



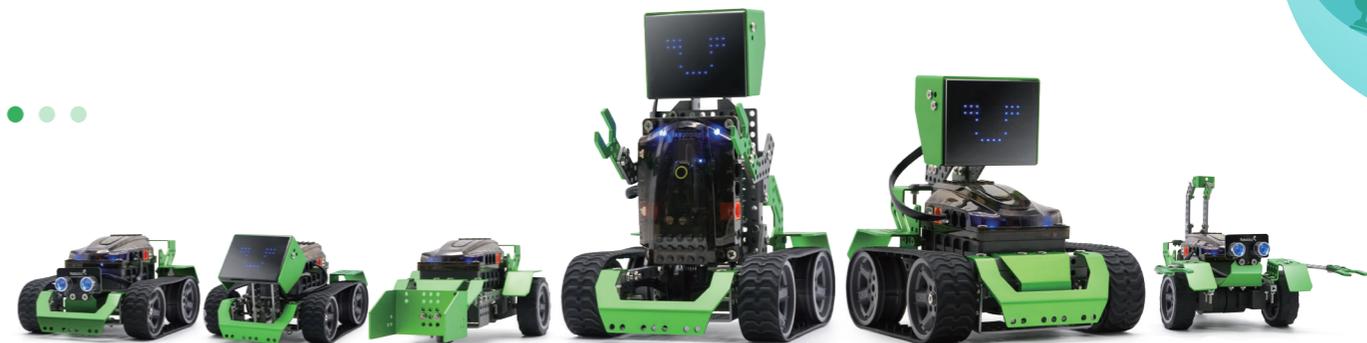
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Qoopers

User Manual

Age:10+



STEAM

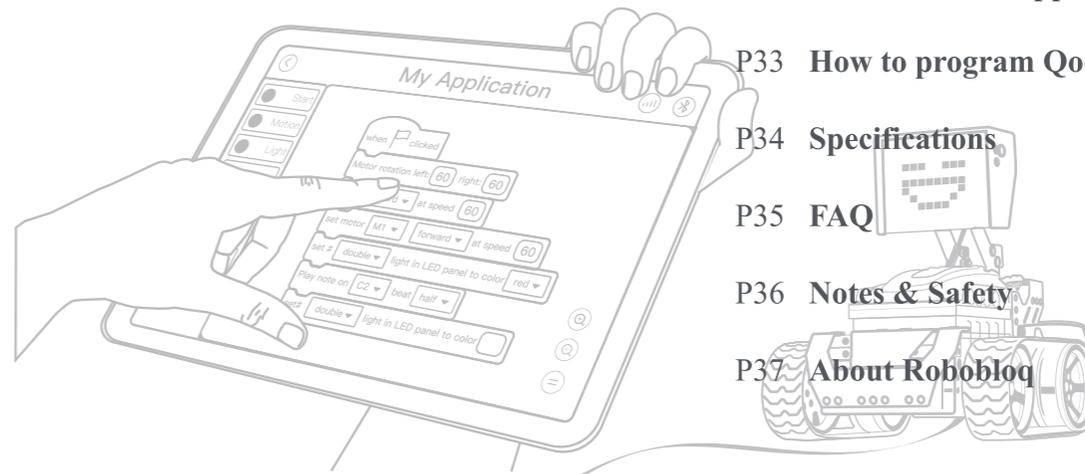
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This User Manual provides information on the building and operation of the Qoopers. All users should read this User Manual carefully and follow the instructions inside to safely operate their Qoopers. The Qoopers User Manual may be updated when necessary. Please visit our website <https://wiki.robobloq.com/> to download the latest version of the User Manual.

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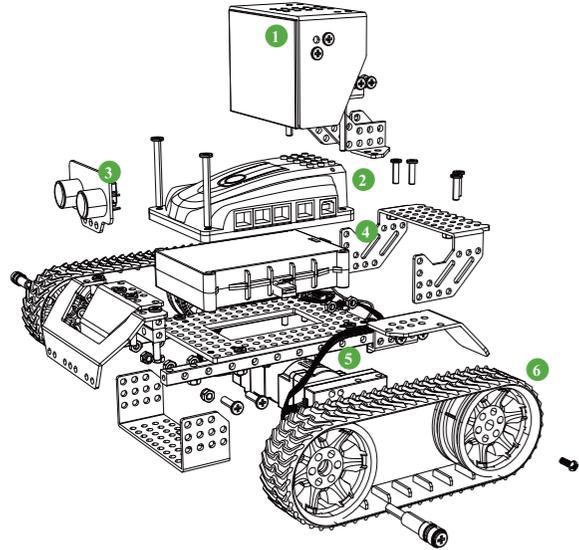
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What is Qoopers

Qoopers is a programmable robot kit for ages 10 and 10+, it includes mechanical parts, mechanical structures, and electronic modules that can be freely assembled into different forms, as well as programming software and course materials. Students will be able to build the robots from scratch and experience the fun of hands-on creation. At the same time, they will also learn how the different mechanical structures and electronic modules function and practice Scratch programming. By making programming simple and fun, the robot kit helps students develop their skills and knowledge in science, technology, engineering, arts, and mathematics!

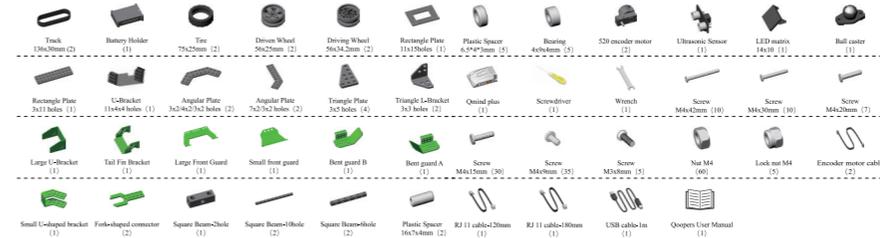


- 1 LED matrix
- 2 Qmind plus
- 3 Ultrasonic sensor
- 4 Battery holder
- 5 520 encoder motor
- 6 Track wheel

Highlights: A 6-in-1, transformable robot building & coding kit. Qoopers comes with a military-style metallic look, changeable battle forms and easy-to-use, Scratch 3.0 based graphical coding. With its rich extension capabilities, Qoopers offers the best robot building and coding experience.

How to use the kit

1 Check that no parts are missing.



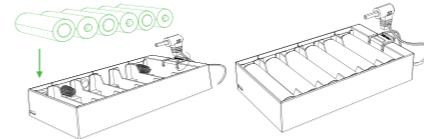
2 Build the robot.

Qoopers can be made into at least 6 different forms. Refer to the User Manual or the Robobloq app for assembly instructions.



3 Prepare 6 AA batteries.

(For better results, please use high-performance alkaline or NiMH rechargeable dry batteries.)



4 Download the Robobloq app to control your Qoopers!



Q Robobloq search

5 Program the Qoopers using the software.



What is inside the kit

					
Track 136x30mm (2)	Battery Holder (1)	Tire 75x25mm (2)	Driven Wheel 56x25mm (2)	Driving Wheel 56x34.2mm (2)	Rectangle Plate 11x15holes (1)
					
Rectangle Plate 3x11 holes (1)	U-Bracket 11x4x4 holes (1)	Angular Plate 3x2/4x2/3x2 holes (2)	Angular Plate 7x2/3x2 holes (2)	Triangle Plate 3x5 holes (4)	Triangle L-Bracket 3x3 holes (2)
					
Large U-Bracket (1)	Tail Fin Bracket (1)	Large Front Guard (1)	Small front guard (1)	Bent guard B (1)	Bent guard A (1)
					
Small U-shaped bracket (1)	Fork-shaped connector (2)	Square Beam-2hole (1)	Square Beam-10hole (2)	Square Beam-6hole (2)	Plastic Spacer 16x7x4mm (2)

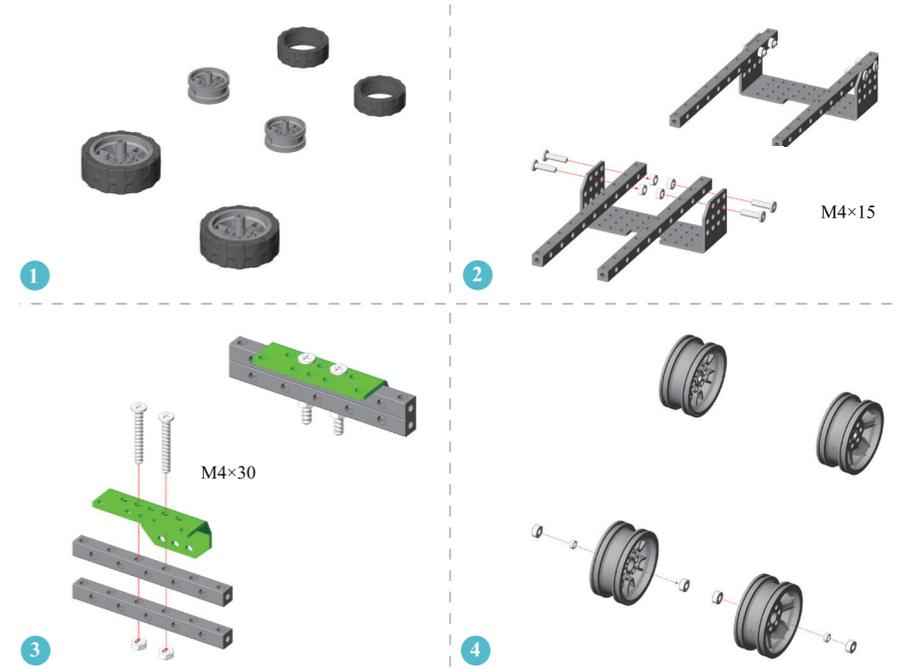
					
Plastic Spacer 6.5*4*3mm (5)	Bearing 4x9x4mm (5)	520 encoder motor (2)	Ultrasonic Sensor (1)	LED matrix 14x10 (1)	Ball caster (1)
					
Qmind plus (1)	Screwdriver (1)	Wrench (1)	Screw M4x42mm (10)	Screw M4x30mm (10)	Screw M4x20mm (7)
					
Screw M4x15mm (30)	Screw M4x9mm (35)	Screw M3x8mm (5)	Nut M4 (60)	Lock nut M4 (5)	Encoder motor cable (2)
					
RJ 11 cable-120mm (1)	RJ 11 cable-180mm (1)	USB cable-100mm (1)	Qoopers User Manual (1)		

