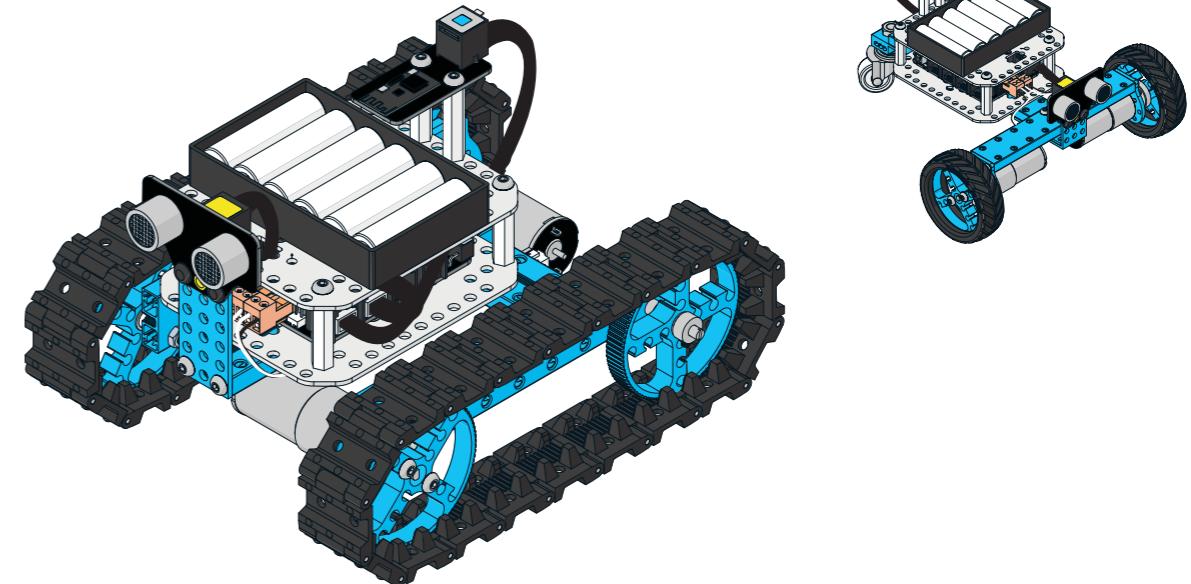




# Starter Robot Kit Bluetooth Version

Robot Tank

Three-Wheeled Robot Car



MAKER WORKS TECHNOLOGY INC

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Xixiang Sub-district, Bao'an District, Shenzhen, 518102 China.

Please contact with us if you need some  
technique support: [support@makeblock.cc](mailto:support@makeblock.cc)  
[www.makeblock.cc](http://www.makeblock.cc)

