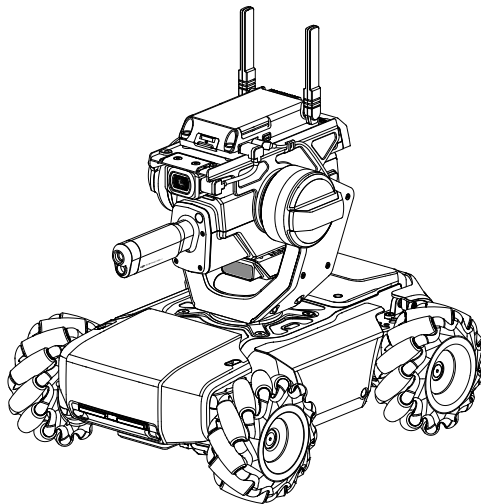


ROBOMASTER S1

Quick Start Guide

v1.4



Introduction

The ROBOMASTER™ S1 is an educational robot inspired by the DJI™ RoboMaster competition. The S1 offers comprehensive control and an immersive driving experience, thanks to the omnidirectional chassis, agile Mecanum wheels, flexible gimbal, and stable, low-latency image transmission in first person view (FPV). Users can also target objects and battle other robots with the S1's blaster.

The S1 supports Scratch and Python programming. With DJI's project-based graded tutorials, users can gradually master programming theory and robot system knowledge.

The S1 features Solo mode and Battle mode where users can practice their skills and compete against others. To control the robot, users can choose from the RoboMaster app on a mobile device, the gamepad, or the keyboard and mouse.

Downloading the RoboMaster App and Watching Tutorial Videos



RoboMaster App



Tutorial Videos

Search for the RoboMaster app in the App Store or Google Play or scan the QR code to download the app on your mobile device.

Visit the official DJI website <https://www.dji.com/robomaster-s1/video> or go to the app and enter the Guide page to watch the tutorial videos for assembly and use. You can also assemble the robot according to the assembly guide in the quick start guide.



- The RoboMaster app supports iOS 10.0.2 or later or Android 5.0 or later.
- Users can also download the RoboMaster software for Windows from the official DJI website on a computer to control the robot with a keyboard and mouse. https://www.dji.com/robomaster_app



After assembly, use your DJI account to activate the robot in the RoboMaster app. Activation requires an internet connection.

Specifications

Structure

Dimensions 320 × 240 × 270 mm (L × W × H)
Weight Approx. 3.3 kg

Intelligent Controller

Operating Frequency 2.4 GHz, 5.8 GHz, 5.1 GHz (limited to indoor use)

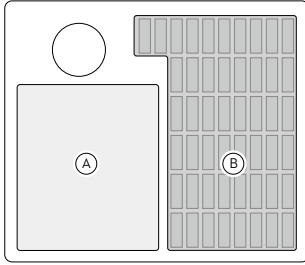
Intelligent Battery

Capacity 2400 mAh
Charging Voltage 12.6 V
Battery Type LiPo 3S
Energy 25.92 Wh

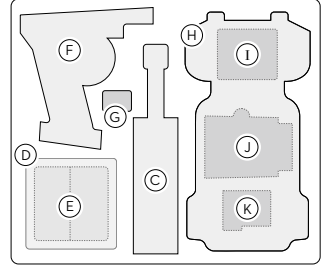
In the Box

Check that all of the following items are in your package. If any item is missing, contact DJI or your local dealer.

Top Layer:



Middle Layer:



A



Manuals

- Quick Start Guide
- Disclaimer and Safety Guidelines - At a Glance



Vision Marker

x7

B

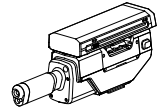


x48 (+2)*

B1

Mecanum Wheel Roller

C



x1

C1

Blaster (Gel Bead Container included)

D



x4

D1

M35081 Brushless Motor and ESC

E



x4

E1

Damping Ring Bracket

B1



x1

E2

Bottled Gel Beads

F



x1

F1

Gimbal

G

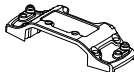


x1

G1

Camera

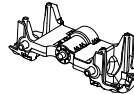
H



x1

H1

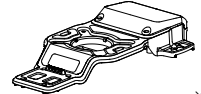
Front Axle Cover



x1

H2

Front Axle Module Base



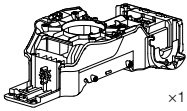
x1

H3

Chassis Cover

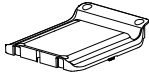
Attached to the chassis middle frame before delivery.

* (+x) refers to the quantity of spare items included in the package.



x1

H4
Chassis Middle Frame
(Intelligent Battery
included)



x1

H5
Chassis Cabin Cover
Attached to the chassis
middle frame before
delivery.

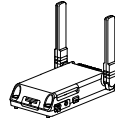
I



x4

I1
Hit Detector

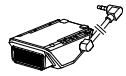
J



x1

J1
Intelligent Controller

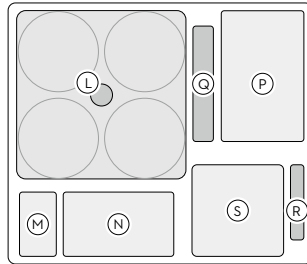
K



x1

K1
Speaker

Bottom Layer:



L



x2

L1
Left-Threaded Inner Hub



x2

L2
Left-Threaded Outer Hub



x2

L3
Right-Threaded Inner Hub



x2

L4
Right-Threaded Outer Hub



x4

L5
Mecanum Wheel Damping
Ring



x4

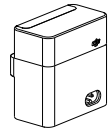
L6
Motor Mounting Plate



x1

L7
Screwdriver Handle

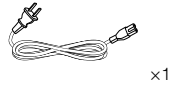
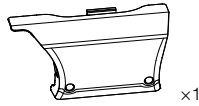
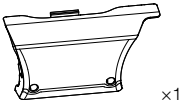
M



x1

M1
Intelligent Battery Charger

N

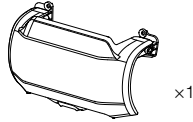


N1
Chassis Left Armor

N2
Chassis Right Armor

N3
AC Power Cable
Varies by region.