How to assemble the Qoopers >>>



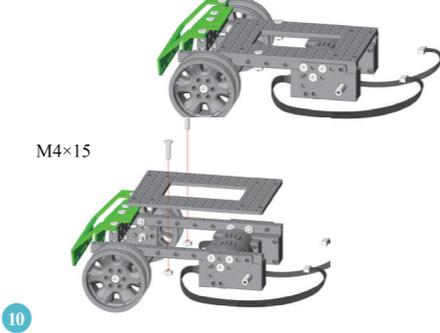
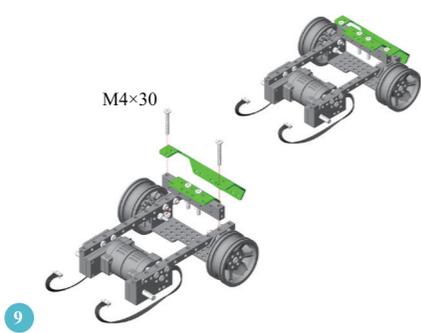
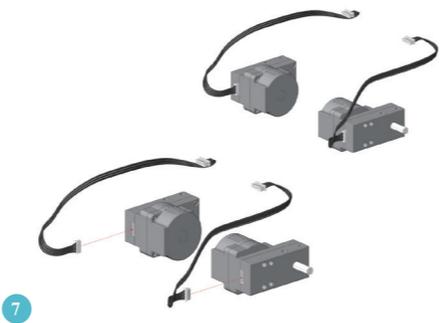
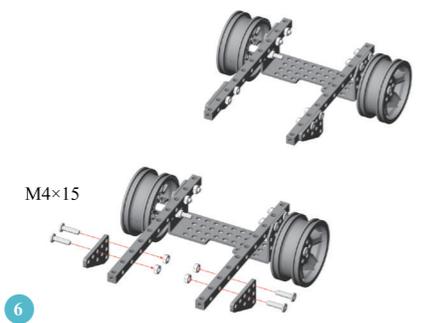
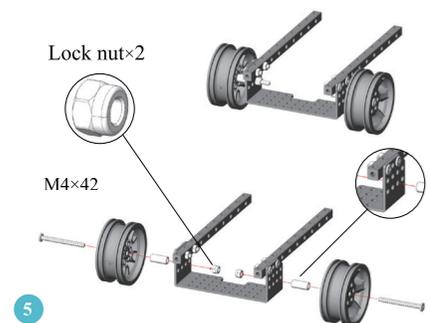
• 01 Assemble Qoopers | Captain Alloy

Captain Alloy, the smart center, presents its strategic command with expression and action.



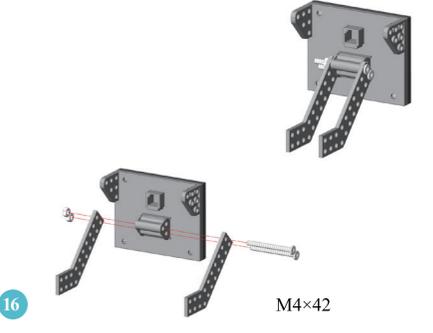
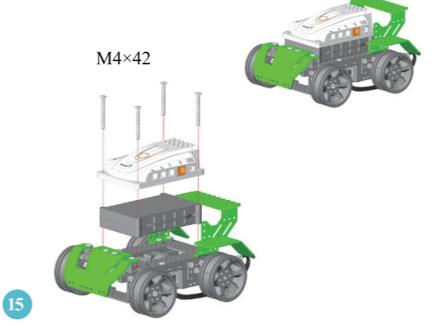
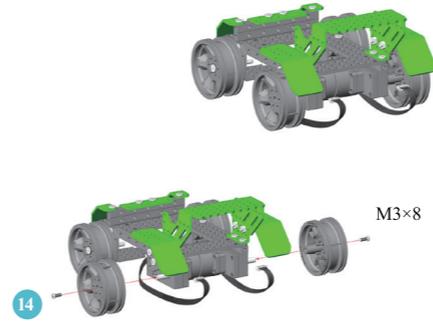
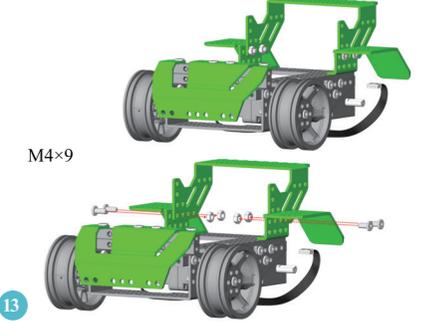
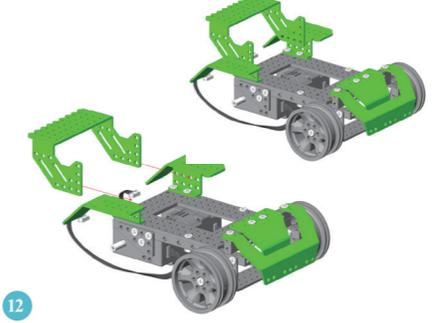
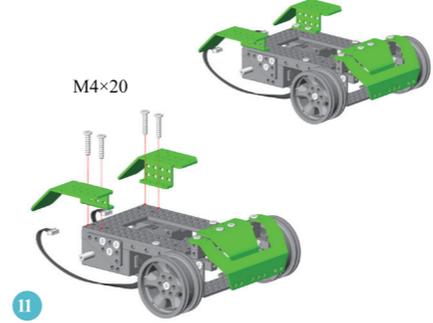
Assemble Qoopers | Captain Alloy

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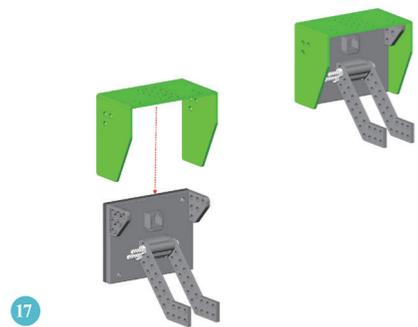
Assemble Qoopers | Captain Alloy

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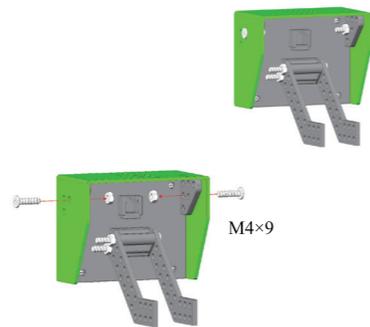


Assemble Qoopers | Captain Alloy

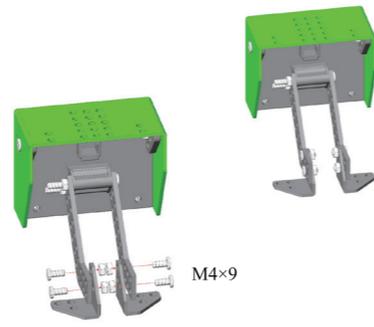
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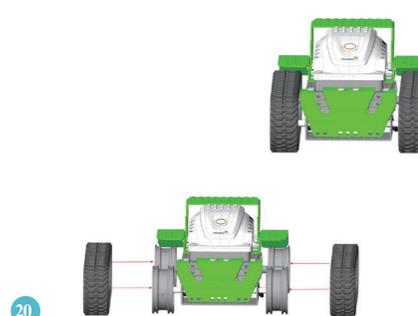
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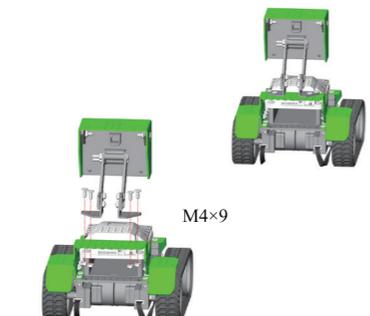
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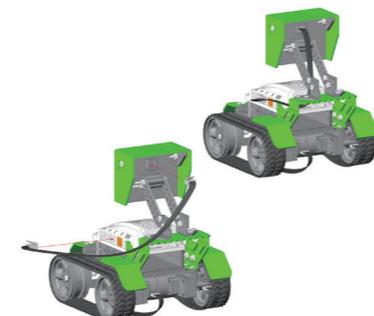
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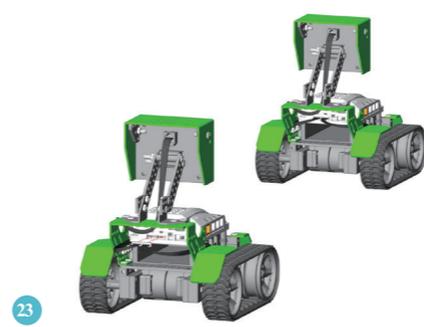
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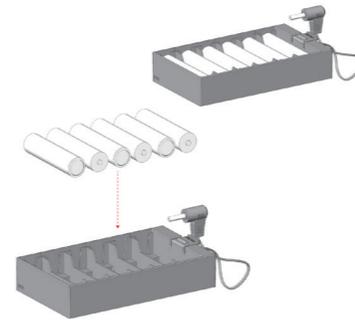
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Assemble Qoopers | Captain Alloy

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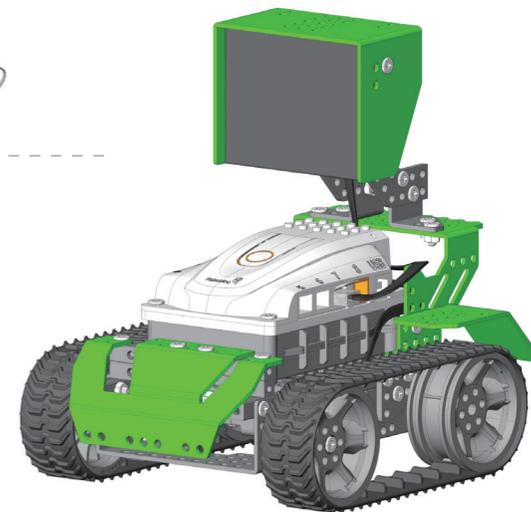
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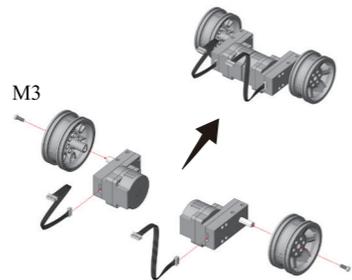
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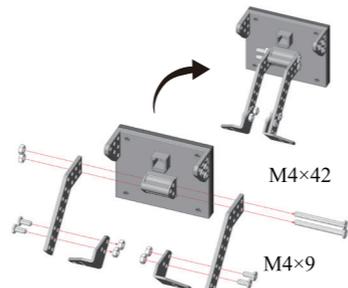
02 Assemble Qoopers | Li'l Guardian

An crawler robot with LED matrix expression, its appearance and impressive off-road ability allow it to gallop in a narrow space.

