MATRICE 200

Quick Start Guide
快速入门指南
快速入門指南
クイックスタートガイド
퀵 스타트 가이드
Kurzanleitung
Guía de inicio rápido
Guide de démarrage rapide
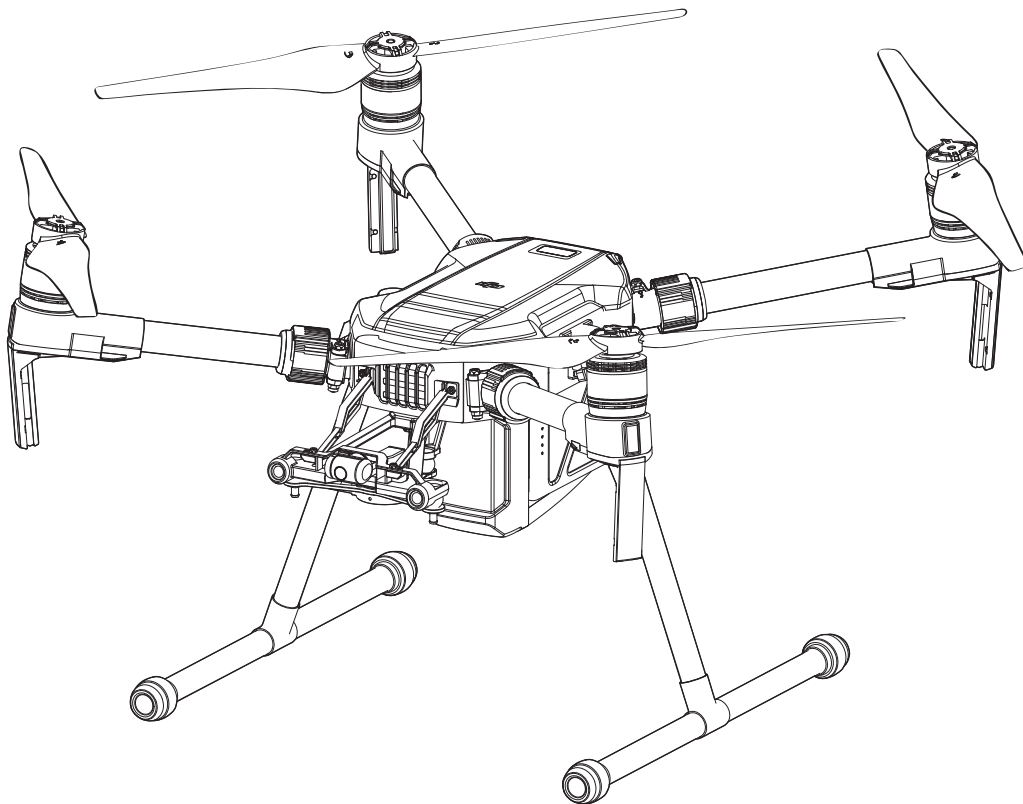Guida di avvio rapido
Snelstartgids
Guia de início rápido
Краткое руководство пользователя

V1.0

DJI

Contents

Matrice 200

EN

The DJI™ MATRICE™ 200 is a powerful system with world class agility and speed, two barometers and IMU modules each for maximum reliability, and new, smart flight features that make capturing complex shots easy. The aircraft's visual sensors enables enhanced hovering precision even when flying indoors or in environments where GNSS is unavailable. The vehicle's new airframe design improves the Ingress Protection Rating to IP43 in accordance with the global IEC 60529 standard.

The Matrice 200's mechanical design, along with quick-release landing gear and mounted folding arms, makes it easy to transport, store, and prepare for flight. The Intelligent Flight Battery features upgraded battery cells and an advanced power management system. The drone provides up to 27-minutes of flight with standard batteries and 38-minutes with optional batteries without payload*.

The Matrice 200 is compatible with many of DJI's DGC2.0 connector gimbals.* This manual uses the DJI ZENMUSE™ Z30 as an example to demonstrate the Matrice 200's remarkable functions.
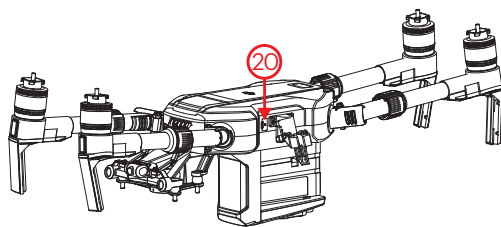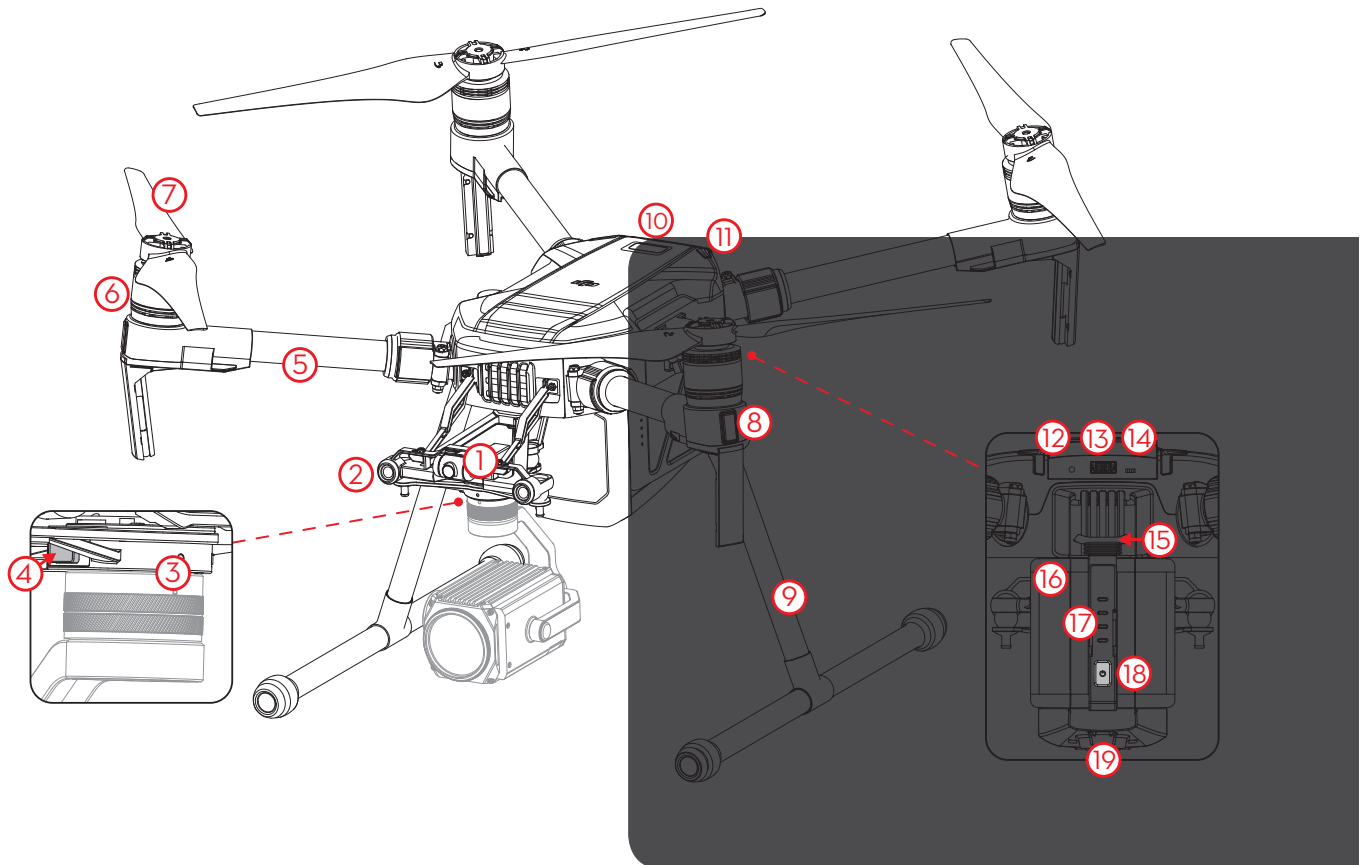
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1. FPV Camera	11. Aircraft Status Indicator
2. Forward Vision System	12. RC/Aircraft Link Button and Indicator
3. DJI Gimbal Connector V2.0 (DGC2.0)	13. USB Port
4. Gimbal and Camera Detach Button	14. USB Mode Switch
5. Frame Arms	15. Battery Remove Button
6. Motors	16. Intelligent Flight Batteries
7. Propellers	17. Battery Level Indicators
8. ESC LEDs	18. Power Button
9. Landing Gear	19. Downward Vision System
10. Upward Infrared Sensor	20. Micro SD Card Slot