# Parts List

Pictures for reference only

1× Beam 0824-96



1× Beam 0824-128



2× Beam 0824-144



1× Bracket 3×3



1× Plate 3×6



1× Bracket P3



1× Caster Wheel



2× DC Motor-25 Bracket



2× Shaft Connector 4mm



4× Timing Pulley 90T



2× Tire 68.5×22mm



38× Track



38× Track Axle



2× Threaded Shaft 4×39mm



2× Shaft Collar 4mm



4× Flange Bearing 4×8×3mm



2× BaseBracket



1× Battery Holder for (6) AA



1× Hex Screwdriver



1× Cross Screwdriver



2× Hex Allen Key



1× Wrench



22× Screw M4×8



14× Screw M4×14



3× Nut M4



1× Nut M8



4× Headless Set Screw M3×5



4× Screw M3×8



6× Nylon Stud M4×30



4× Plastic Rivet R4060



4× Plastic Rivet R4120



4× Plastic Ring 4×7×2mm



2× DC Motor-25



1× Makeblock Orion



1× Me Ultrasonic Sensor



1× Me Bluetooth Module



1× Micro USB cable



1× 6P6C RJ25 Cable-20cm

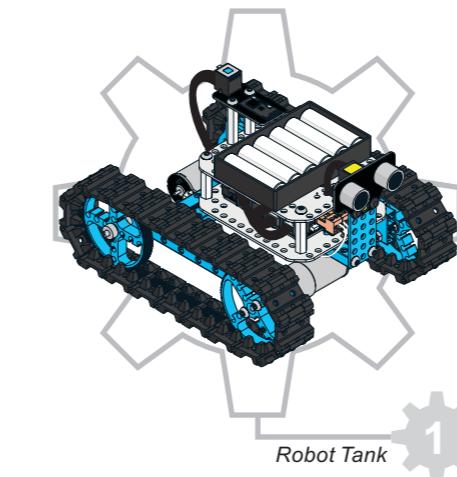


1× 6P6C RJ25 Cable-35cm

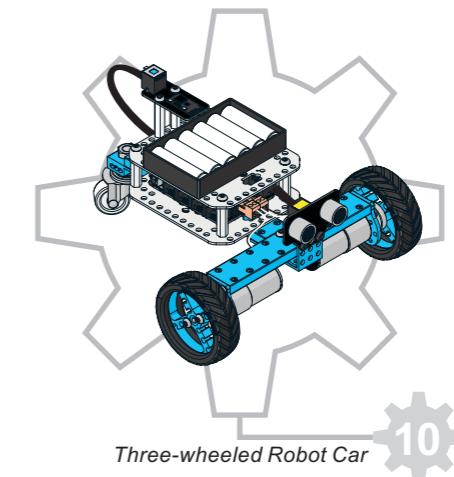


Please visit  
<http://learn.makeblock.cc/starter robot kit/>

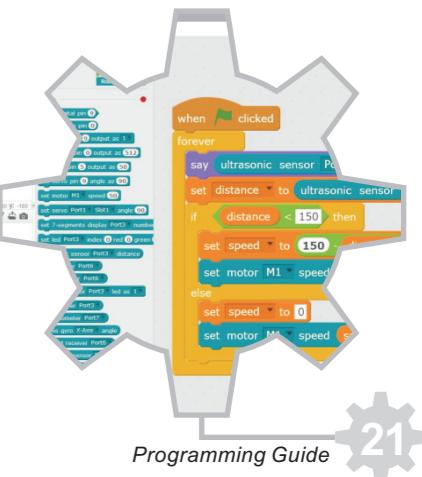
to view the programming guide.



1

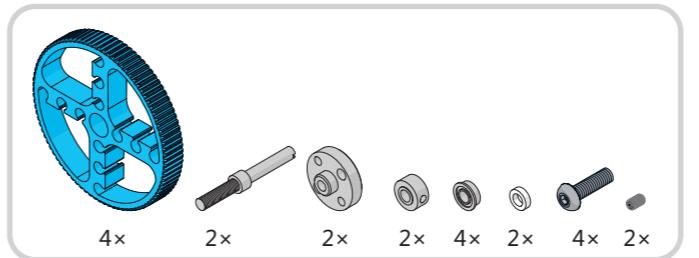
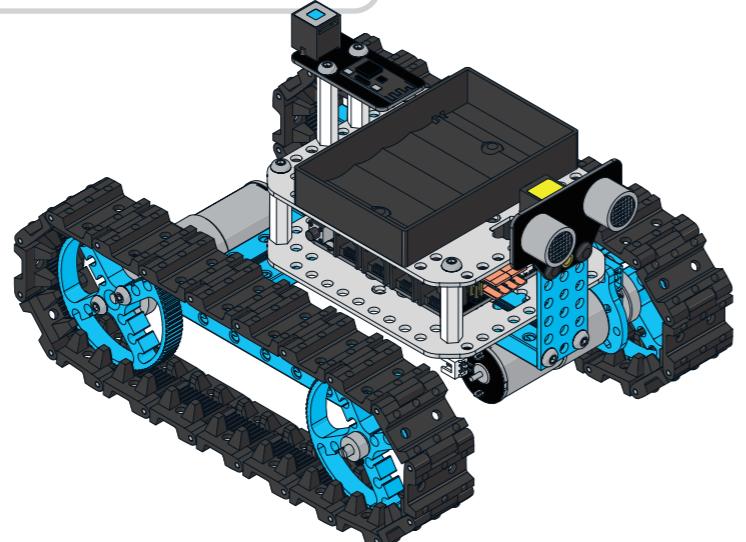
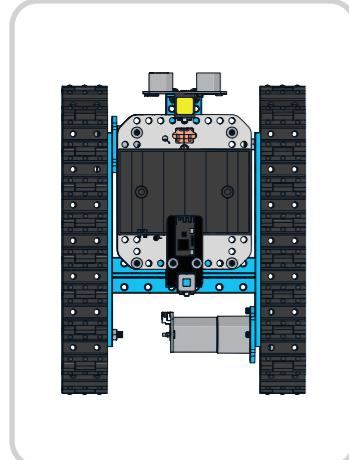
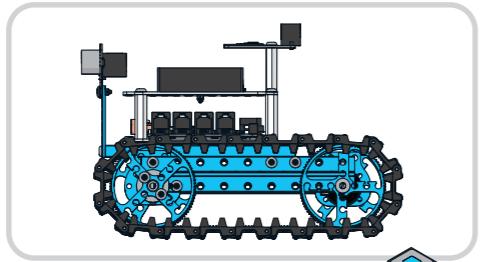
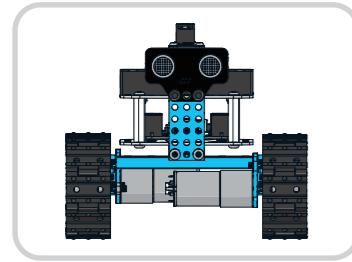