P



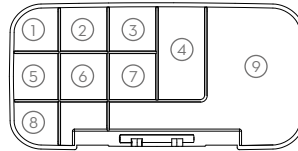
P1
Chassis Front Armor

P2
Chassis Rear Armor

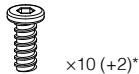
P3
Safety Goggles

Q1
Screw Box

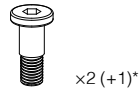
The screw box includes the following items:



① Front Rubber Stop



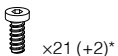
② T3 Screw



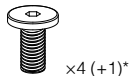
③ M3-B Screw



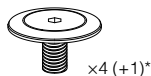
④ M3-A Screw



⑤ T2 Screw



⑥ M4-B Screw



⑦ M4-A Screw



⑧ Rubber Shock Ring



⑨ Screwdriver Bit

* (+x) refers to the quantity of spare items included in the package.

R



x1

R1

Motion Controller

S



x1

S1

X-Shaped Front Shaft Cover



x1

S2

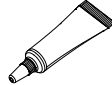
Cable Retainer



x1

S3

Mecanum Wheel Mounting Plate



x1

S4

Grease



x1

S5

Masking Tape



x1

S6

Camera Cable



35 cm

x1

S7

Data Cables



23 cm

x2

S8



12 cm

x4

S9

Preparation



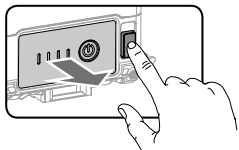
Wear the safety goggles to avoid injuring your eyes while assembling the components.

1. Preparing the Gel Beads

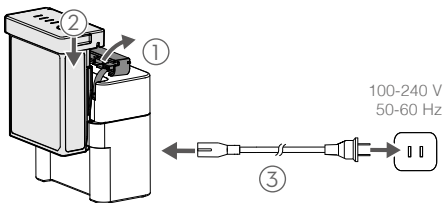


Refer to the label on the bottle for more information on how to soak the gel beads properly before assembly.

2. Charging the Battery

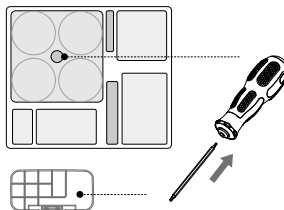


Charge the battery to bring it out of hibernation before using for the first time.



Charging Time: Approx. 1 hour and 30 min

3. Preparing the Screwdriver



The package includes a screwdriver handle and a double-head bit. The smaller end of the bit is for the T2 screws, and the bigger end is for the other screws.

4. Legend



Refers to the accessories required including such information as the screw model and quantity. For example, the description in this illustration indicates that six screws of the M3-A model are required.



Indicates that the bottom of the robot is displayed.



Refers to where the required accessories are located in the screw box.

5. Cable Connection Instructions

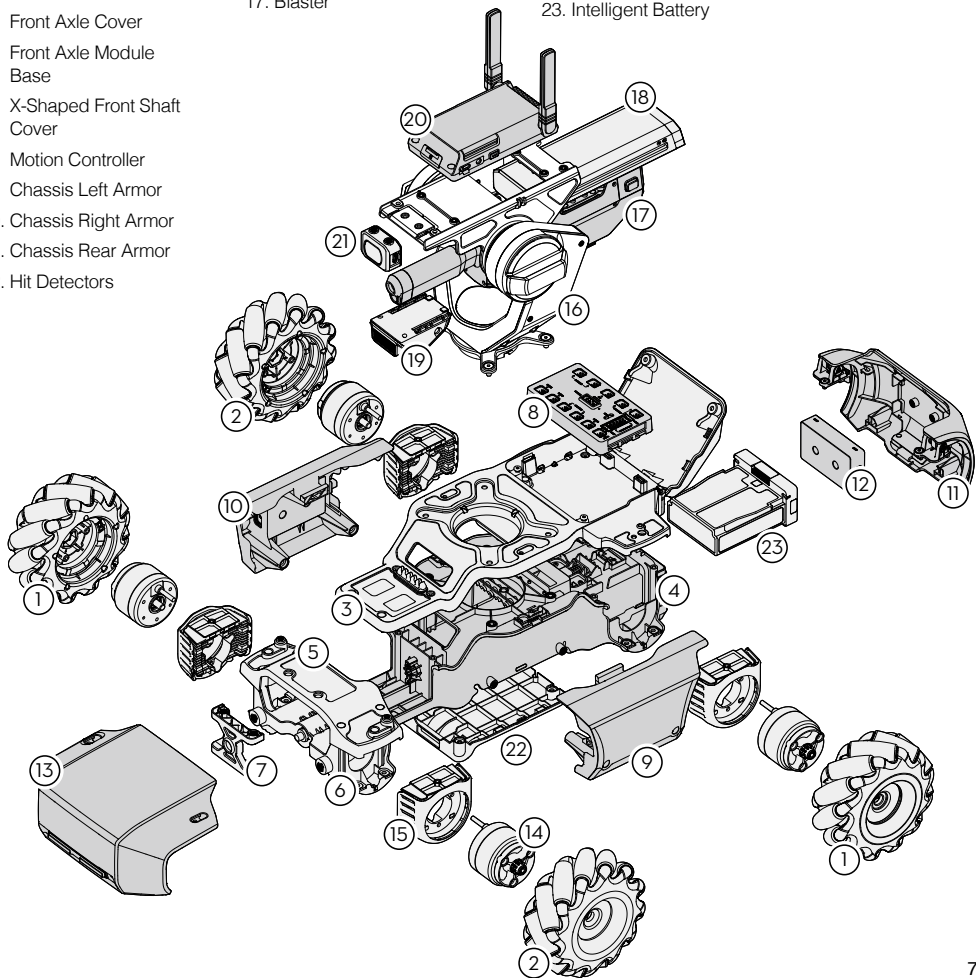
Connect the **black** and **orange** cables to the ports with the corresponding color.



Follow the instructions for cable connection and wiring to avoid cable damage.