* Maximum run-time is tested in a lab environment. Performance may vary depending on local conditions.
  Gimbal and optional batteries can be purchased separately from the official DJI Online Store.
  DO NOT disassemble the aircraft case, otherwise, it will not be covered by the warranty.

Remote Controller

The remote controller features DJI's LIGHTBRIDGE™ technology for a maximum transmission distance of up to 4.3 mi (7km).*
While flying the aircraft, you have a live HD view directly within the DJI GO™ 4 app on your paired device for a precise and responsive flying experience. Dual frequency support makes the HD video downlink more stable. In Dual Remote Controllers Mode, each of the two remote controllers controls the aircraft and camera separately. Users can even operate these mechanisms up to 328 feet (100 m) apart.*

The maximum run-time of the remote controller's LiPo battery is approx. four hours.*

EN

1. Power Button
2. Return-to-Home (RTH) Button
3. Control Sticks
4. Status LED
5. Battery Level LEDs
6. Power Port
7. Mobile Device Holder
8. Antennas
9. Handle Bar

10. Control Dial (Gimbal/FPV)
11. Camera Settings Dial
12. Record Button
13. Flight Mode Switch
14. Shutter Button
15. Pause Button
16. Micro USB Port
17. CAN Bus (Extended Port)
18. HDMI A Port (for Video Output)
19. USB Port (for Mobile Device Connection)
20. C1 Button
21. C2 Button

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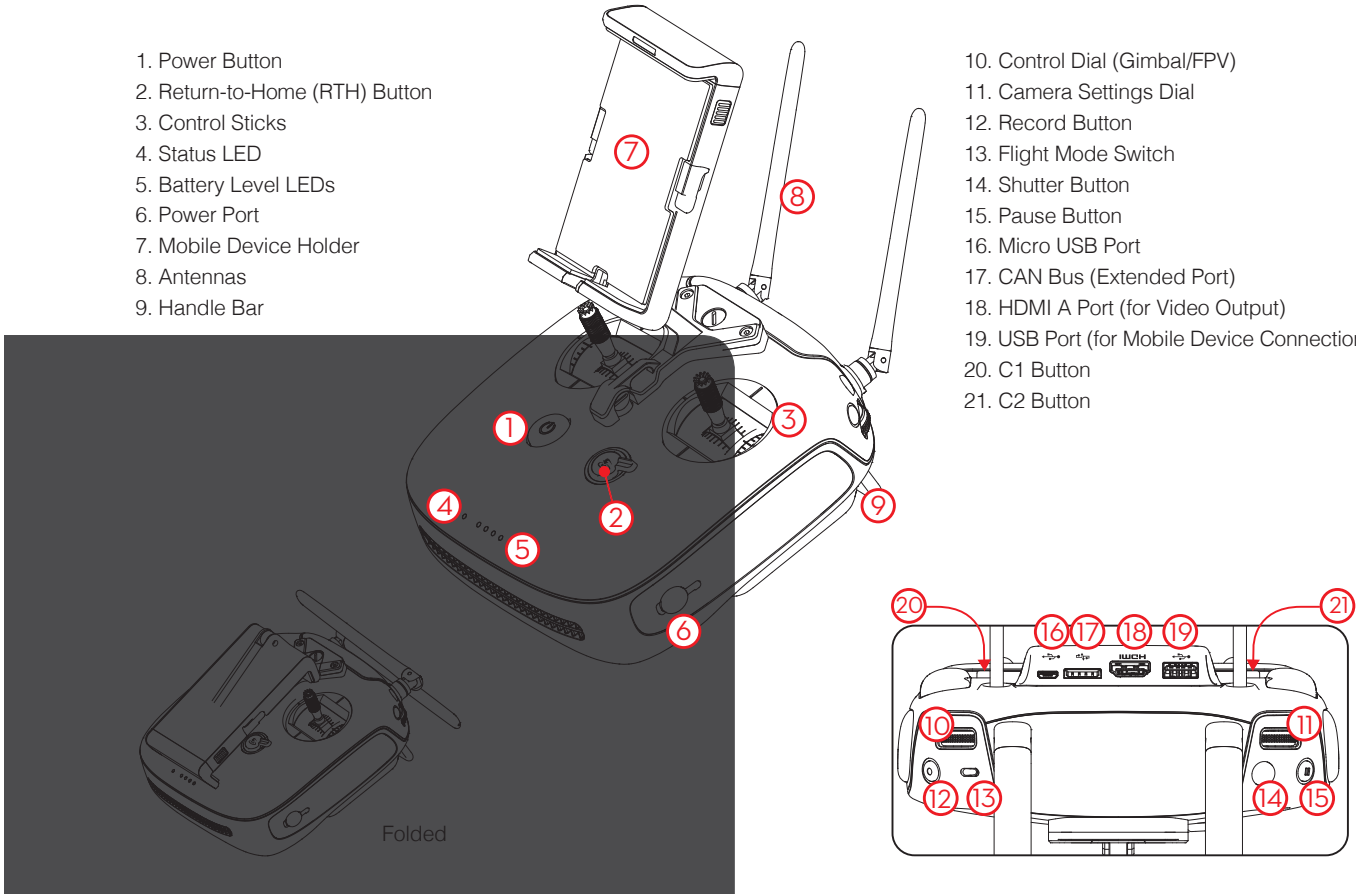
Stick mode is set to Mode 2 by default (left hand throttle). The left stick controls the aircraft's elevation and heading. The right stick controls the aircraft's forward, backward, and lateral movements. The gimbal dial controls tilting and panning of the camera. To adjust the FPV camera, press and hold the C2 Button and rotate the control dial.