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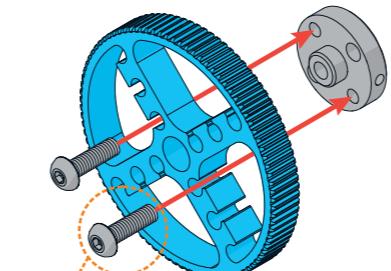


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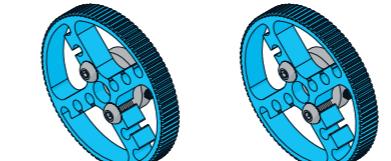
# Building the Robot Tank



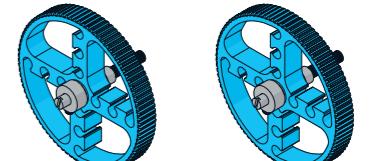
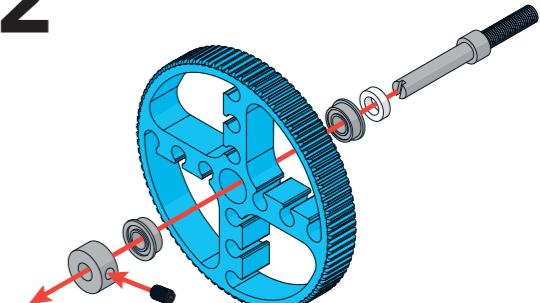