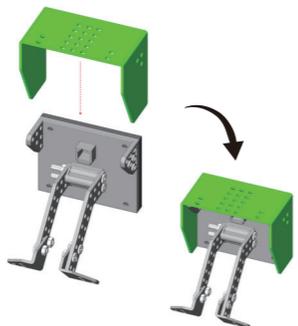
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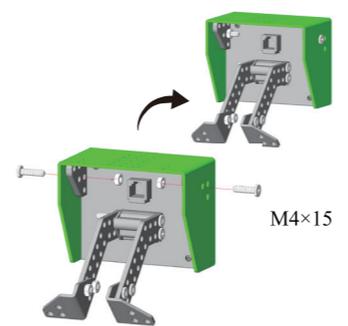
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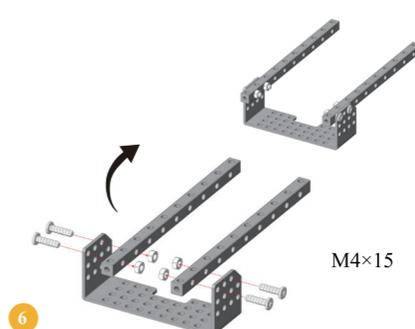
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Assemble Qoopers | Li'l Guardian

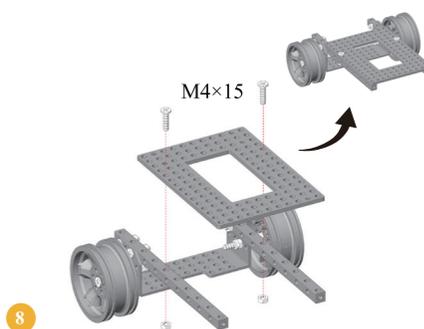
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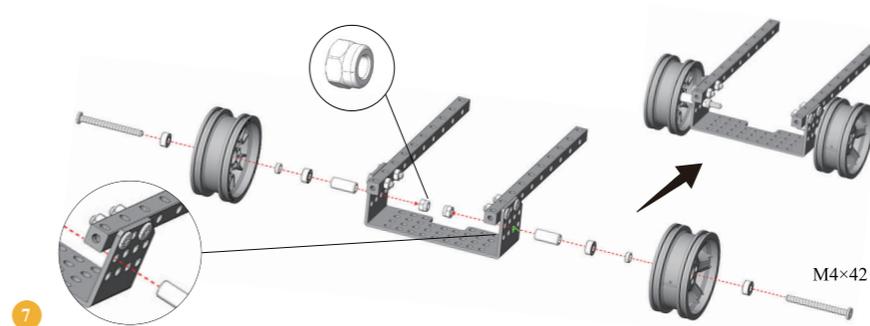
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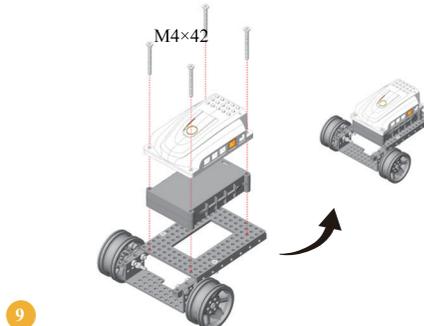
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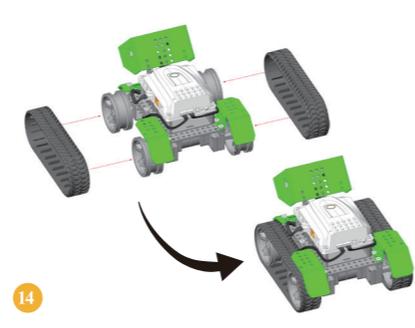
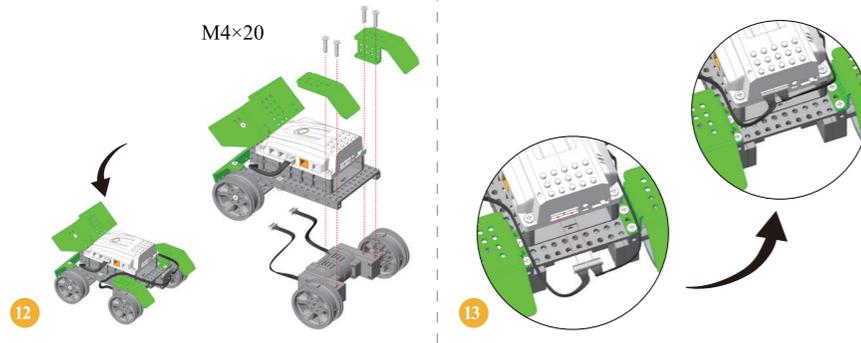
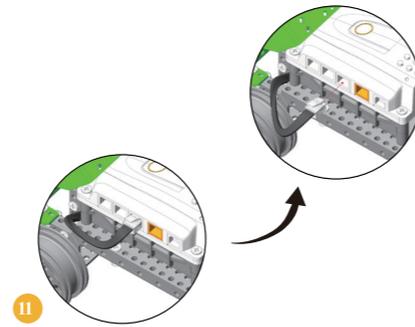
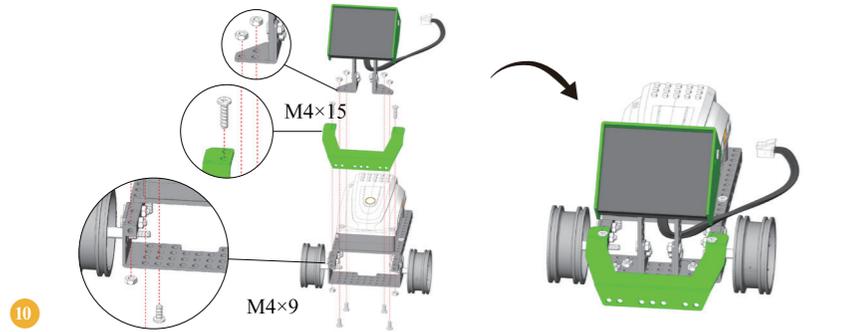
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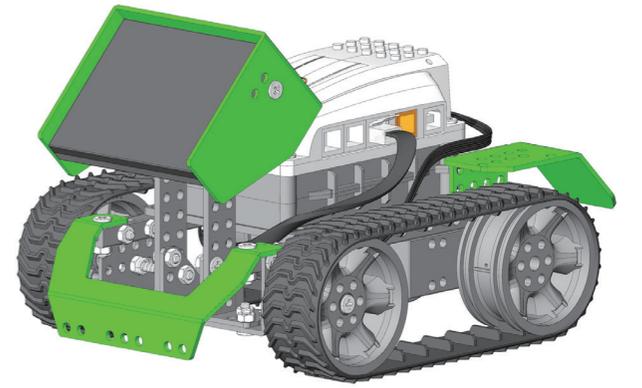
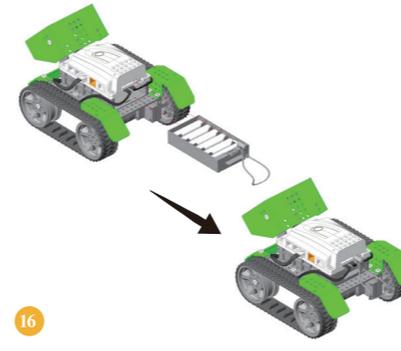
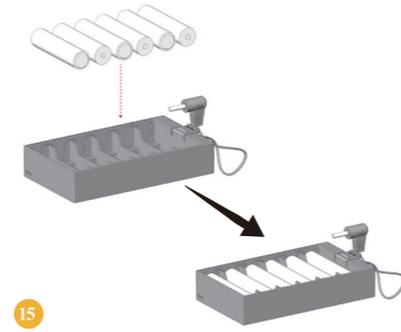
Assemble Qoopers | Li'l Guardian

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Assemble Qoopers | Li'l Guardian

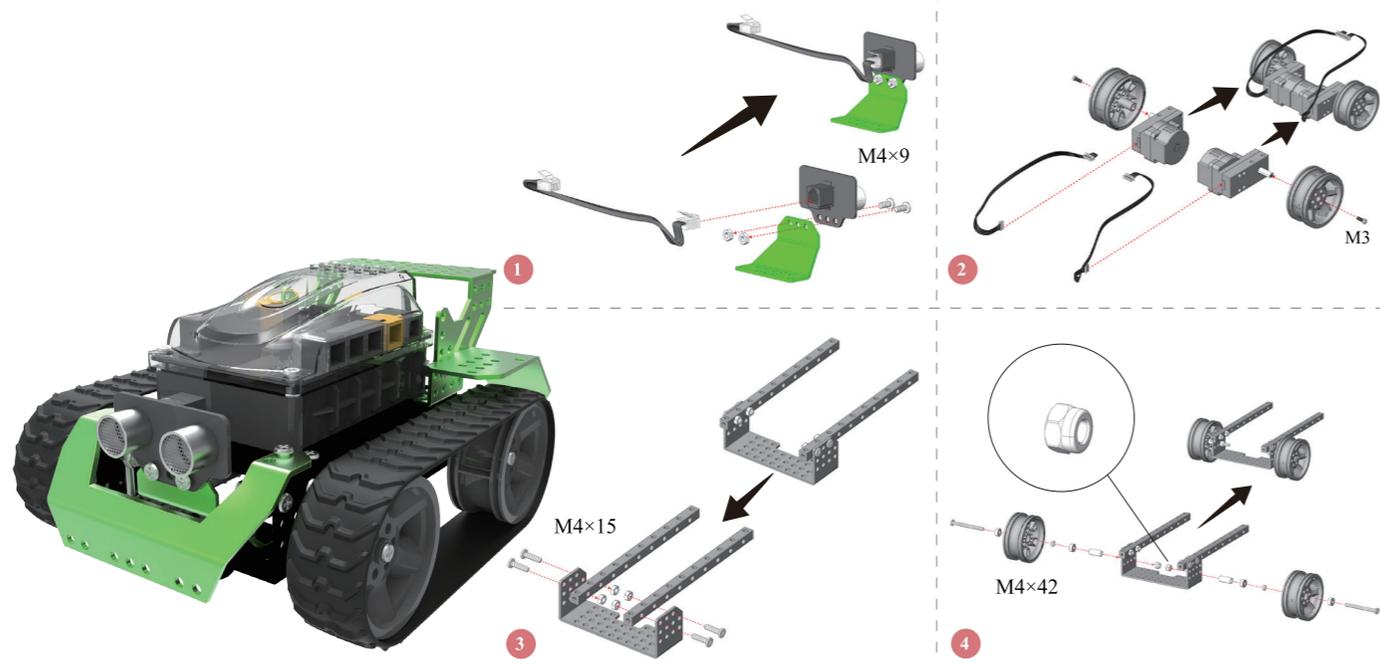
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• 03 Assemble Qoopers | The Voyager