Left Stick	Right Stick	Camera and Gimbal	FPV Camera

UP
Down
Turn Left
Turn Right

Forward
Backward
Left
Right
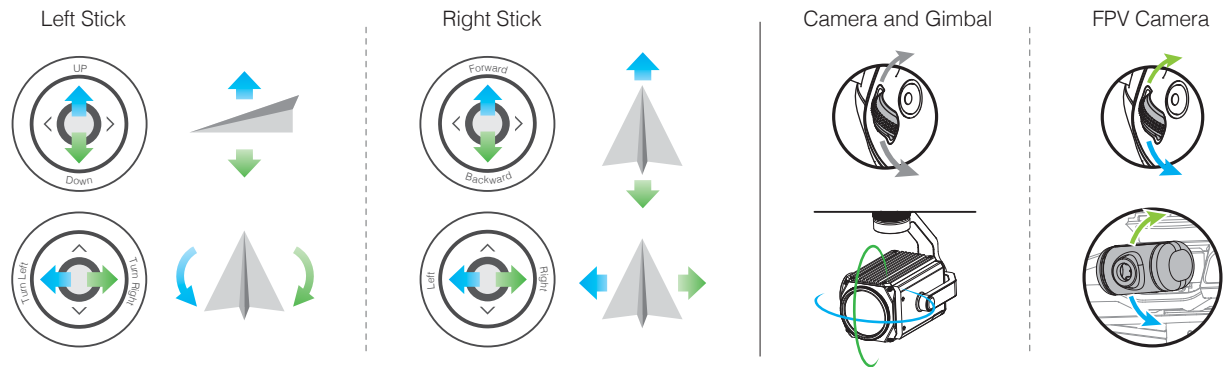
⚠ • For more information about how to connect and use the remote controller, please refer to the user manual.
• You can change the stick mode in the DJI GO 4 app.

* The remote controller can reach its maximum transmission distance (FCC) in a wide open area with no Electro-Magnetic interference, and at an altitude of about 400 feet (120 meters).
For more information about the Dual Remote Controllers Mode, please refer to the user manual.
The maximum run-time is tested without supplying power to a smart device.
To comply with local regulations, the operation frequency of 5.8GHz is not available in some countries.

Using Matrice 200

1. Download the DJI Assistant 2 and DJI GO 4 App

Download and install DJI ASSISTANT™ 2 on your computer via the website link below:
http://www.dji.com/matrice-200-series

Search 'DJI GO 4' in the App Store or Google Play, and download the app to your mobile device.

First-time activation requires your DJI account and internet connection.

- DJI GO 4 app supports iOS 9 (or later) or Android 4.4 (or later).
- The DJI Pilot built-in app is only available in DJI CrystalSky™.
- DJI Assistant 2 supports Windows 7 (or later) or OS X 10.11 (or later).
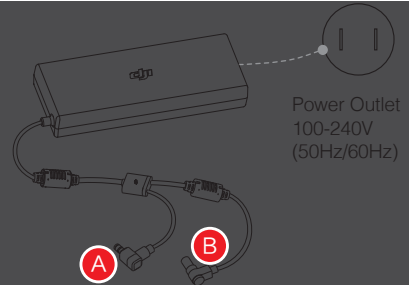
DJI GO 4 App

2. Charge the Batteries

- Press the release button and open the corresponding charging port cover.
- Insert the Intelligent Flight Battery into the charging port to begin charging.
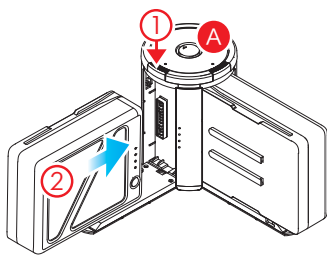
Charging Time: 1.5 hours*
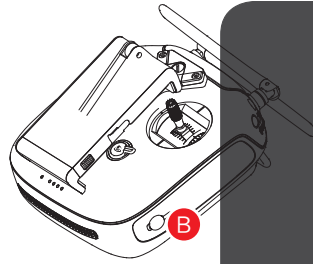
Charging Time: 3 hours*

Power Outlet
100-240V
(50Hz/60Hz)

* Provided charger

- The Intelligent Flight Battery must be fully charged before using it for the first time. Be sure to press the release button on the top of the Charging Hub when removing the fully charged battery.
- When charging is complete, the LED lights on the Intelligent Flight Battery will turn off, and the LED on the Charging Hub will show green.
- Power off the remote controller before charging. When charging is complete, the LED lights on the remote controller will turn off.
- The Charging Hub will sound a signal when the battery has been fully charged. The sound can be turned on or off by toggling the switch at the bottom of the hub.
- Install the battery to the aircraft and power on. Once the battery temperature is lower than 15°C, it will auto heat to maintain a temperature between 15-20°C.
- Pairing batteries is recommended. This can be done inside the DJI GO 4 app. Ensure each battery pair is charged and discharged simultaneously to prolong their service life and for a better flight experience.