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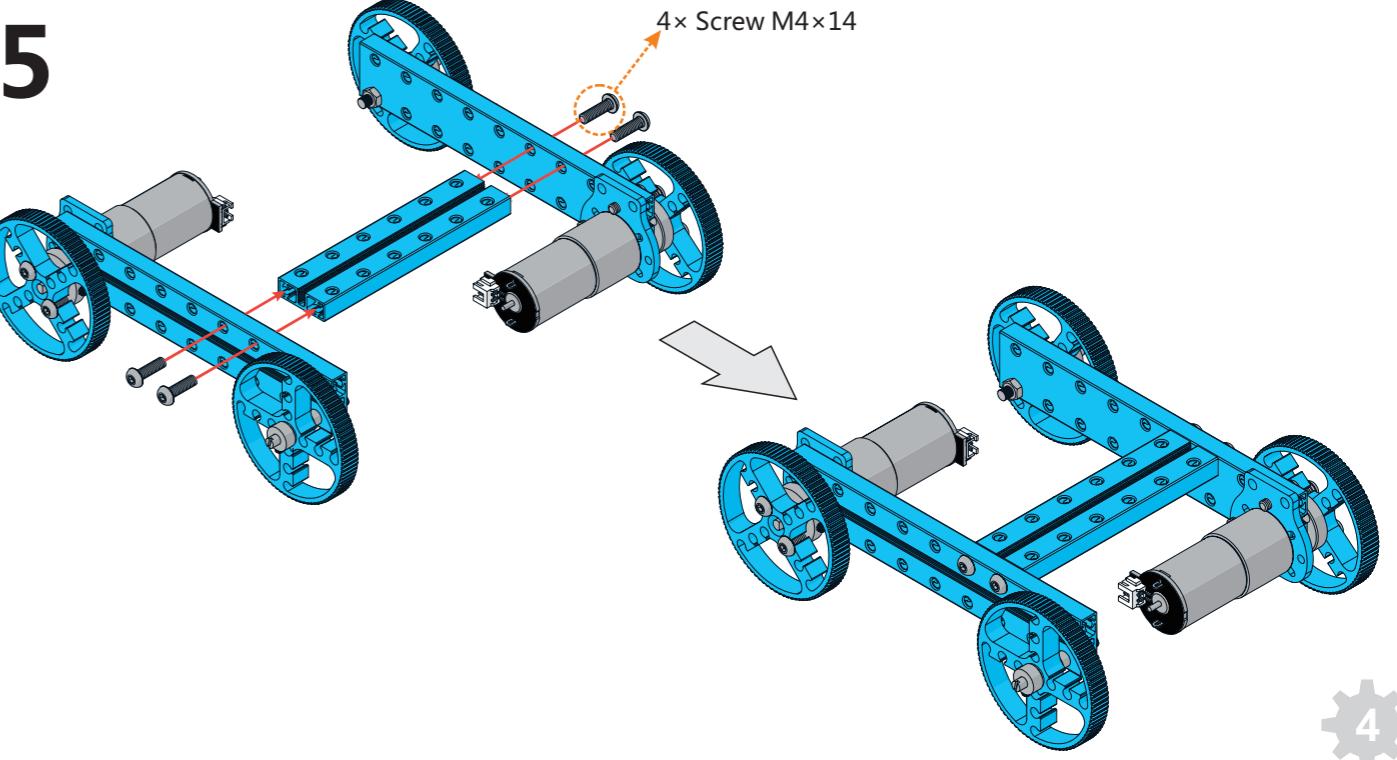
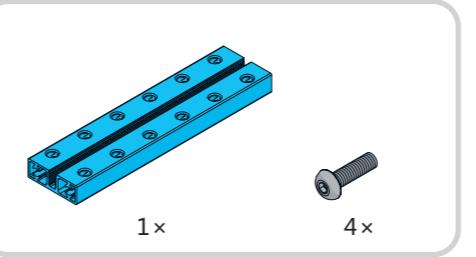
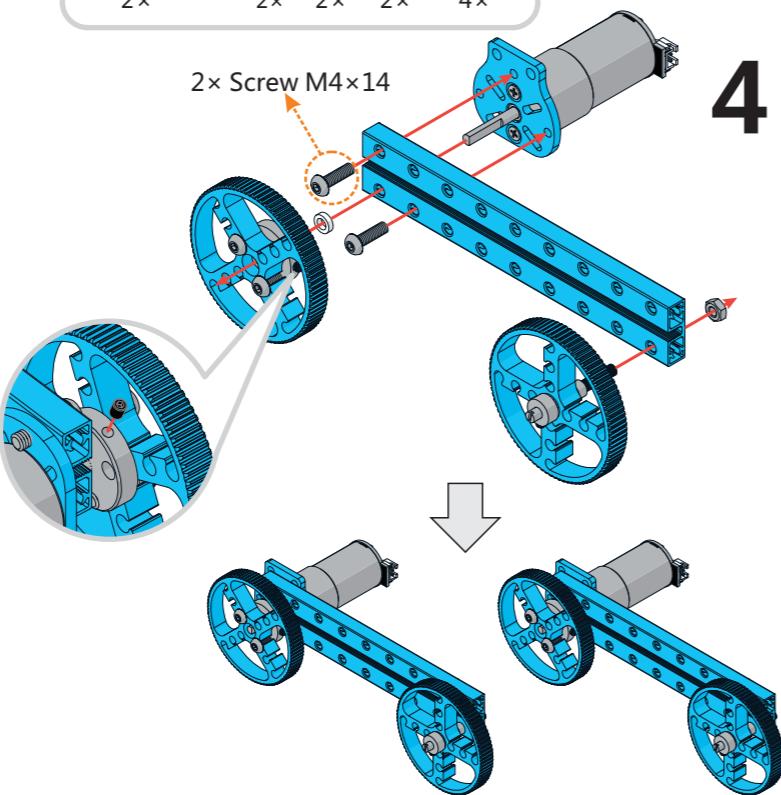
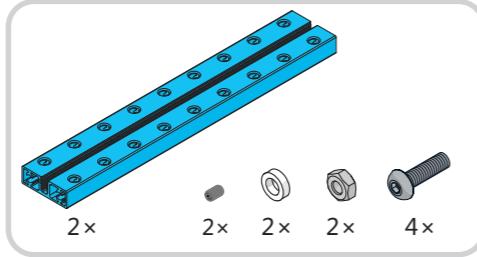
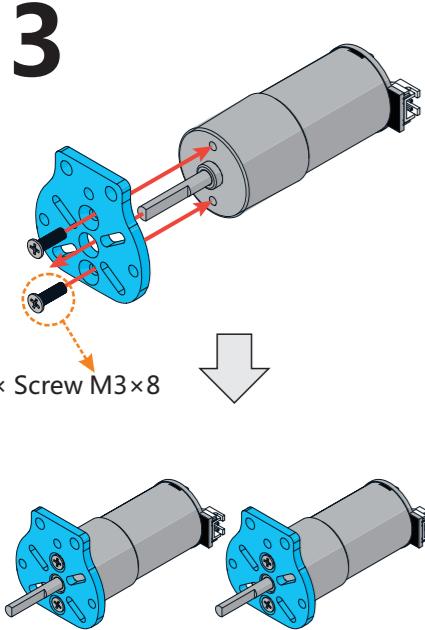
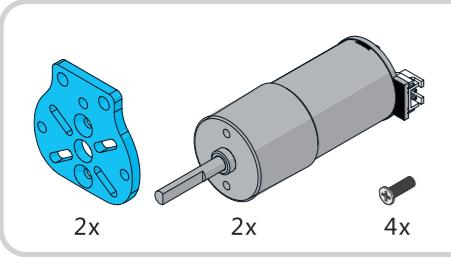
2x Screw M4x14