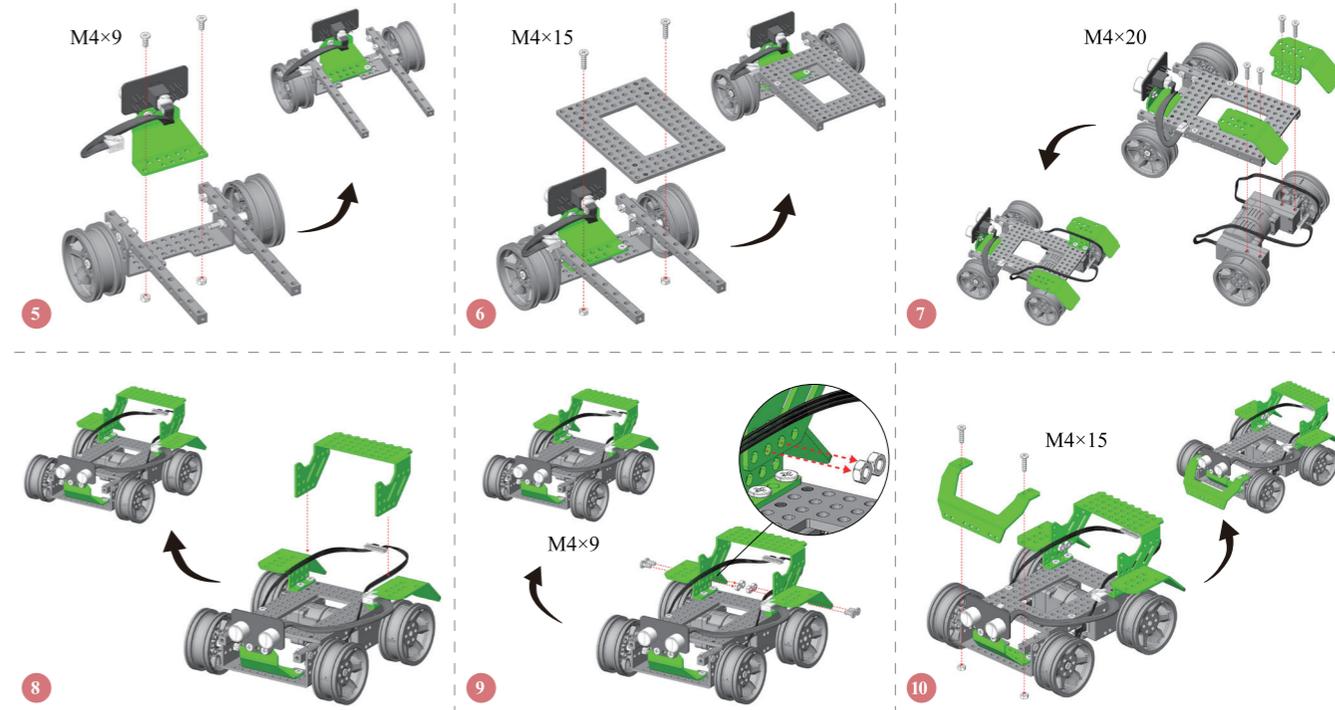
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Crawler robot, exquisite structure with ultrasonic sensor, it has a strong off-road ability.



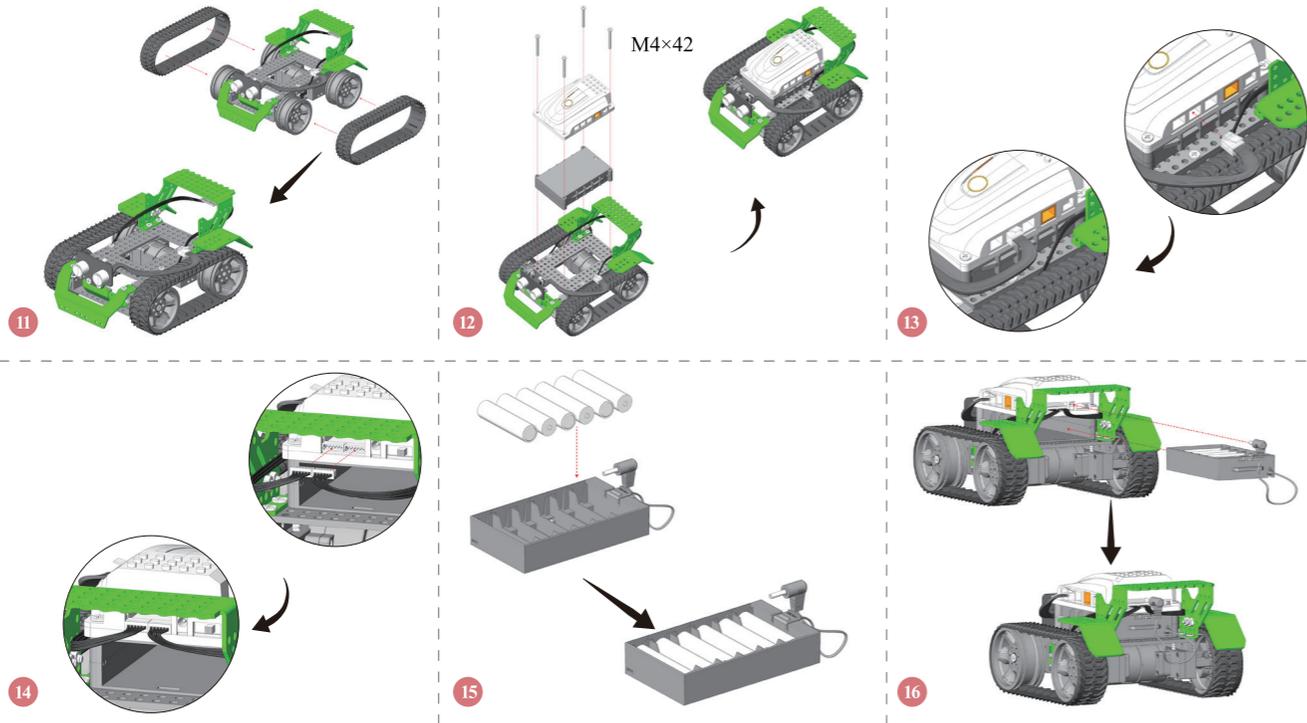
Assemble Qoopers | The Voyager

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Assemble Qoopers | The Voyager

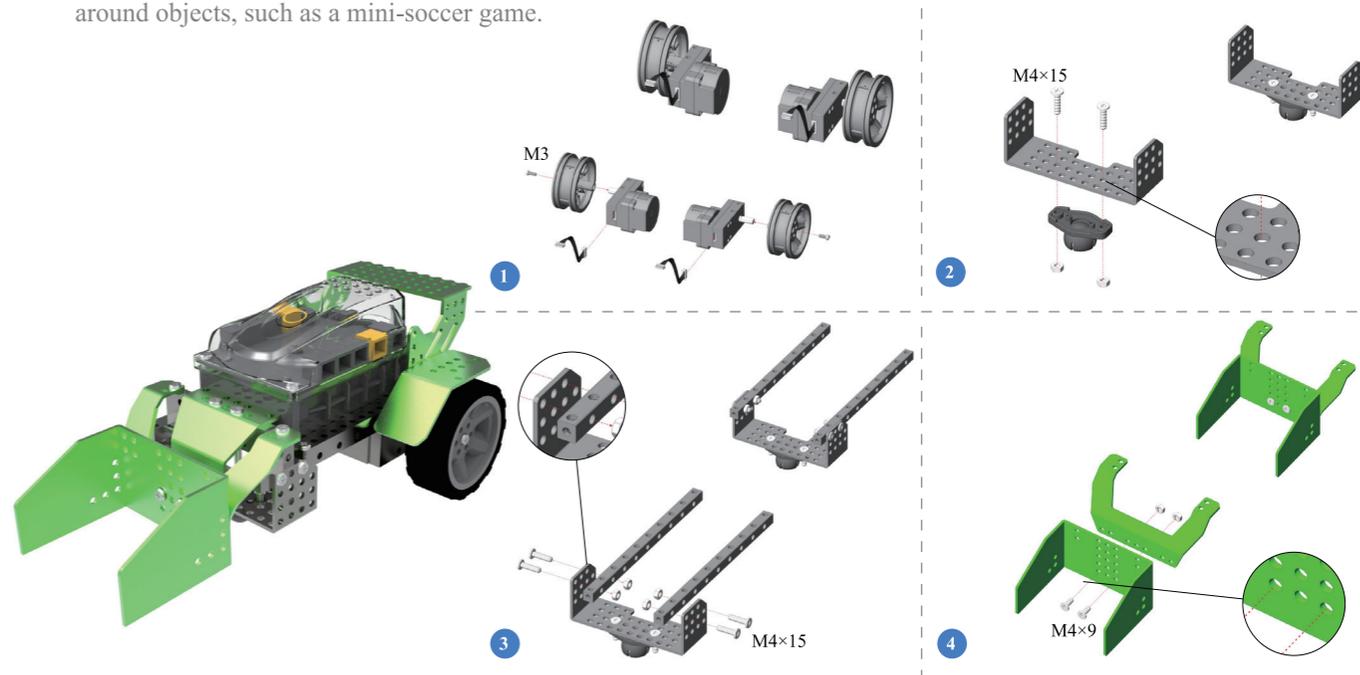
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04 Assemble Qoopers | The Dozer