3. Prepare the Remote Controller

Unfold the mobile device holder and the antennas.
Press the power button once to check the battery level.
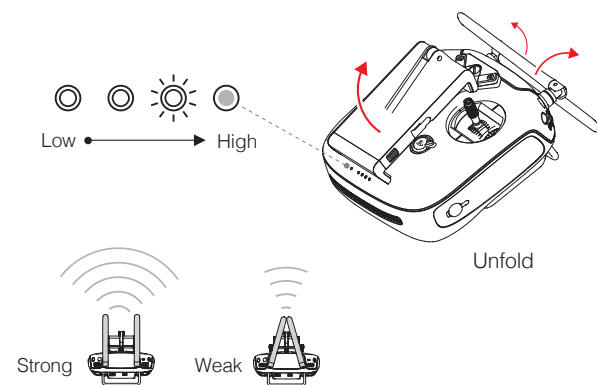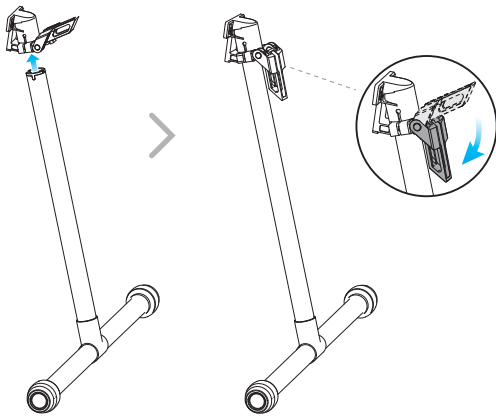
Press the button to release the clamp.
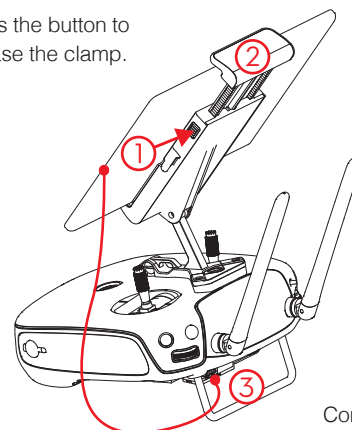
Place your mobile device and adjust the clamp to secure.

Low ●————→ High

Unfold

Strong   Weak
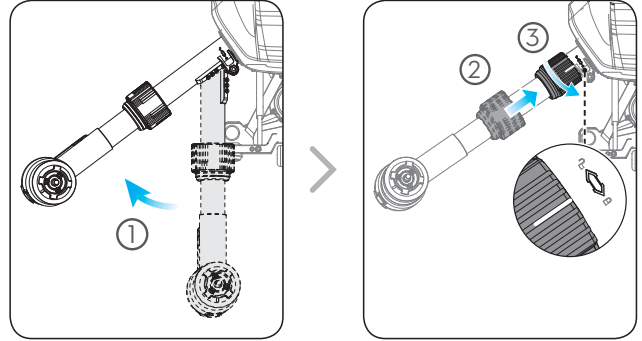
Connect your mobile device with a USB cable.

4. Prepare the Aircraft
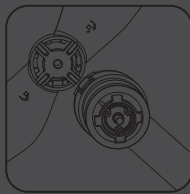
Mounting the Landing Gear
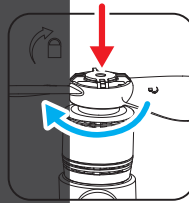

Unfolding the Aircraft

Unfold the frame arm, slide the arm lock to the end of the frame arm, and rotate it about 90° until the silver line lies within the range of the ⟨⟩ icon.
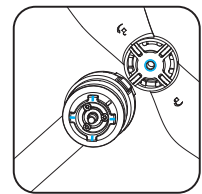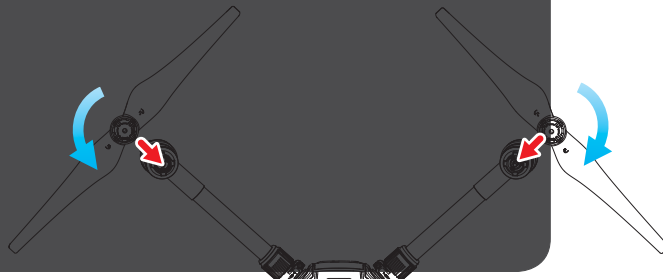

Mounting the Propellers

Propellers without silver rings should be installed on motors without marks.

Press the propeller down onto the mounting plate and rotate in the lock direction 🔓 until secure.
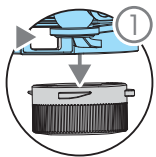
Propellers with silver rings should be installed on motors with the same color marks.

⚠ Check that the propellers are secure before each flight.

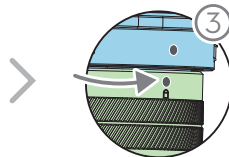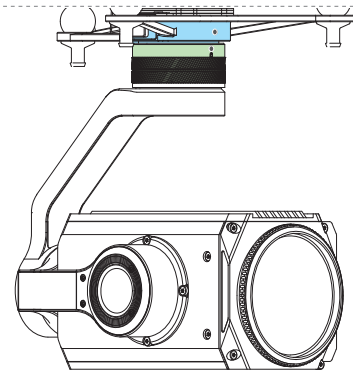## Mounting the Gimbal and Camera

Press the gimbal detach button to remove the cover.
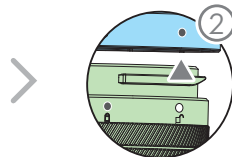
Align the white and red dots and insert the gimbal.

Rotate the gimbal lock to the locked position.