Overview

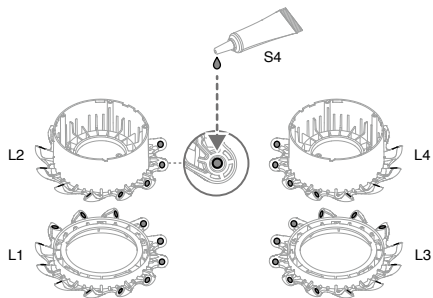
- | | | |
|----------------------------------|--------------------------------------|----------------------------|
| 1. Left-Threaded Mecanum Wheels | 13. Chassis Front Armor | 18. Gel Bead Container |
| 2. Right-Threaded Mecanum Wheels | 14. M3508I Brushless Motors and ESCs | 19. Speaker |
| 3. Chassis Cover | 15. Motor Mounting Plates | 20. Intelligent Controller |
| 4. Chassis Middle Frame | 16. Gimbal | 21. Camera |
| 5. Front Axle Cover | 17. Blaster | 22. Chassis Cabin Cover |
| 6. Front Axle Module Base | | 23. Intelligent Battery |
| 7. X-Shaped Front Shaft Cover | | |
| 8. Motion Controller | | |
| 9. Chassis Left Armor | | |
| 10. Chassis Right Armor | | |
| 11. Chassis Rear Armor | | |
| 12. Hit Detectors | | |
| 11. Chassis Rear Armor | | |
| 12. Hit Detectors | | |



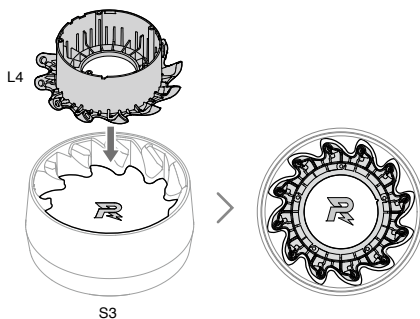
Assembly Guide

Each item has a code. Refer to the In the Box section and check the corresponding code to find out where each item is located in the package.