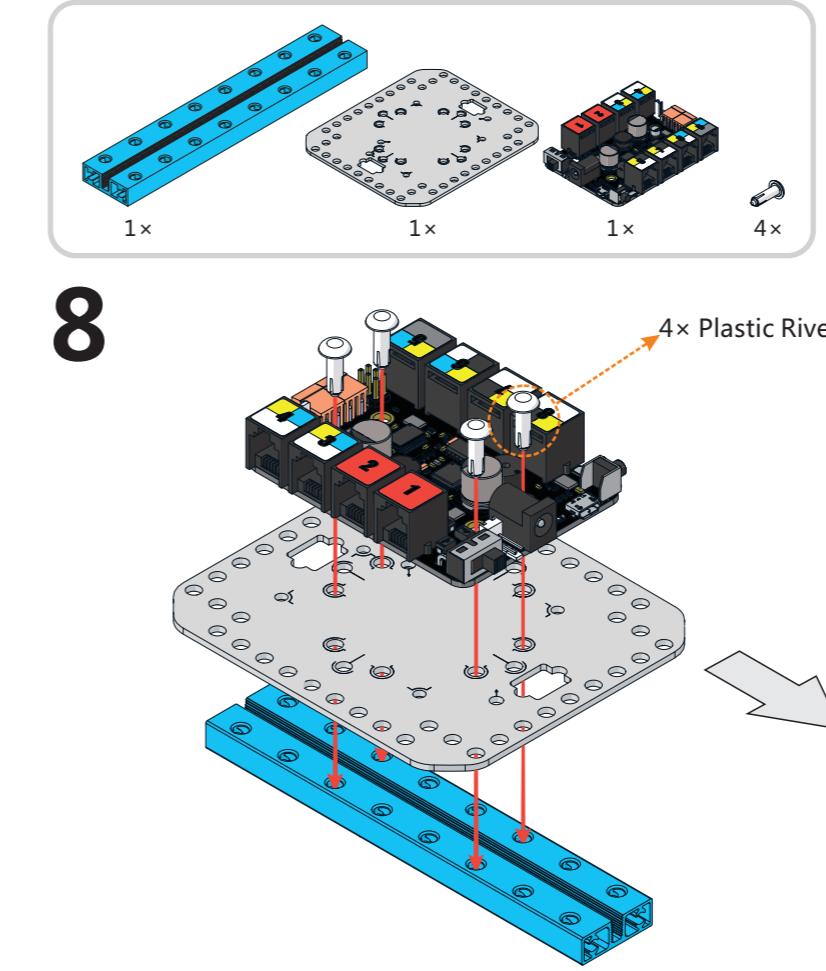
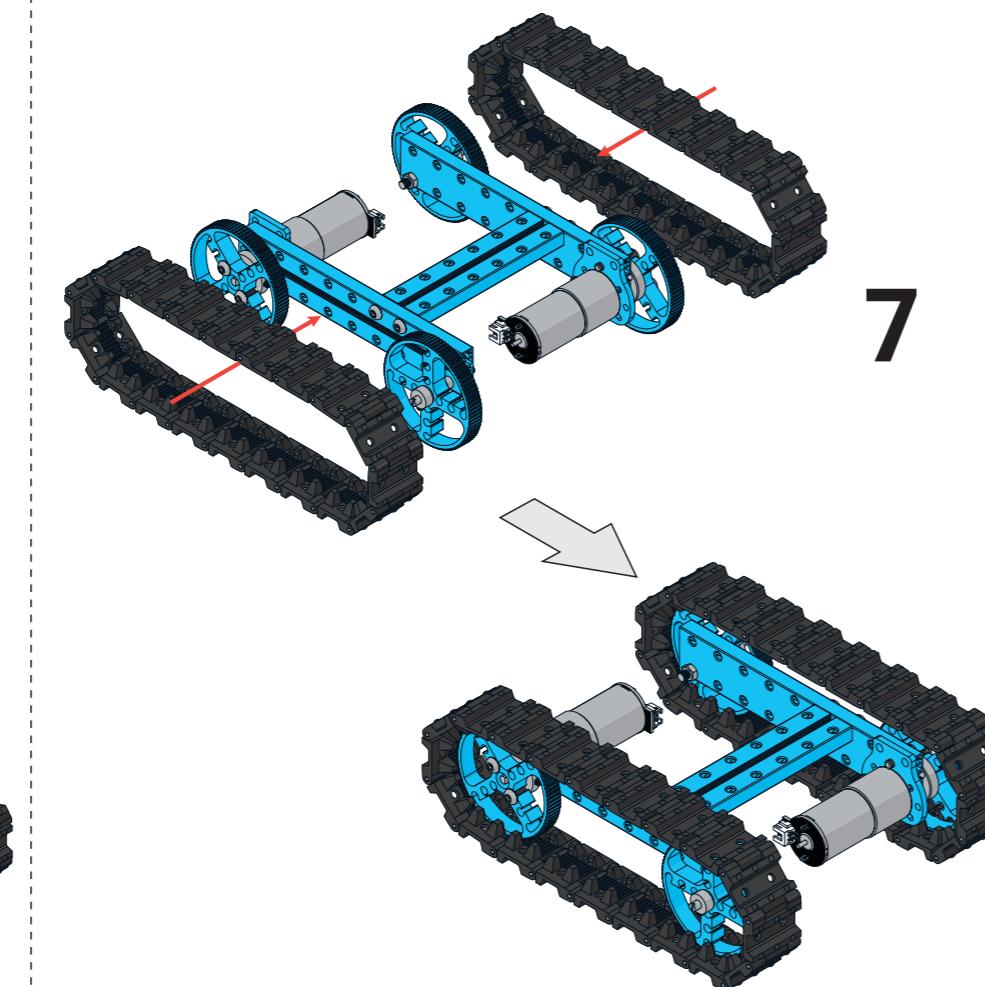