⚠ Make sure to press down the gimbal detach button when rotating the gimbal lock to remove the gimbal and camera. The gimbal lock should be fully rotated when removing the gimbal for the next installation.
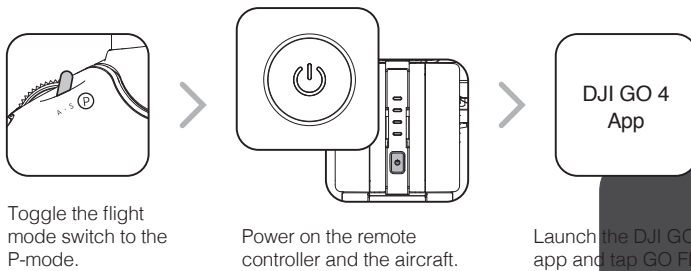
Mounting the Intelligent Flight Battery

Insert the battery pair.
Press the power button once to check the battery level.
Press once, again and hold to turn on/off.

A B

High

Low
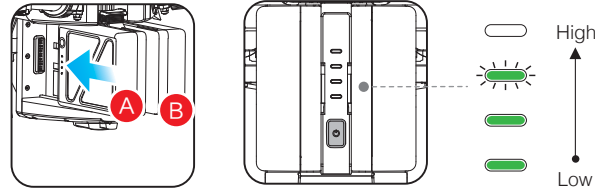
⚠ • Only use battery slot B when using one battery to supply power.
• Make sure to press the battery remove button when removing the battery.

5. Flight

Toggle the flight mode switch to the P-mode.

Power on the remote controller and the aircraft.

DJI GO 4 App

Launch the DJI GO 4 app and tap GO FLY.

Ready to Go (GPS)

Before taking off, ensure that the Aircraft Status Bar in the DJI GO 4 app indicates 'Ready to Go (GPS)' or 'Ready to Go (Vision)' if flying indoors.

In the DJI GO 4 App

Auto Takeoff

Auto Landing

Return-to-Home (RTH)

Gimbal Working Modes

More Intelligent Flight Modes

⚠ • Watch the tutorial in the DJI GO 4 app or on the official DJI website to learn more.
• Always set an appropriate RTH altitude before takeoff. Refer to the Disclaimer and Safety Guidelines for more details.
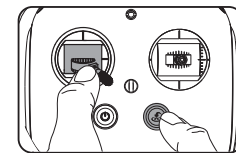
Manual Takeoff

OR

Combination Stick Command to start/stop the motors
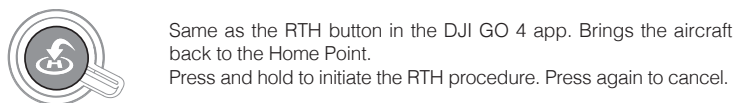
Left stick up (slowly) to take off
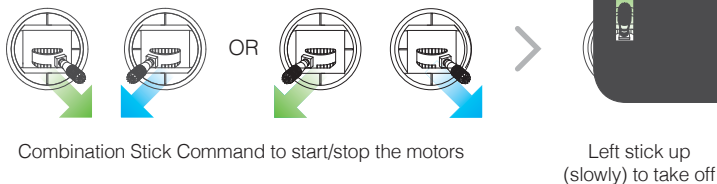
Manual Landing

Pull left stick down (slowly) until you touch the ground. Hold for a few seconds to stop the motors.

⚠ Stop motors mid-flight: Press the RTH button while simultaneously pulling the left stick to the bottom inside corner and hold for three seconds. Only stop motors mid-flight in emergency situations when doing so can reduce the risk of damage or injury.

Return-to-Home (RC)

Same as the RTH button in the DJI GO 4 app. Brings the aircraft back to the Home Point.
Press and hold to initiate the RTH procedure. Press again to cancel.

⚠ • Rotating propellers can be dangerous. DO NOT start the motors in narrow spaces or when there are people nearby.
• Always keep your hands on the remote controller so long as the motor is still spinning.
• After landing, power off the aircraft before turning off the remote controller.

It is important to understand basic flight guidelines for the safety of both you and those around you.
Refer to the Disclaimer and Safety Guidelines for more information.

No Fly Zones

Learn more:
http://flysafe.dji.com/no-fly

Specifications

- **Aircraft (M200)**

Dimensions	Unfolded, 887×880×378 mm, Folded, 716×220×236 mm
Weight	Approx. 3.8 kg (with two standard batteries), Approx. 4.53 kg (with two optional batteries)
Diagonal Wheelbase	643 mm
Max Takeoff Weight	6.14 kg
Max Payload	2.34 kg (with two standard batteries), 1.61 kg (with two optional batteries)
Hovering Accuracy (P-mode with GPS)	Vertical: ±1.64 feet (0.5 m) or ±0.33 feet (0.1 m, Downward Vision System enabled)
	Horizontal: ±4.92 feet (1.5 m) or ±0.98 feet (0.3 m, Downward Vision System enabled)
Max Angular Velocity	Pitch: 300°/s, Yaw: 150°/s
Max Pitch Angle	35° (25° if both P-mode and Forward Vision System are enabled)
Max Ascent Speed	16.4 ft/s (5 m/s)
Max Descent Speed (vertical)	9.8 ft/s (3 m/s)
Max Speed	P-mode: 61 kph (17 m/s); S-mode/A-mode: 83 kph (23 m/s)
Max Service Ceiling Above Sea Level	9842 feet (3000 m, with 1760S propellers)
Max Wind Resistance	32.8 ft/s (10 m/s)
Max Flight Time (with standard batteries)	27 min (no payload), 13 min (takeoff weight: 6.14 kg)
Max Flight Time (with optional batteries)	38 min (no payload), 24 min (takeoff weight: 6.14 kg)
Supported DJI Gimbals	Zenmuse X4S/X5S/XT/Z30
Supported Gimbal Mounting	Single Gimbal, Downward
Ingress Protection Rating	IP43
GNSS	GPS+GLONASS
Operating Temperature	-4° to 113° F (-20° to 45° C)

- **Remote Controller**

Operating Frequency	2406.5-2476.5MHz;5730-5845MHz
Max Transmitting Distance	2.4 GHz: 4.3 miles (7 km, FCC); 2.2 miles (3.5 km, CE); 2.5 miles (4 km, SRRC)
(unobstructed, free of interference)	5.8 GHz: 4.3 miles (7 km, FCC); 1.2 miles (2 km, CE); 3.1 miles (5 km, SRRC)
EIRP	2.4 GHz: 26 dBm (FCC); 17 dBm (CE); 20 dBm (SRRC)
	5.8 GHz; 14 dBm (CE); 20 dBm (SRRC)
Built-in Battery	6000 mAh 2S LiPo
Output Power	9 W (Without supplying power to smart device)
USB Power Supply	iOS: 1 A ⎓ 5.2 V (max); Android: 1.5 A ⎓ 5.2 V (max)
Operating Temperature	-4° to 104° F (-20° to 40° C)