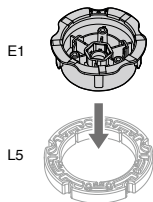
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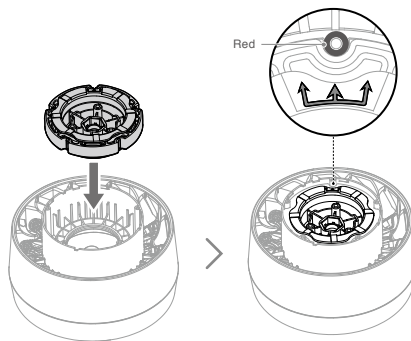
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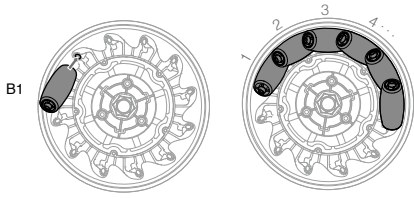
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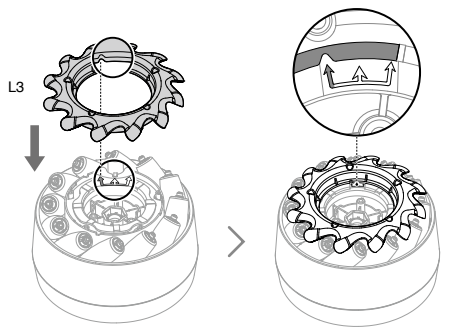
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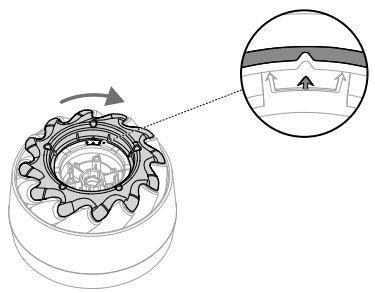
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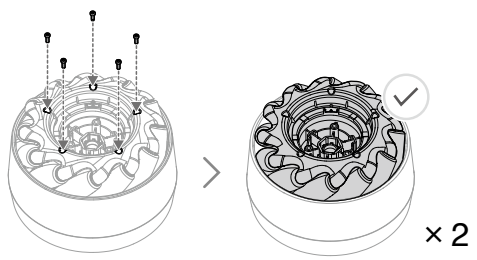
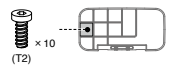
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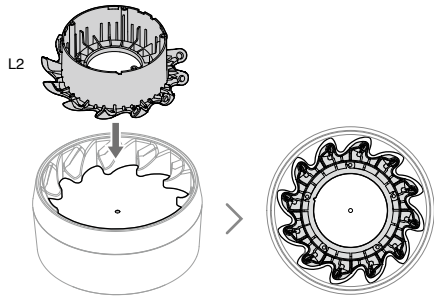
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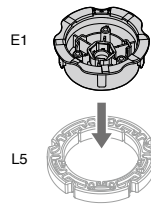
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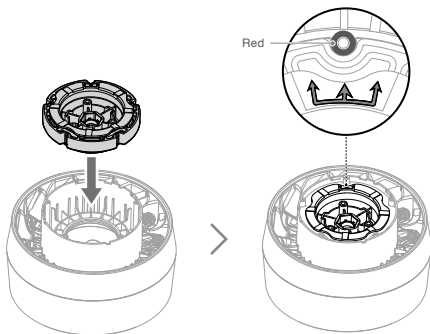
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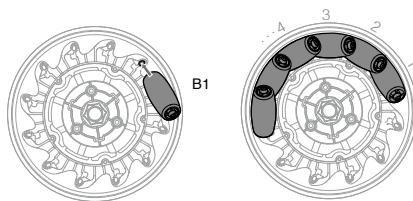
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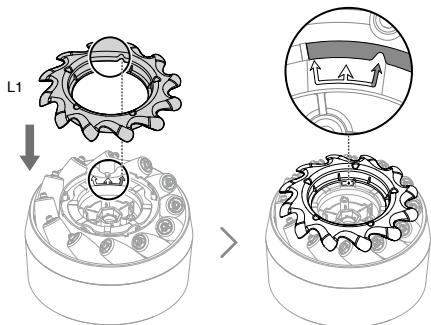
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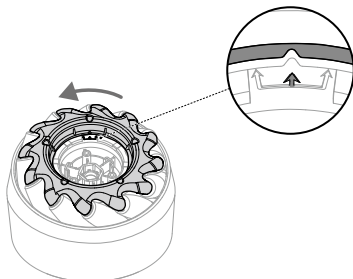
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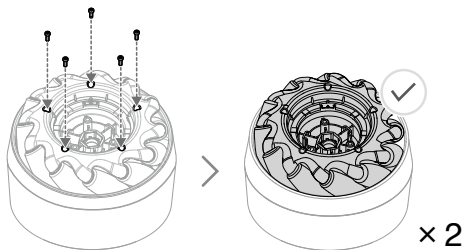
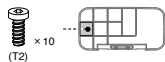
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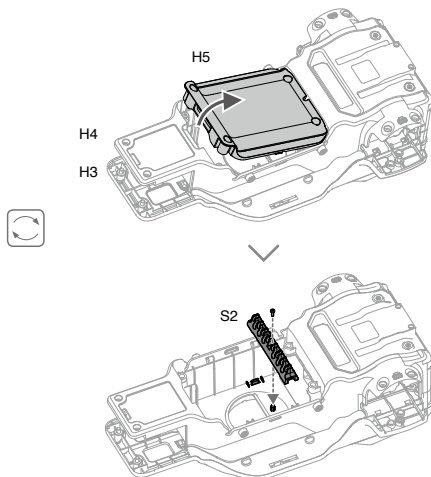
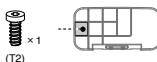
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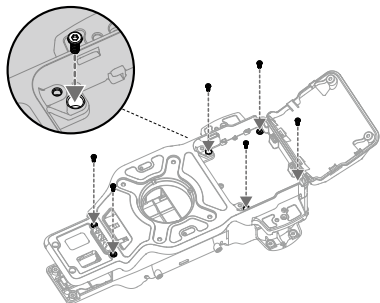
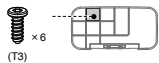
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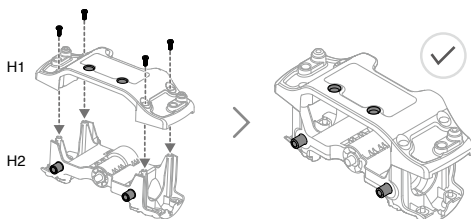
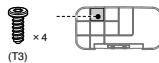
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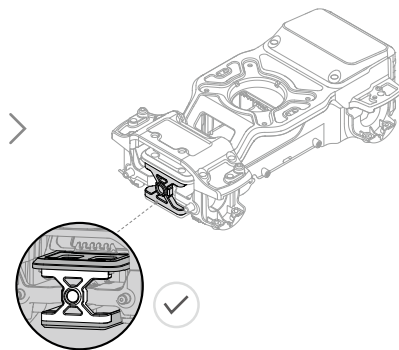