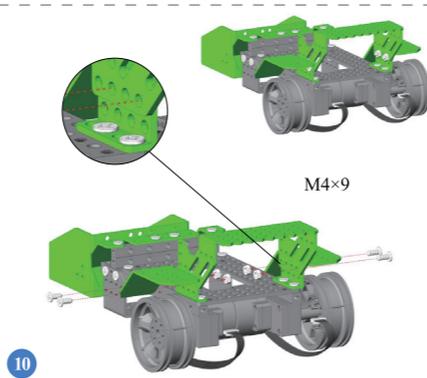
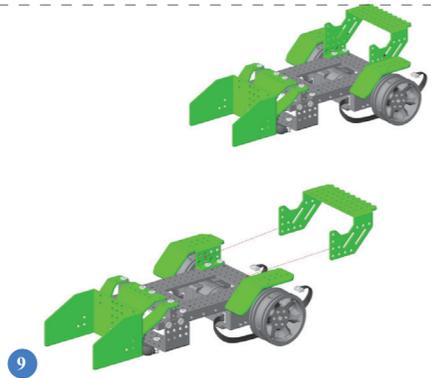
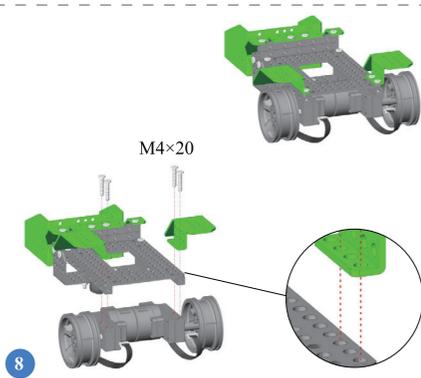
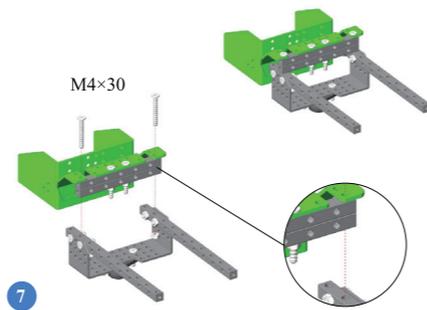
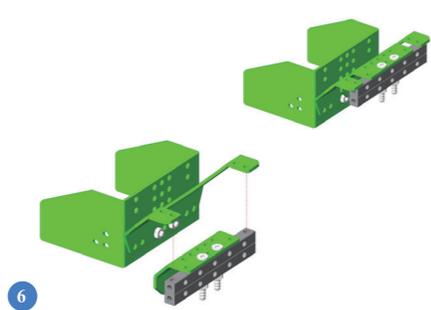
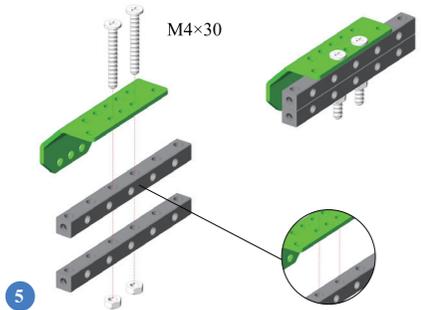
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The combination of a wheeled bulldozer, a powerful steel shovel and a great deal of flexibility allows you to maneuver it around objects, such as a mini-soccer game.



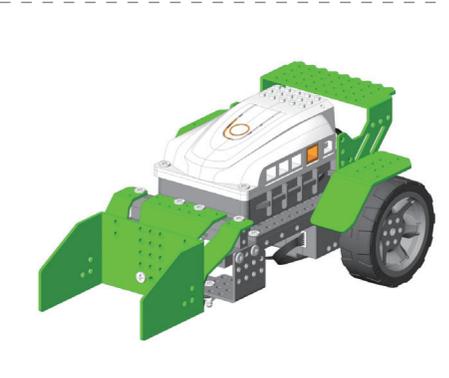
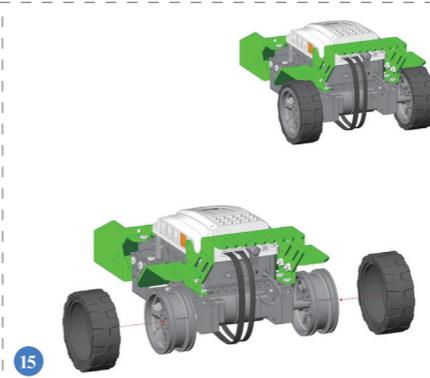
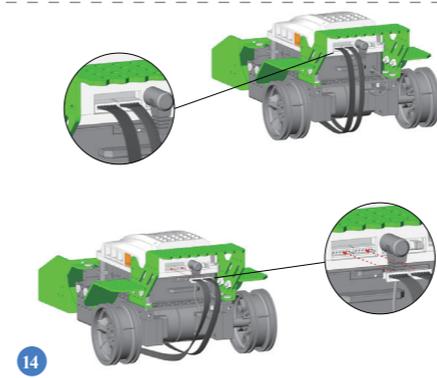
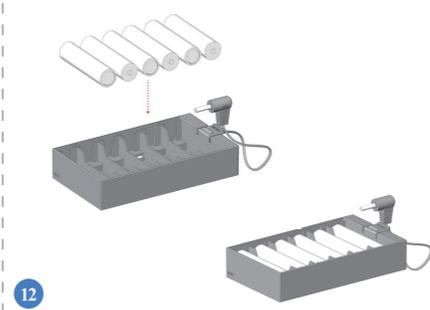
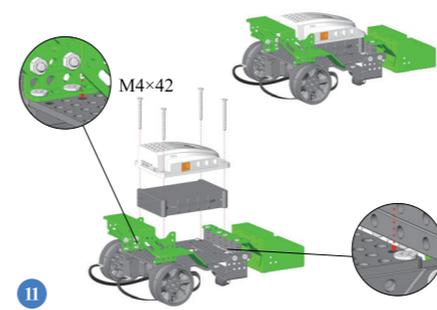
Assemble Qoopers | The Dozer

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Assemble Qoopers | The Dozer

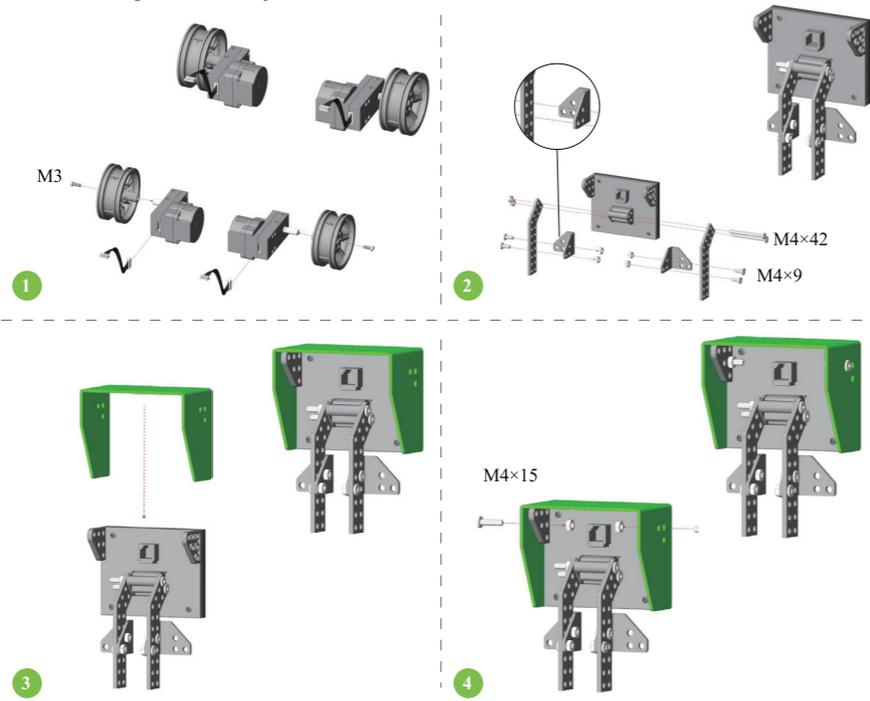
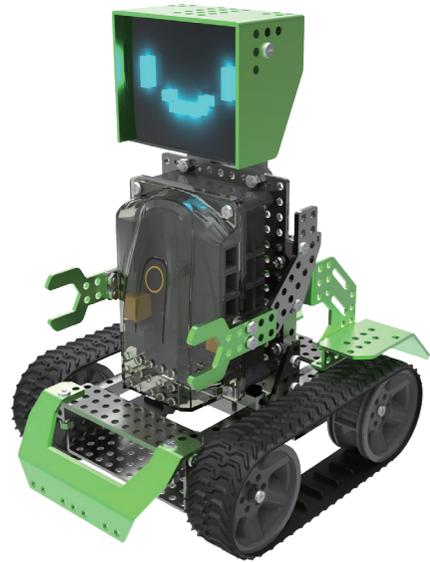
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• 05 Assemble Qoopers | The Cavalier