- **Downward Vision System**

Velocity Range	<32.8 ft/s (10 m/s) at the height of 6.56 feet (2 m)
Altitude Range	<32.8 feet (10 m)
Operating Range	<32.8 feet (10 m)
Operating Environment	Surfaces with clear patterns and adequate lighting (> 15 lux)
Ultrasonic Sensor Operating Range	0.33-16.4 feet (10-500 cm)
Ultrasonic Sensor Operating Environment	Non-absorbing material, rigid surface (thick indoor carpeting will reduce performance)

- **Forward Vision System**

Obstacle Sensing Range	2.3-98.4 feet (0.7-30 m)
FOV	Horizontal: 60°; Vertical: 54°
Operating Environment	Surfaces with clear patterns and adequate lighting (> 15 lux)

- **Upward Infrared Sensing System**

Obstacle Sensing Range	0-16.4 feet (0-5 m)
FOV	±5°
Operating Environment	Large, diffuse and reflective obstacles (reflectivity >10%)

- **Intelligent Flight Battery (Standard, Model: TB50-4280mAh-22.8V)**

Capacity	4280 mAh
Voltage	22.8 V
Battery Type	LiPo 6S
Energy	97.58 Wh
Net Weight (Single one)	Approx. 520 g
Operating Temperature	-4° to 113° F (-20° to 45° C)
Charging Temperature	41° to 104° F (5° to 40° C)
Max Charging Power	180 W

- **Charger (Model: IN2C180)**

Voltage	26.1 V
Rated Power	180 W

- **Charging Hub (Model: IN2CH)**

Input Voltage	26.1 V
Input Current	6.9 A

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

DJI incorporates HDMI™ technology.
The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

Download the latest version from
http://www.dji.com/matrice-200-series

※ This content is subject to change without prior notice.
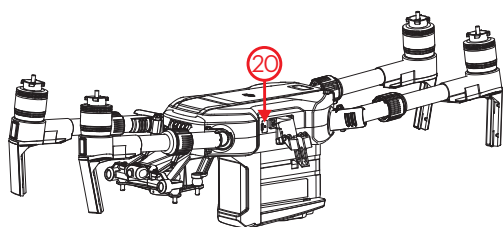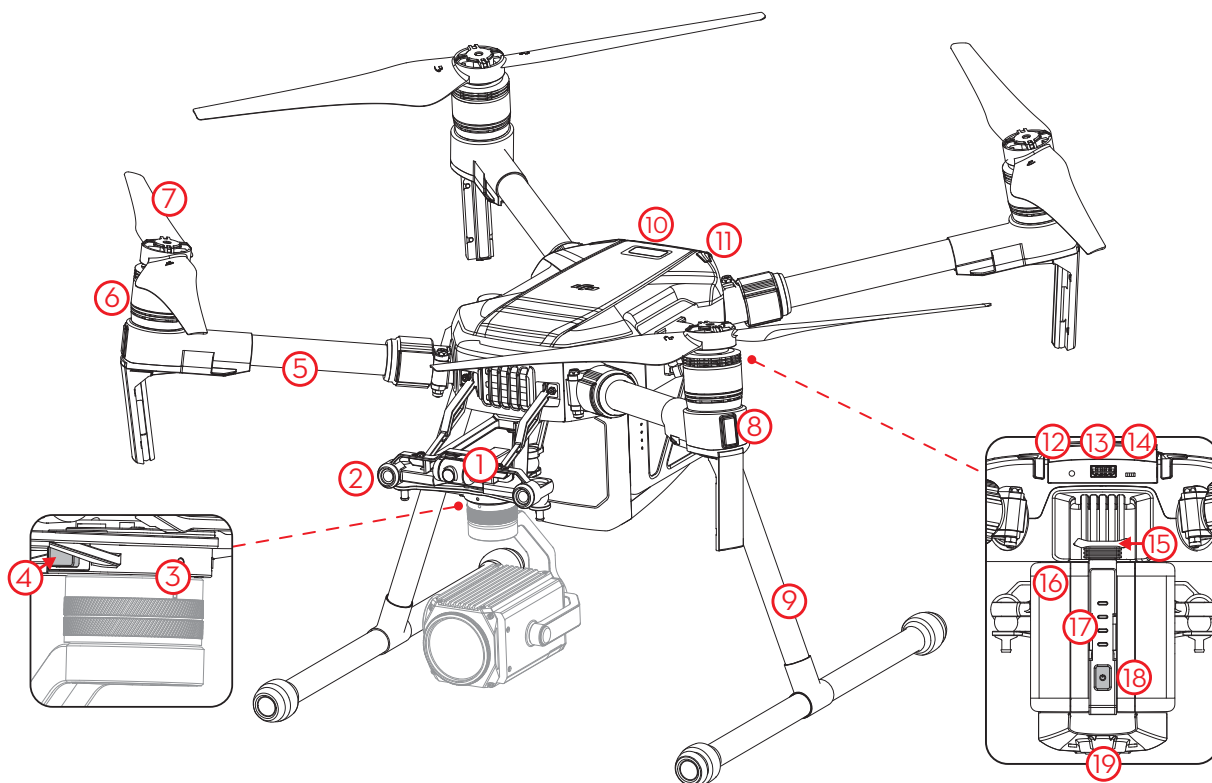
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认识您的 Matrice 200

MATRICE™ 200 集成 DJI™ 先进的飞控系统、下视及前视视觉系统、红外感知系统和 FPV 摄像头，可在室内外稳定悬停、飞行，并具备障碍物感知功能和指点飞行、智能跟随等先进飞行功能。全新的机身设计，在飞行过程中 IP 防护等级可达 IP43（参照 IEC 60529 标准）。快拆式起落架和已预装至中心架的可折叠机臂方便收纳及运输，且有效缩短起飞前的准备时间。双电池系统提升飞行安全系数，空载时，使用标配电池（TB50）飞行时间约 27 分钟，使用大容量电池（TB55）可达 38 分钟 *。