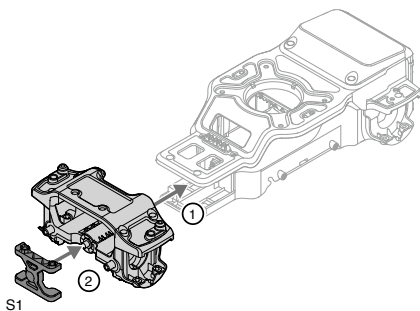
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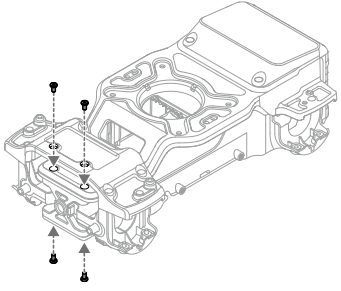
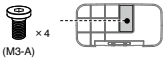
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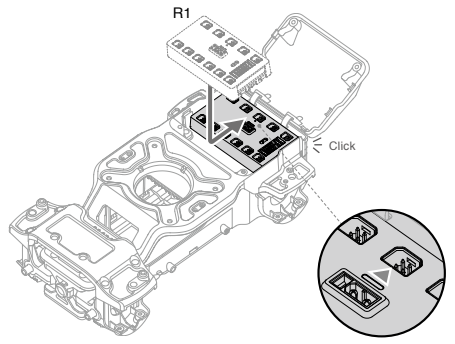
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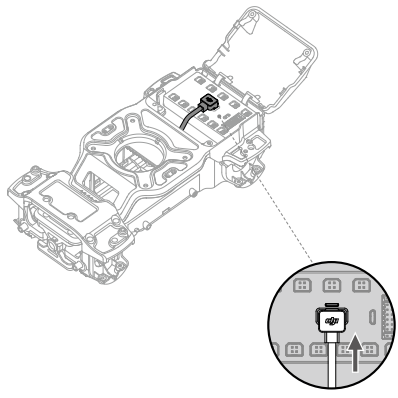
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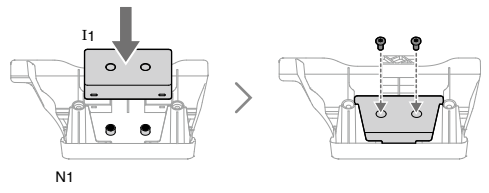
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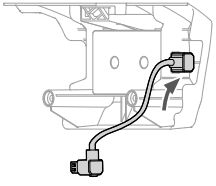
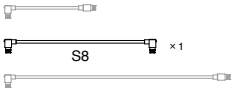
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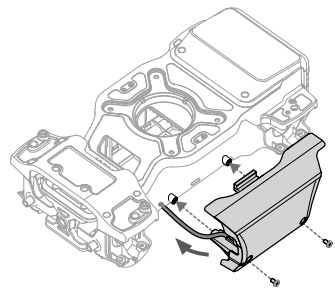
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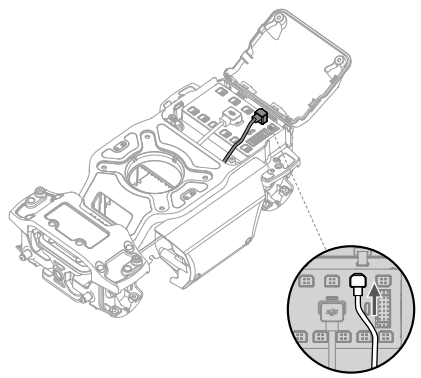
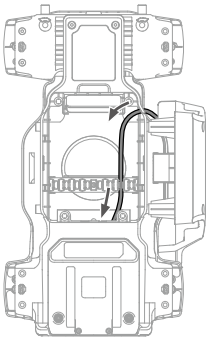
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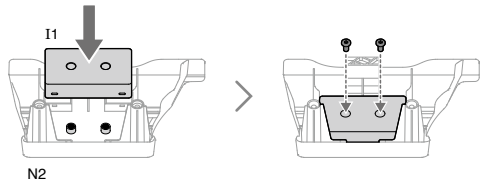
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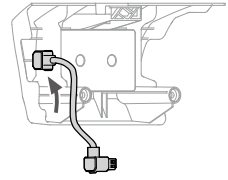
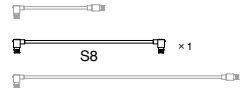
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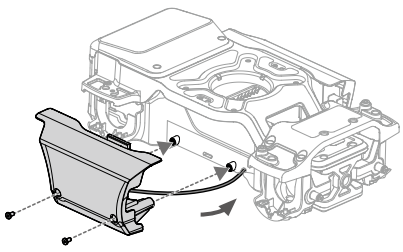
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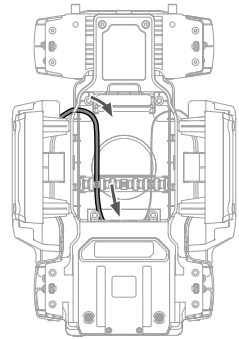
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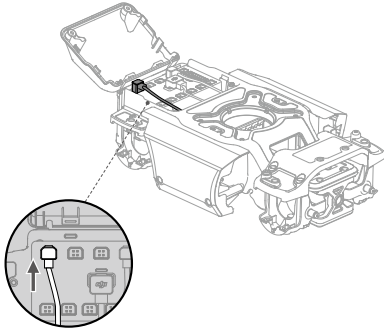
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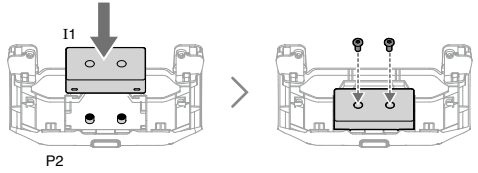
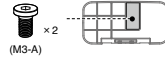
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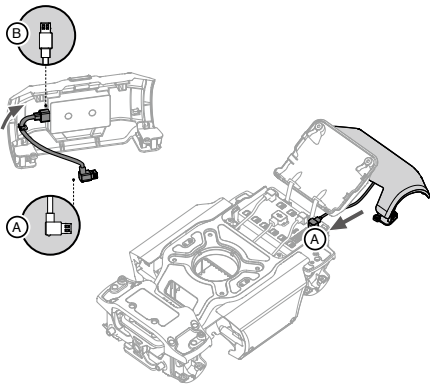
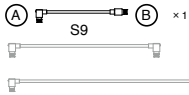
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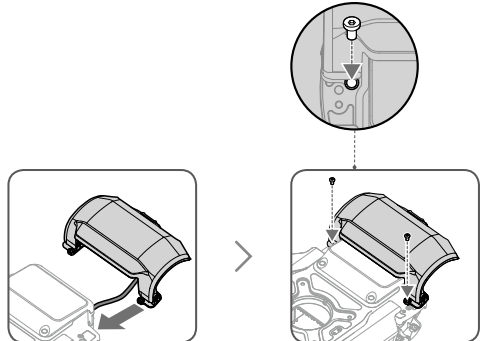