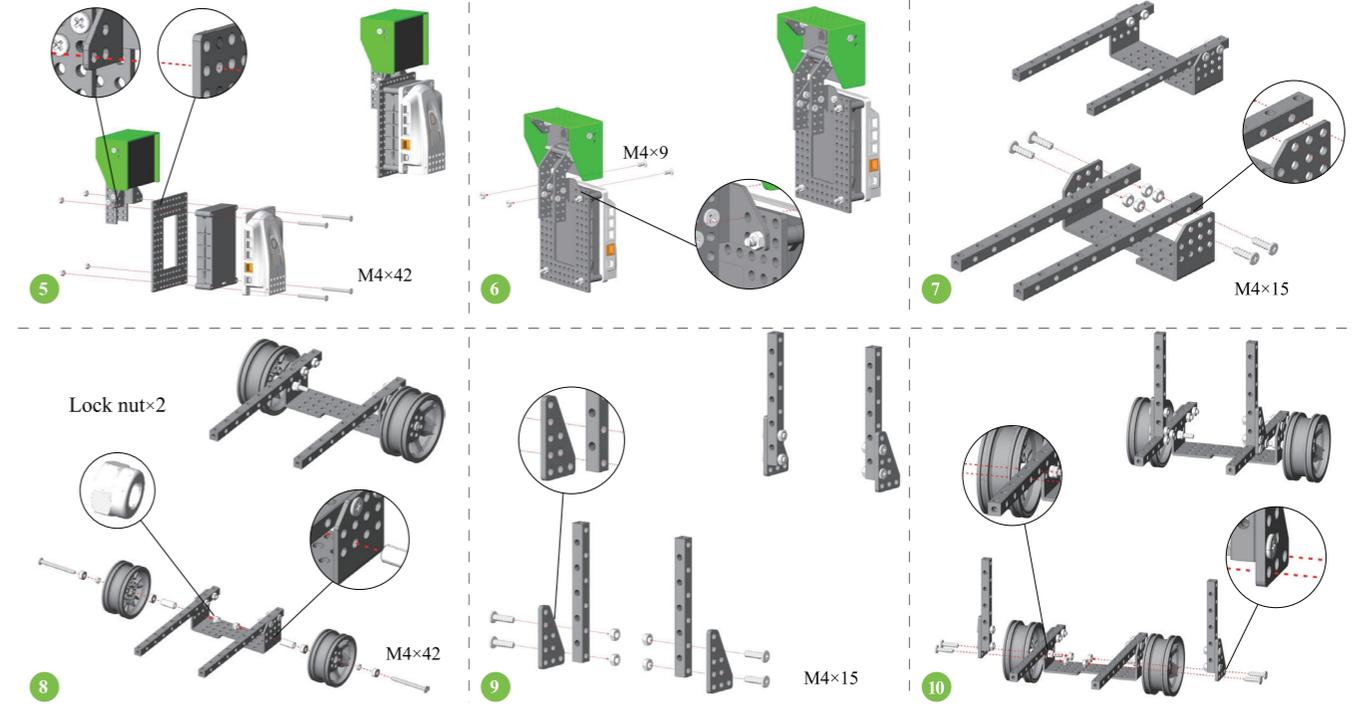
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Tracked Cavalier, armed with iron and steel and snipe the enemy with its smile, has remote control mode.

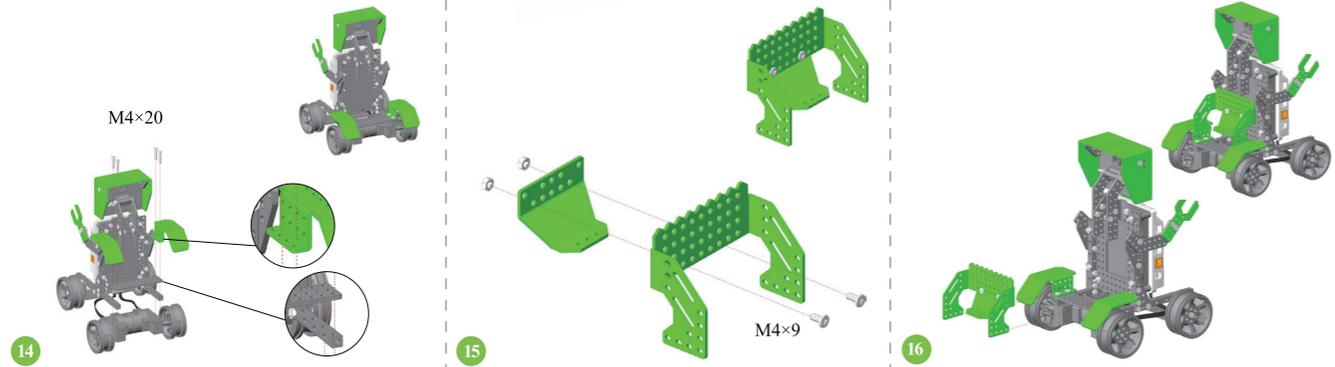
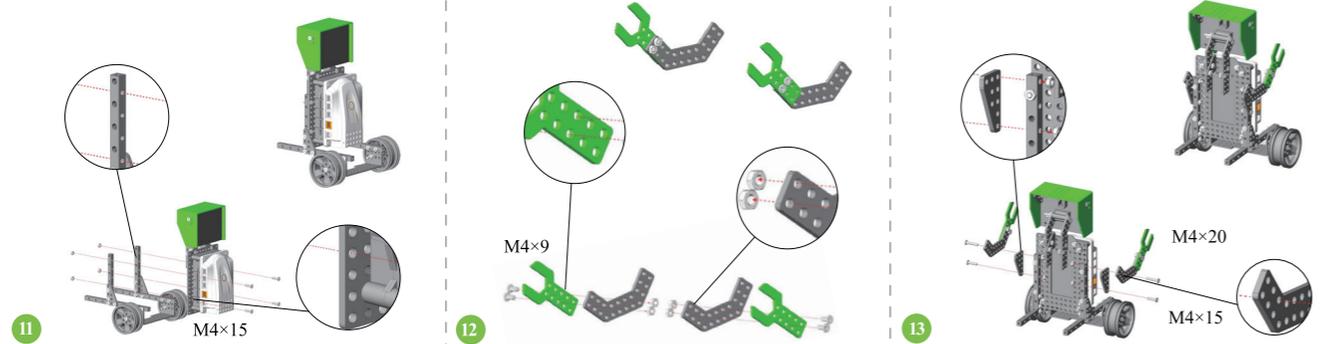


Assemble Qoopers | The Cavalier

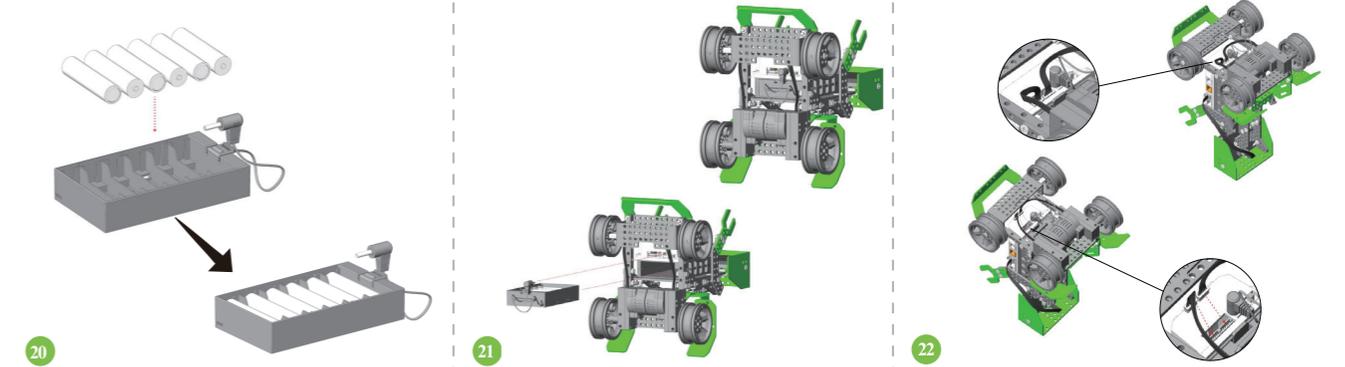
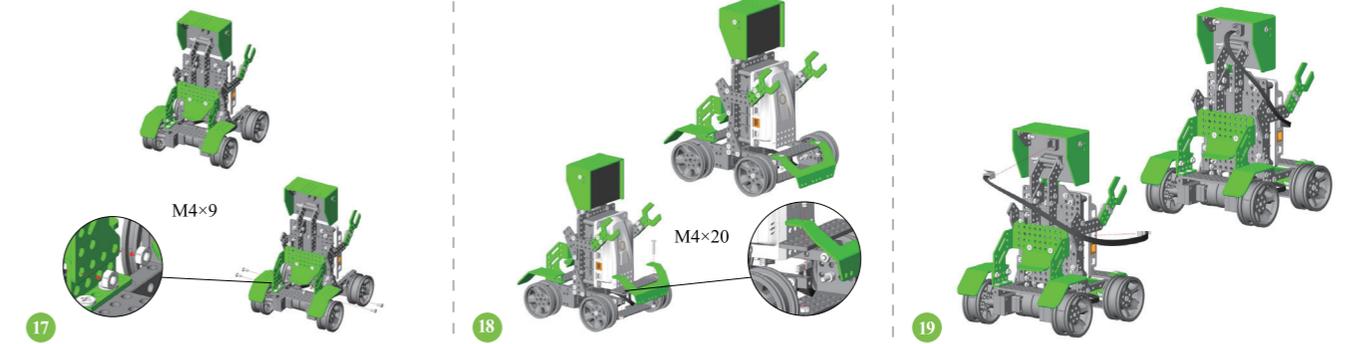
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Assemble Qoopers | The Cavalier

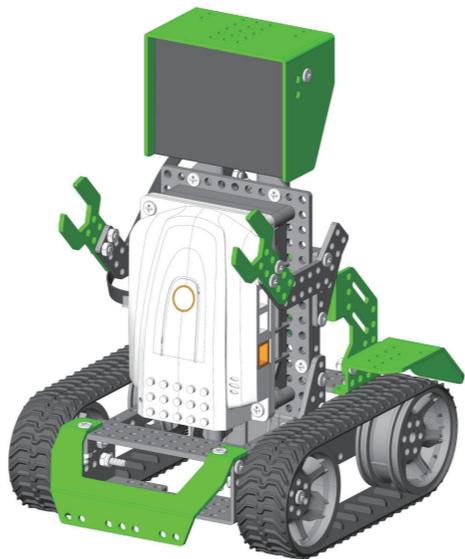
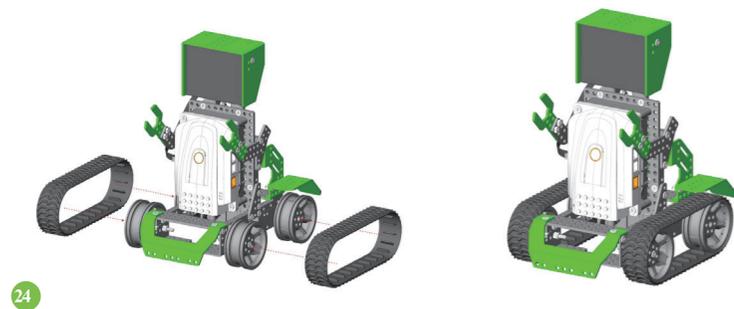
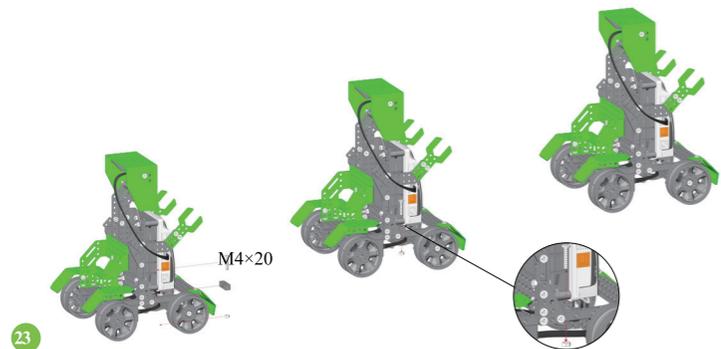