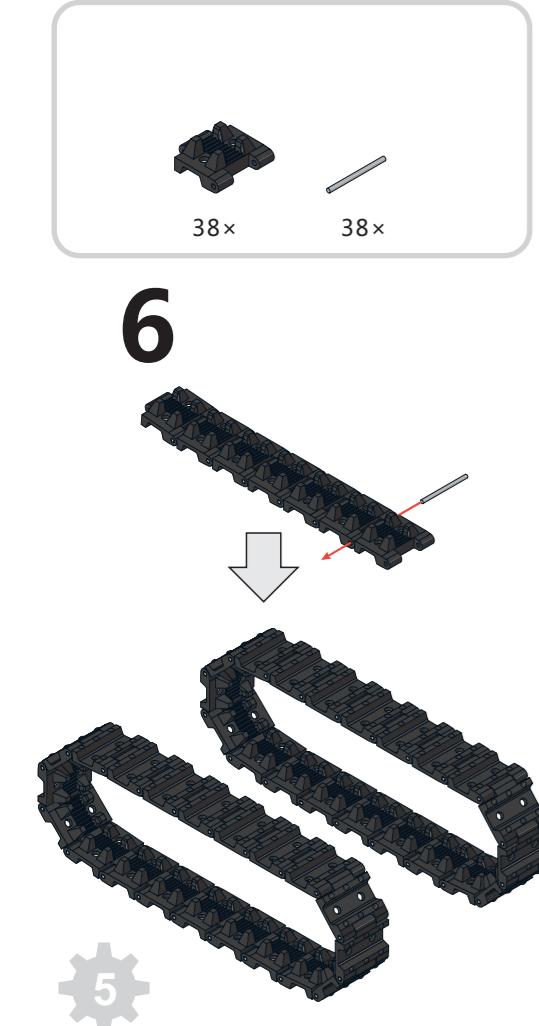