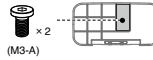
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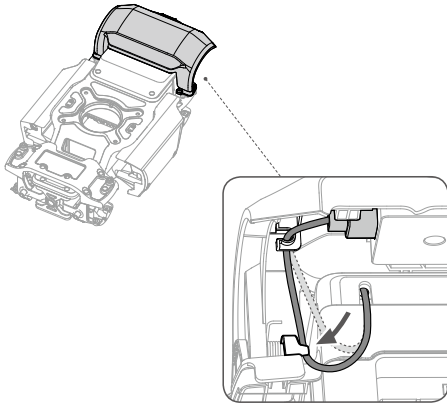
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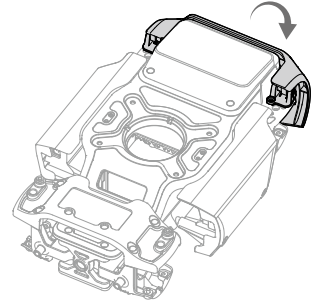
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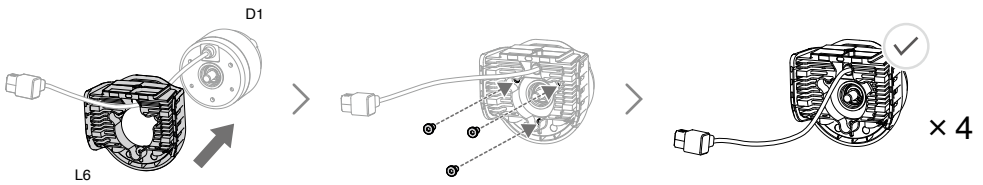
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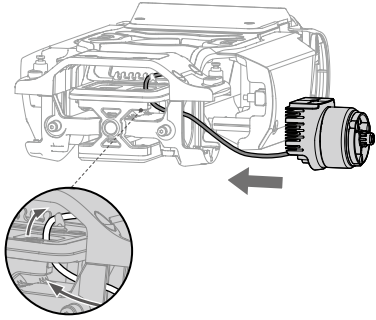
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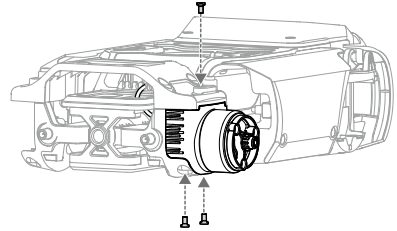
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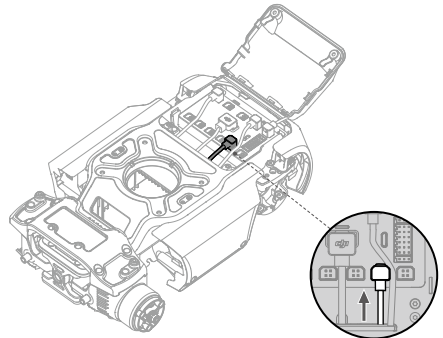
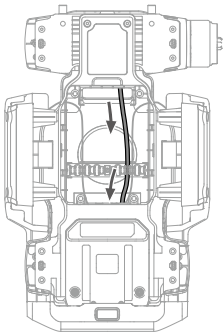
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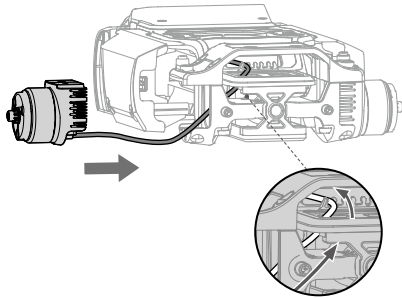
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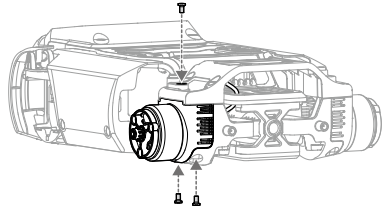
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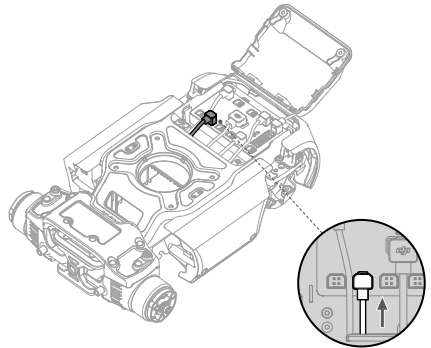
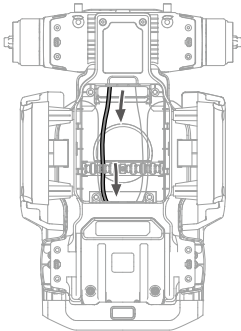
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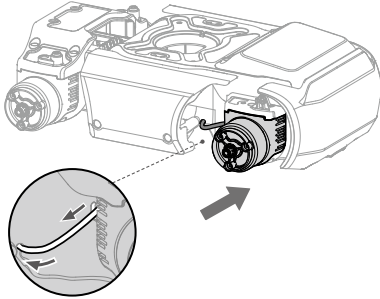
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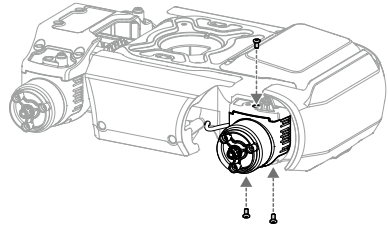
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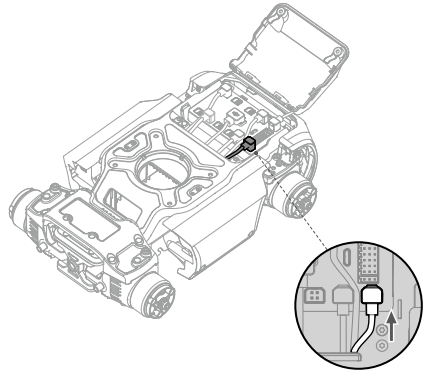
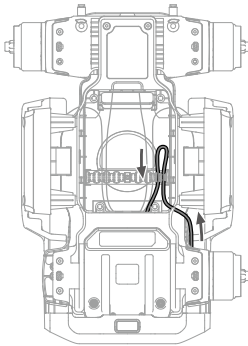
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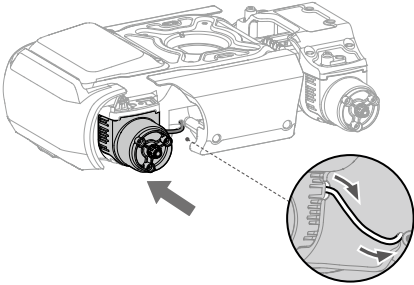
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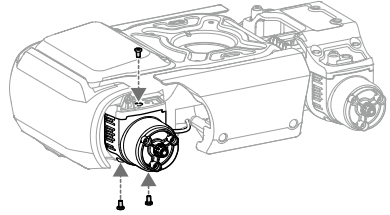
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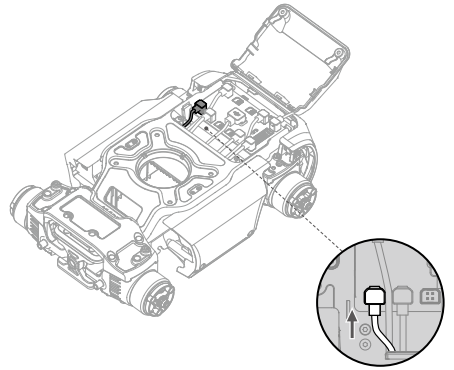
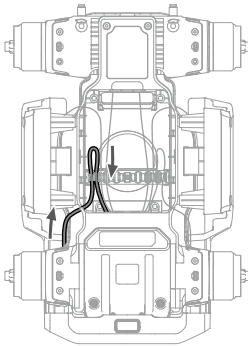
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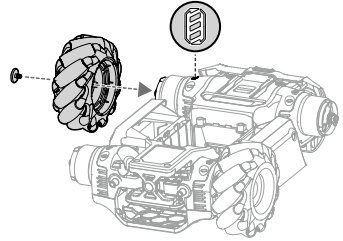