Assemble Qoopers | The Cavalier



Assemble Qoopers | The Cavalier

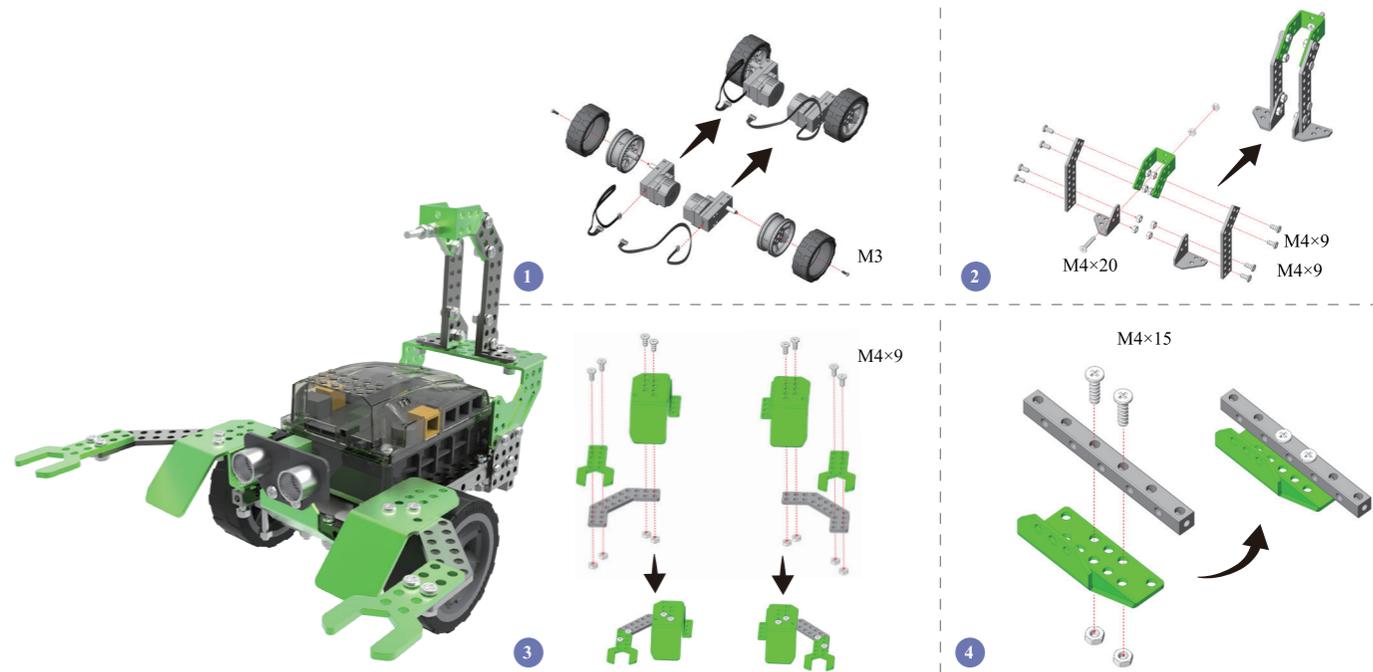
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06 Assemble Qoopers | Scorpoid

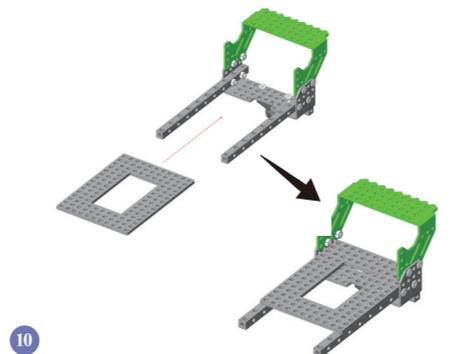
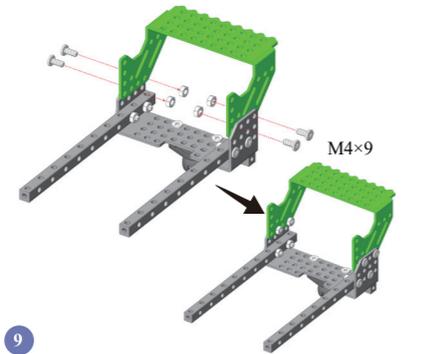
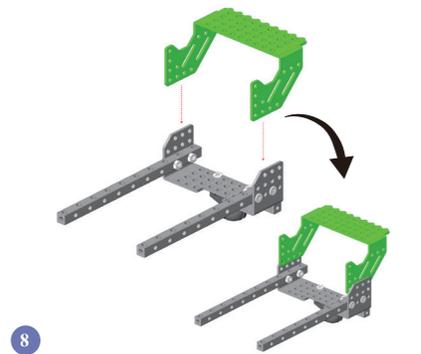
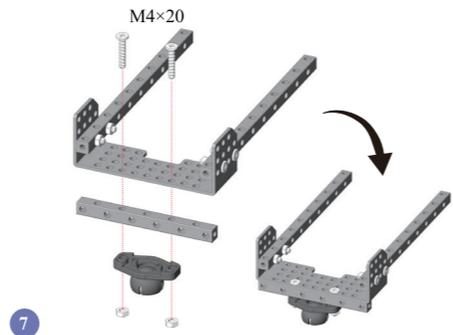
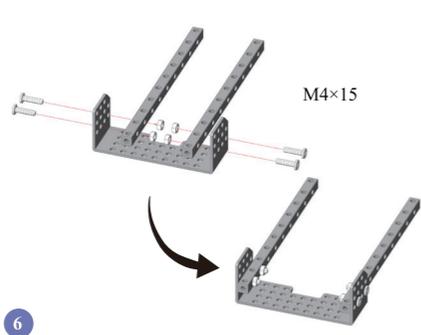
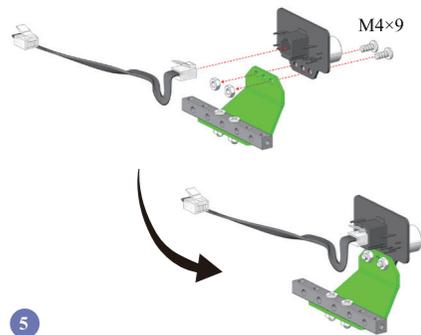
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The ultrasonic module is used for obstacle recognition to realize automatic obstacle avoidance patrol.



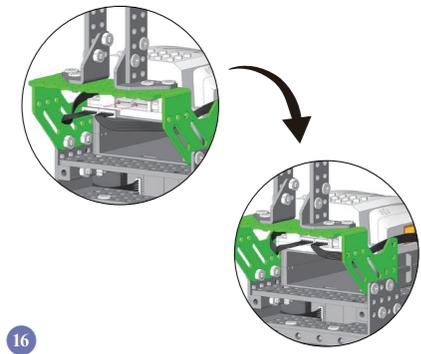
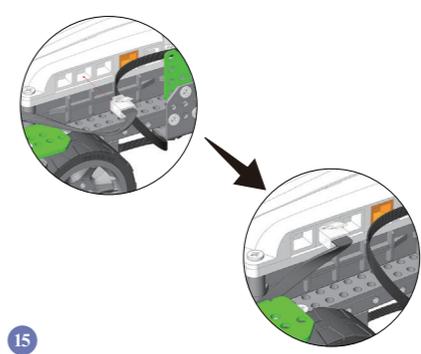
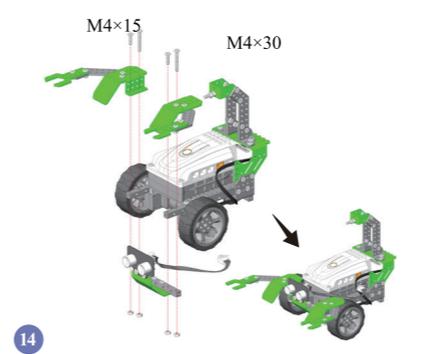
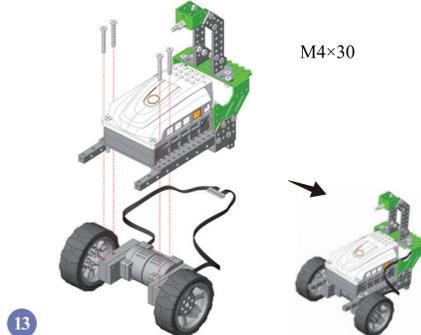
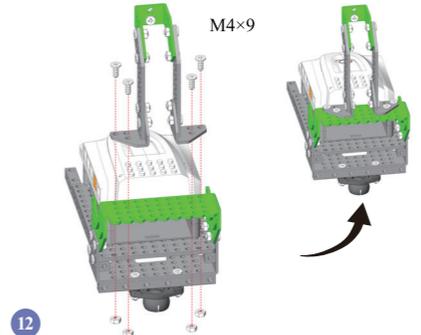
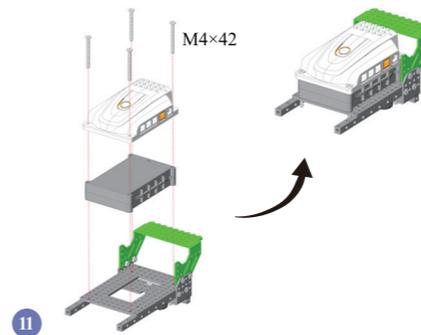
Assemble Qoopers | Scorpoid