Matrice 200 可适配多款云台接口为 DGC2.0 的云台相机 *。本文档以 DJI ZENMUSE™ Z30 云台相机进行示例。

折叠状态

1. FPV 摄像头	11. 飞行器状态指示灯
2. 前视视觉系统	12. 对频按键 / 对频指示灯
3. 云台接口（DGC2.0 接口）	13. USB 接口
4. 云台相机解锁按钮	14. USB 模式切换开关
5. 机 臂	15. 电池弹出按钮
6. 电 机	16. 智能飞行电池
7. 螺旋桨	17. 电池电量指示灯
8. 电调 LED 指示灯	18. 电池电源按键
9. 起落架	19. 下视视觉系统
10. 顶部红外感知系统	20. Micro SD 卡槽

* 最长飞行时间均为实验环境下（零海拔无风情况下）测得，仅供参考。
 本手册所示例的云台相机和大容量电池需另行购买，请从 DJI 商城了解更多详细信息。
  切勿拆开飞行器机壳，否则产品将不在保修范围内。

认识您的遥控器

Matrice 200 遥控器使用 LIGHTBRIDGE™ 高清图传技术，配合完备的功能按键可在最大 7 千米 * 通信距离内完成飞行器与云台相机的各种操作和配置，并可通过 DJI GO™ 4 App 在移动设备上实时显示高清画面。图传系统拥有 5.8G 和 2.4G 两个通信频率，可以根据环境的干扰情况切换频率。遥控器通过无线信号可实现主从机功能，最大无线通信范围可达 100 米。*

遥控器内置可充电锂电池，单机最长可连续工作 4 小时 *。

1. 电源开关
2. 智能返航按键
3. 摇 杆
4. 遥控器状态指示灯
5. 电池电量指示灯
6. 充电接口
7. 移动设备支架
8. 天 线
9. 提 手

10. 控制拨轮（云台 /FPV）
11. 相机设置转盘
12. 录影按键
13. 飞行模式切换开关
14. 拍照按键
15. 急停按键
16. Micro USB 接口
17. CAN Bus 扩展接口
18. HDMI A 口（视频输出接口）
19. USB 接口（用于连接移动设备）
20. C1 按键
21. C2 按键

折叠状态
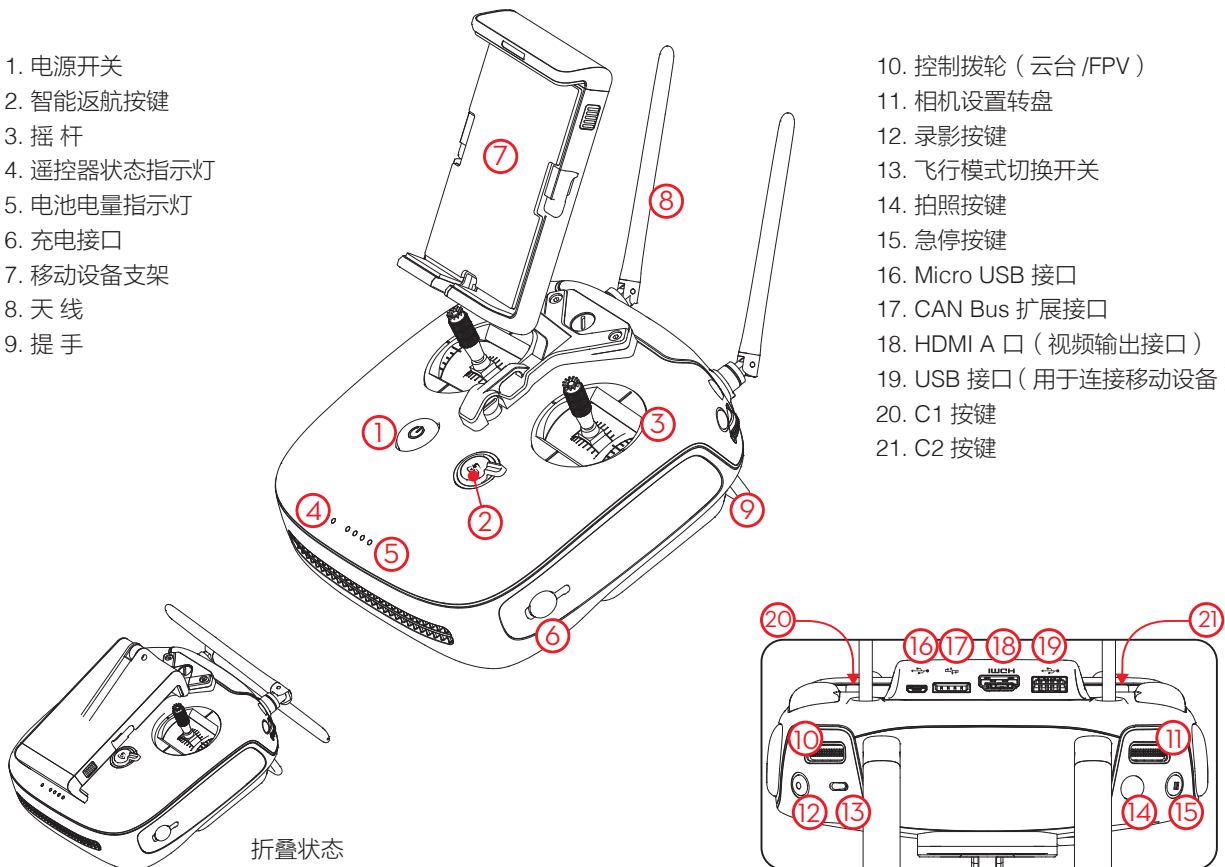
遥控器出厂默认操控方式为"美国手"（左手油门）。左摇杆控制飞行高度与方向，右摇杆控制飞行器的前进、后退以及左右飞行方向。控制拨轮可控制相机的拍摄角度。按住 C2 按键并拨动控制拨轮可控制 FPV 摄像头的拍摄角度。

