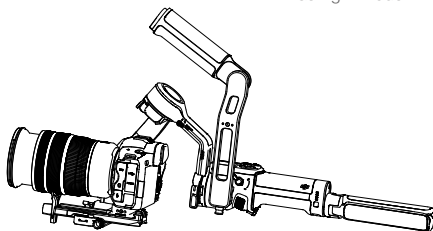
Upright Mode



Underslung Mode



Flashlight Mode



Briefcase Mode

## Maintenance

DJI RS 3 is not waterproof. Make sure to protect it from dust and water during use. After use, it is recommended to wipe DJI RS 3 with a soft dry cloth. DO NOT spray any cleaning liquids onto DJI RS 3.

# Specifications

Peripheral	Accessory Port	NATO Ports 1/4"-20 Mounting Hole Cold Shoe Ronin Image Transmission Port (USB-C) RSS Camera Control Port (USB-C) Focus Motor Port (USB-C)
	Battery	Model: BHX711-3000-7.2V Type: 2S Capacity: 3000 mAh Energy: 21 Wh Max. Runtime: 12 hours (measured with the equipment in a level and stationary state, the gimbal balanced, three axes in an active state, and the battery only powering the gimbal) Charging Time: Approx. 2.5 hours when using 18W quick charging (supports PD protocol) Suggested Charging Temperature: 5° to 40° C (41° to 104° F)
	Connections	Bluetooth 5.0 Charging Port (USB-C)
	Ronin App Requirements	iOS 11.0 or above Android 7.0 or above
	Languages Supported by the Touchscreen	English, Simplified Chinese, Traditional Chinese, German, French, Korean, Japanese, Spanish, Portuguese (Brazil), Russian, Thai
Working Performance	Tested Payload	3 kg (6.6 lbs)
	Maximum Controlled Rotation Speed	Pan: 360°/s Tilt: 360°/s Roll: 360°/s
	Mechanical Range	Pan axis: 360° continuous rotation Roll axis: -95° to +240° Tilt axis: -112° to +214°
Mechanical & Electrical Properties	Operating Frequency	2.4000-2.4835 GHz
	Bluetooth Transmitter Power	<8 dBm
	Operating Temperature	-20° to 45° C (-4° to 113° F)
	Weight	Gimbal: Approx. 990 g (2.18 lbs) Grip: Approx. 200 g (0.44 lbs) Extended Grip/Tripod (Plastic): Approx. 183 g (0.4 lbs) Upper and Lower Quick-Release Plates: Approx. 107 g (0.23 lbs)
	Dimensions	Folded: 254×230×68 mm (L×W×H, excluding camera, grip, and the Extended Grip/Tripod) Unfolded: 364×187×170 mm (L×W×H, height includes the grip and excludes the Extended Grip/Tripod)

WE ARE HERE FOR YOU



Contact

**DJI SUPPORT**

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Download the latest version from



**[www.dji.com/rs-3/downloads](http://www.dji.com/rs-3/downloads)**

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