2/4



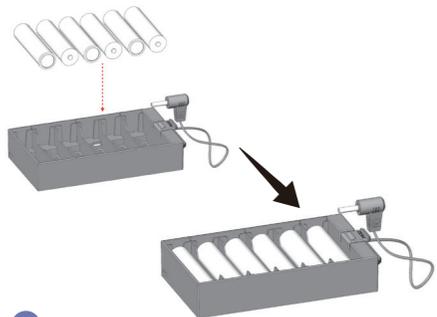
Assemble Qoopers | Scorpoid

3/4

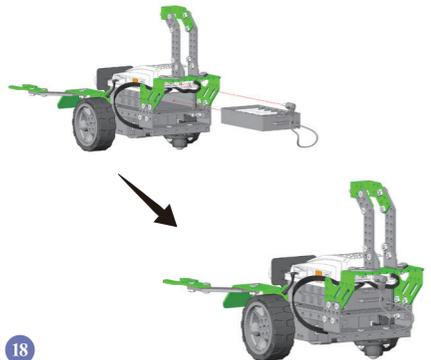


Assemble Qoopers | Scorpoid

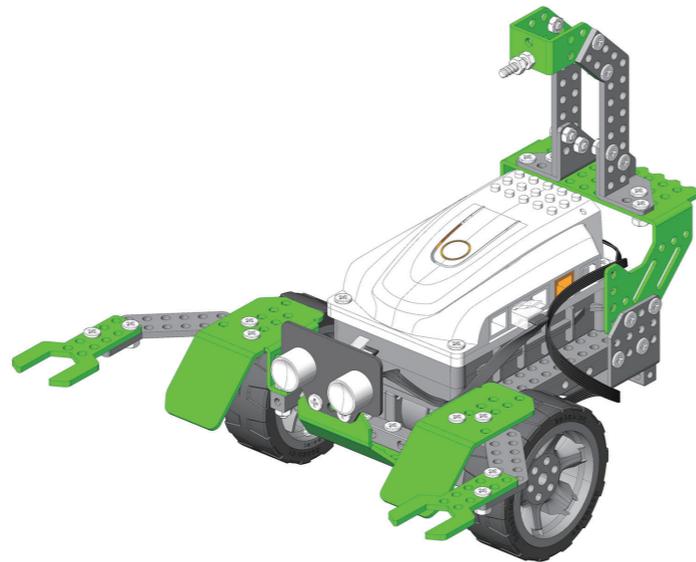
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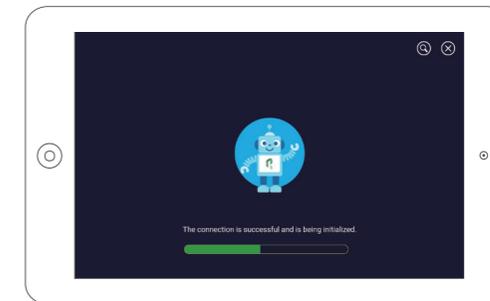
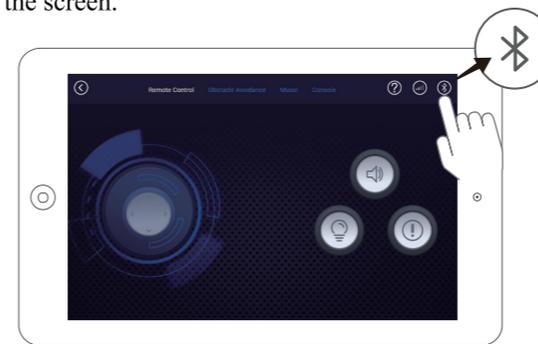
How to use the app (Android & iOS)

1. Download the Robobloq app to a mobile device: Search for "Robobloq" on your device's app store or scan the QR code below.



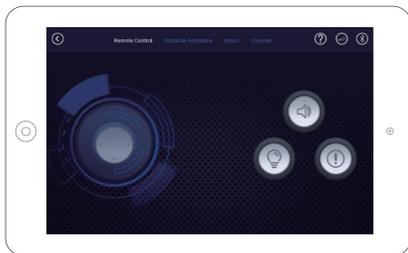
(Supports iOS 7.0 and Android 4.3 or higher, and Bluetooth 4.0)

2. Turn on the power switch of the robot, open the Robobloq app, and then tap the Bluetooth icon at the top right corner of the screen.

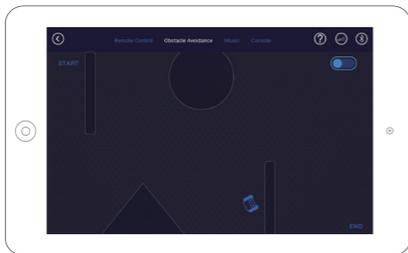


3. Once the device is connected to the robot via Bluetooth, you can control the robot.

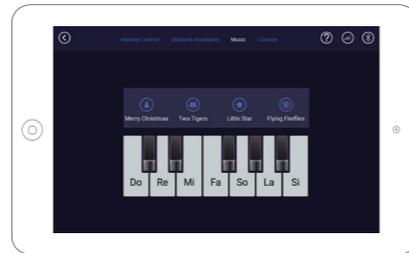
A. There are 3 modes of control: Remote Control, Obstacle Avoidance, and Music



 Remote Control Mode



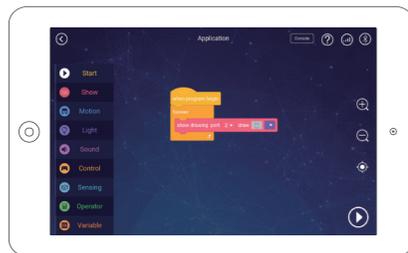
 Obstacle Avoidance Mode



 Music Mode

B. Programming

Open the app > tap Application > Create program and drag the programming blocks to start programming the robot. Once you are done, tap the "Play" icon at the bottom right corner of the screen and watch the robot perform the actions according to the instructions you programmed!



How to program Qoopers using the PC software

MyQode is a graphical programming PC software platform specially designed for Robobloq robots. You can learn how to program the robot using the MyQode platform and download the programs that you have written onto your Qoopers.

1. Visit www.robobloq.com/software/download to download the MyQode version suitable for your PC.
2. Connect your Qoopers to your computer via a USB cable. Next, click Help-> Install Serial Driver to install driver. Make sure that your Qoopers is displayed as "Online" status on the MyQode platform. Now you are ready to transfer what you have written to your Qoopers.



Specifications

Product	Qoopers	Input	Button x1, Ultrasonic sensor x1
Forms	6	Output	Buzzer x1, RGB LED x2, 14x10 LED Martrix x1
Control Board	Arduino mega2560	Battery	6 AA batteries (not included in the kit)
Motor	520 Encoder Motor	Software	RobobloqAPP, MyCode, Arduino IDE
Communication	Bluetooth 4.0+	Weight	1900g
Extension	6 sensor ports, 2 motor ports		

Robobloq also has a rich sensor ecosystem, including: light sensitive, sound, gyroscope, color, RGB LED, multipath, temperature and humidity, PIR, MP3 modules and more than 30 kinds of sensors and electronic modules, to support the functional expansion and robot programming learning of the Q series metal robots. You can learn more about the sensors at Robobloq's website.



FAQ

For more information, please visit: wiki.robobloq.com

1. When I try to connect my Qoopers via Bluetooth using the Robobloq app, a "Bluetooth connection declined" message is shown on my mobile device:

This happens when you try to connect to the robot by searching for Bluetooth devices using your mobile device. Open the Robobloq app and tap the Bluetooth icon at the top-right corner of the screen. Place the mobile device within 10-20 cm from the robot and a connection will be automatically established.

Note: Go to the Bluetooth settings of the Robobloq app to connect the robot, not the Bluetooth function of the mobile device.

2. I tried to connect my robot via Bluetooth using the Robobloq app at least 4-5 times, but it keeps saying "Bluetooth connection declined":

- Check if the mobile device's "Location services" is enabled. Once it is enabled, tap the Bluetooth icon in the app to try connecting to the robot again. Generally, this should resolve the issue.
- Try downloading the latest version of the Robobloq app and see if the issue is resolved. You can search for "Robobloq" in a mainstream app store to download or update it.

3. What is the "BLE" button next to port 1 of the control board 1 used for?

The "BLE" button is for Bluetooth connection. If a mobile device cannot directly connect to the robot, press the "BLE" button and the robot will search for the mobile device and establish a connection.

4. I have already connected my robot via the app's Bluetooth setting, but why doesn't it move when I use the Remote Control functions?

- Try testing the other functions first: Use the app to control the lights and sound. If there is a current sound from the motor, but the robot is not moving, there are 3 ways to resolve this:
- Batteries: The voltage provided by the batteries is insufficient. Some of the AA batteries may be too weak. Try replacing them with higher quality AA batteries. If you are using lithium batteries, try charging them first.
 - Mechanical issue: The Driving Wheel or Driven Wheel of the Qoopers may be too tight, preventing them from rotating properly. Solution: Try using the Wrench and Screwdriver in the kit to loosen the Lock Nut on the front wheels. Try spinning the wheels by hand to see if they can move freely.
 - The initial speed is too low: Due to friction and other reasons, we recommend that when programming you should set the robot speed to at least 45 to ensure that the robot can move.

5. When I use the app to try to make my robot move forward why does my robot move backward instead?

This may be caused by incorrect connection of the left and right motors. Try switching the connection of the two motors.

Notes & Safety

Warning:

- Please only use the kit with adult supervision and assistance.
- The kit contains small parts. Please keep the kit away from the reach of any child at the age of 3 or younger to prevent choking hazard.
- Please try to only use the kit on a dry and even floor in an indoor environment and avoid contact with any liquid.
- Please do not pull any wires inside the kit with force. Please replace any worn-out wires before use.

Notes:

- Batteries are not included in this kit. For better results, please use high-performance alkaline or NiMH rechargeable dry batteries. Please read the instructions on the batteries carefully before use.
- The batteries should be properly disposed after use and should not be thrown near a heat source or buried underground.
- When not using the robot for a prolonged period of time, disconnect the robot from the power source.
- Before turning on the power switch of the robot, check to ensure that all wires are connected correctly. Incorrect connections may damage the robot.
- Please ensure that the moving parts of the robot, such as the motors and steering gears, are unobstructed. Obstruction may cause a motor to overheat or even damage the motor.
- After operating the robot for a period of time, the screws may become loose. Please check and tighten them if necessary.
- When cleaning the robot, please first disconnect the robot from the power supply and then use a soft, dry cloth to clean the surface of the robot.

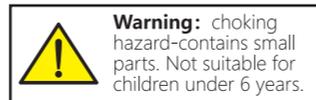
Qoopers

FCC ID:2AOHL-RB00001

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Manufacturer: RoboBloq Co., Ltd. Made in China

Model No.: RB-00001



There no restrictions of use.
MADE IN CHINA

About Robobloq

Based in Shenzhen, China, Robobloq is a high tech pioneer in Edtech solution development. We are dedicated to providing integrated solutions including STEM learning tools, teaching materials, robot competitions and international exchanges for educators worldwide. Robobloq empowers kids and students to develop hands-on abilities and coding skills, bringing their innovative ideas to life.