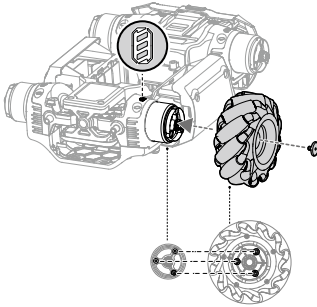
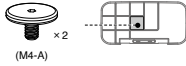
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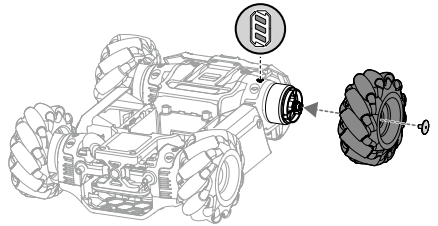
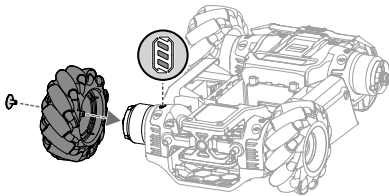
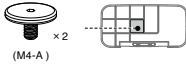
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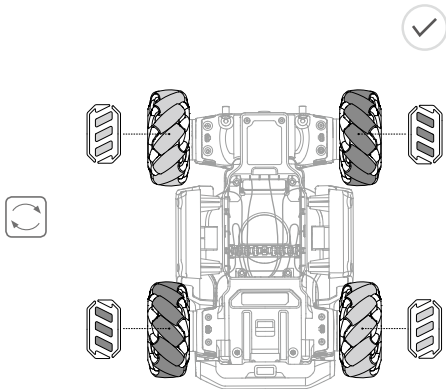
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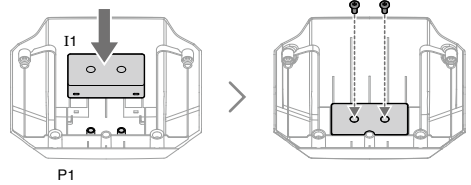
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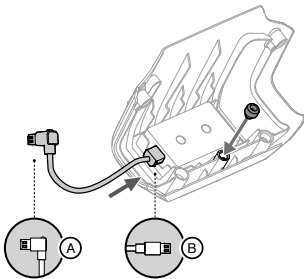
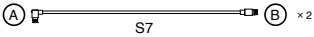
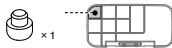
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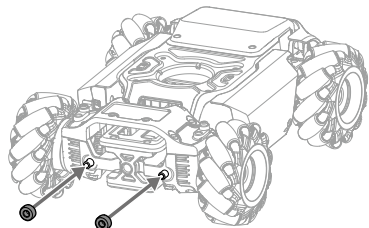
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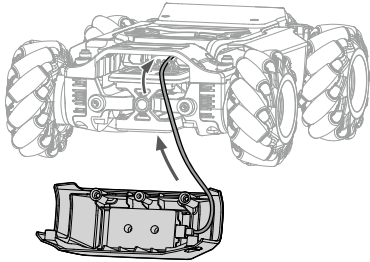
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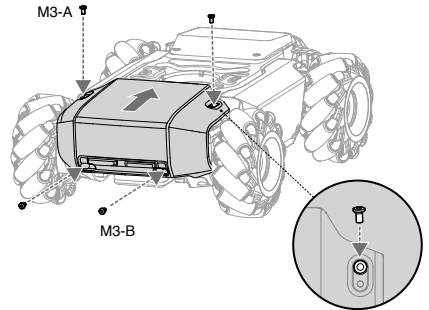
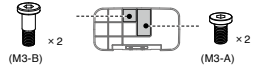
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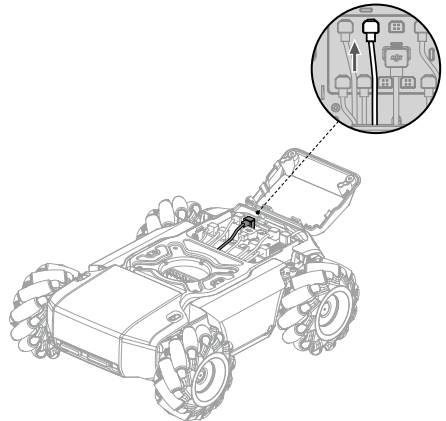
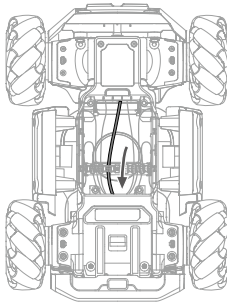
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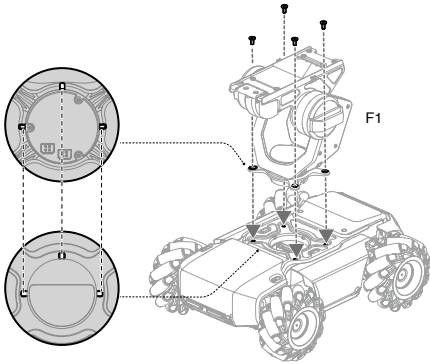
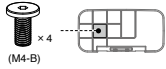
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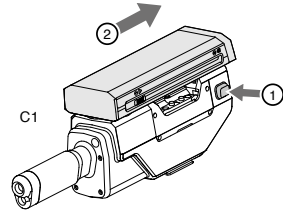
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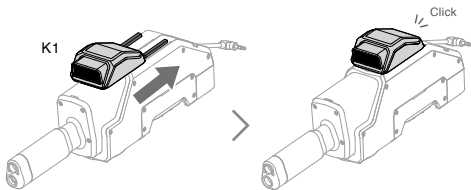
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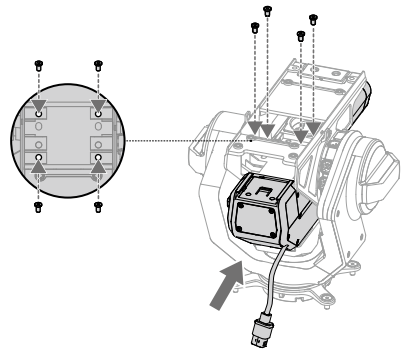
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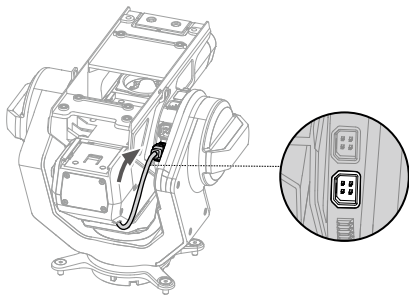
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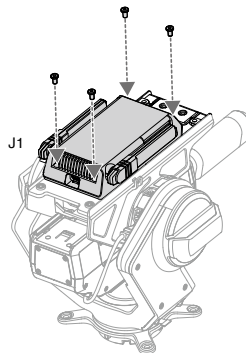