| 左摇杆 | 右摇杆 | 控制云台相机 | 控制 FPV 摄像头 |

上升 / 下降

左转 / 右转

前 / 后

左 / 右
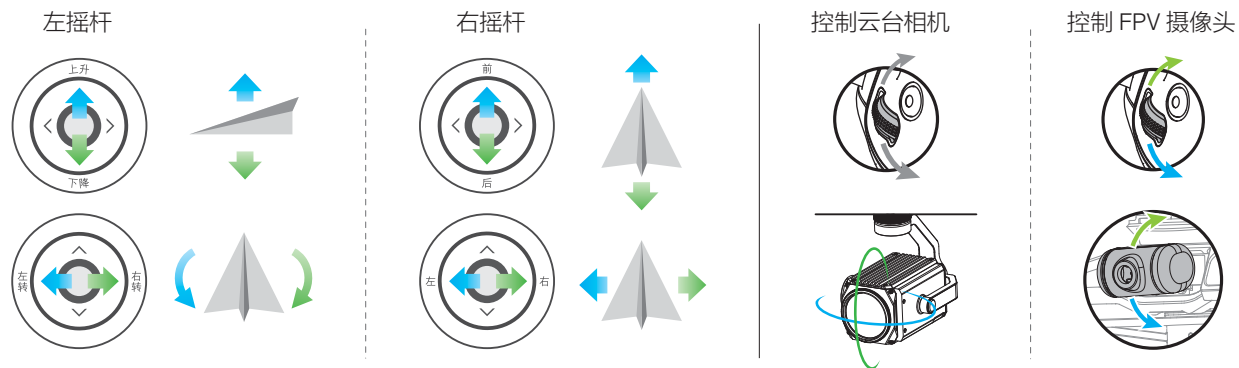
⚠ 更多飞行操作详见用户手册；可以在 DJI GO 4 App 更改遥控器的操控方式。

* 在开阔无遮挡、无电磁干扰的环境飞行，并且飞行高度为 120 米左右，在 FCC 标准下遥控器可以达到最大通信距离。
遥控器主从机功能详细内容请参考用户手册。
遥控器工作时可以为外接移动设备充电。上述最长可工作时间为仅向遥控器供电所测得，仅供参考。
部分国家不支持 5.8GHz 频段，以遵从当地法规。

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1. 下载 DJI Assistant 2 和 DJI GO 4 App

使用计算机在 DJI 官网下载并安装 DJI ASSISTANT™ 2 调参软件。
http://www.dji.com/matrice-200-series

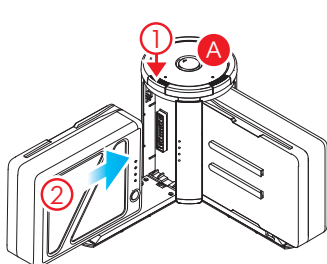使用移动设备在软件商店或扫描二维码下载并安装 DJI GO 4 App。

DJI GO 4 App

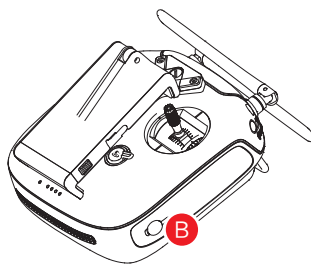⊘ 全新的飞行器需使用 DJI GO 4 App 激活才能使用。激活时请确保移动设备可以接入互联网。

⚠️
- DJI GO 4 App 要求使用 iOS 9.0 及以上系统 或 Android 4.4 及以上系统。
- 如果使用 DJI CrystalSky™ 作为显示设备，可使用其内置的 DJI Pilot App。
- DJI Assistant 2 要求使用 Windows 7 及以上系统或 Mac OS X 10.11 及以上系统。
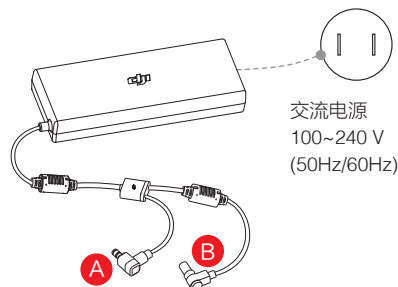
2. 充 电

- 按下充电管家顶部按键，打开充电接口保护盖。
- 对准电池与充电管家的电池导轨，插入电池。

完全充满两块电池约需 1.5 小时 *　　　　完全充满约需 3 小时 *

交流电源
100~240 V
(50Hz/60Hz)

* 使用 DJI 标配充电器。

⚠️
- 首次使用智能飞行电池，请务必充满电。充电完成后，必须按住充电管家顶部按键，才能移除电池。
- 智能飞行电池电量指示灯全部熄灭且充电管家顶部的指示灯绿灯常亮表示电已充满。
- 遥控器在关闭状态下充电时，电量指示灯全部熄灭表示本次充电已完成。
- 充电管家底部开关可用于开启和关闭声音提示。默认开启，智能飞行电池充电完成时会有声音提示。
- 安装电池到飞行器并开启电源之后，一旦电池温度低于 15℃，电池将开启自动加热功能，保持电池温度在 15-20℃之间。详细内容请参考用户手册。
- 推荐两块电池保持同时充 / 放电使用，以获得最佳供电性能。推荐使用 DJI GO 4 App 配对功能，并对配对电池进行标记。
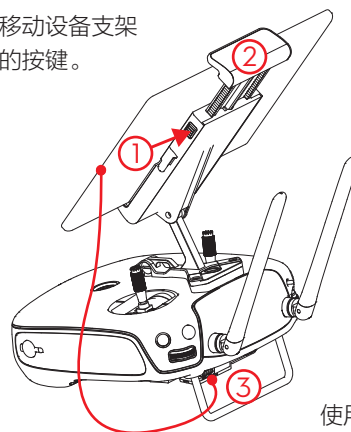
3. 准备遥控器

展开遥控器
短按一次电源开关按键可以查看电池电量。
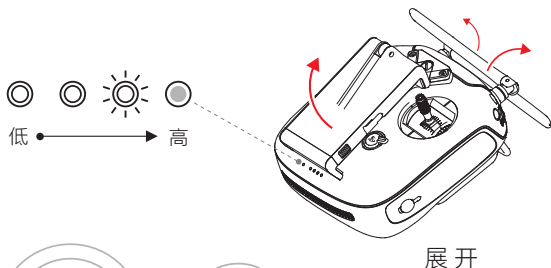
按下移动设备支架
侧边的按键。

调整支架，放置
移动设备并夹紧。

低 ⟶ 高

展 开

强　　　弱

使用移动设备数据线
连接设备与遥控器
USB 接口。