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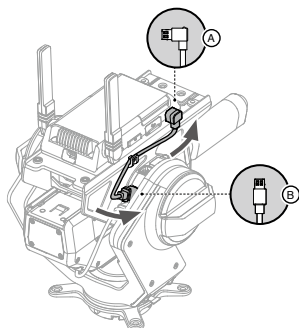
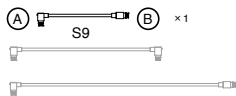
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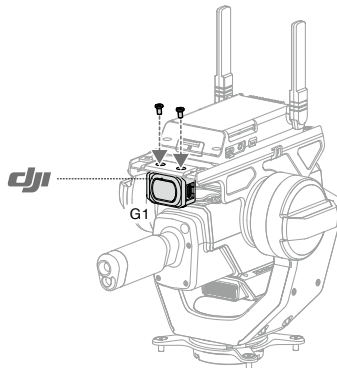
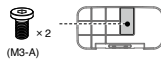
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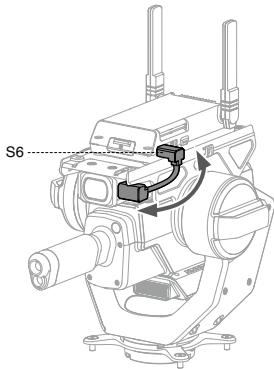
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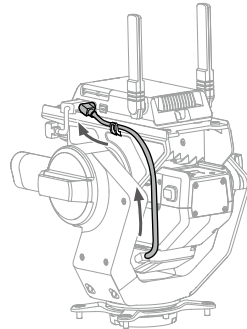
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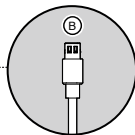
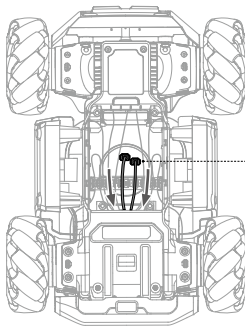
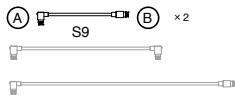
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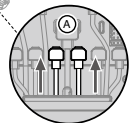
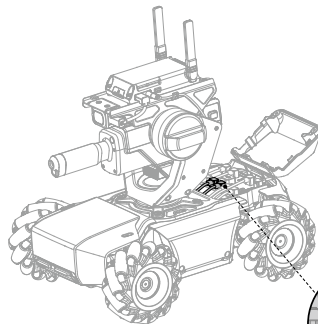
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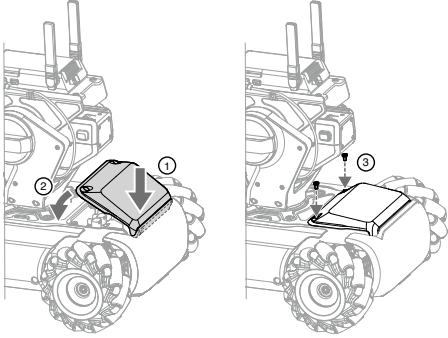
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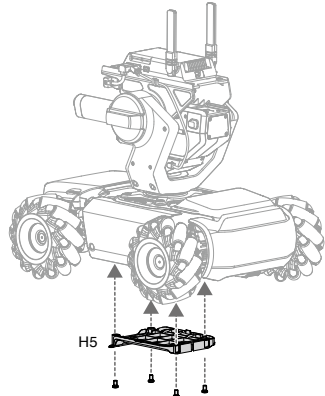
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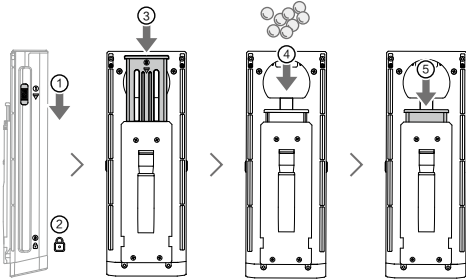
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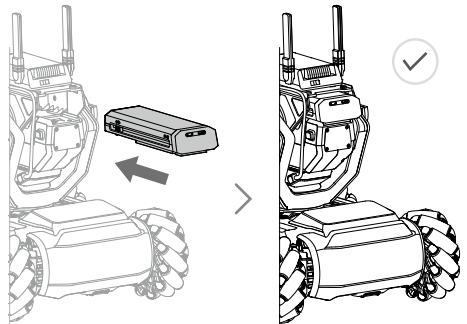
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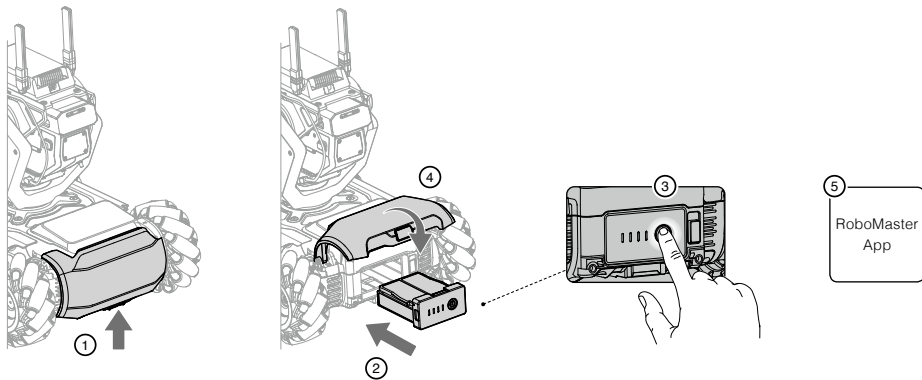


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Powering On and Activating the S1

Insert the Intelligent Battery into the S1, press and hold the power button on the Intelligent Battery to power it on, and connect to the app to activate the S1.



The content is subject to change without prior notice.
Visit the product page on the official DJI website for more information.

<https://www.dji.com/robomaster-s1>

ROBOMASTER S1

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