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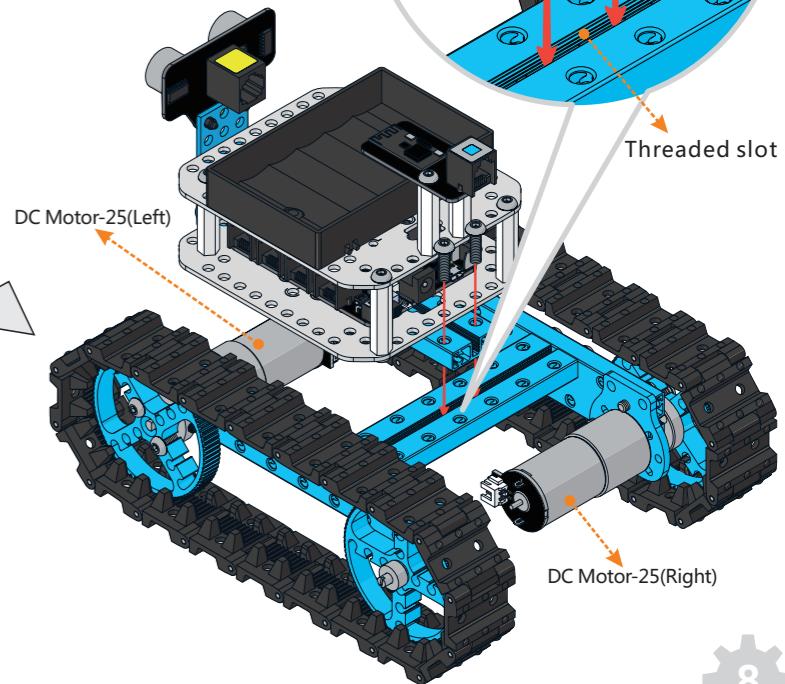
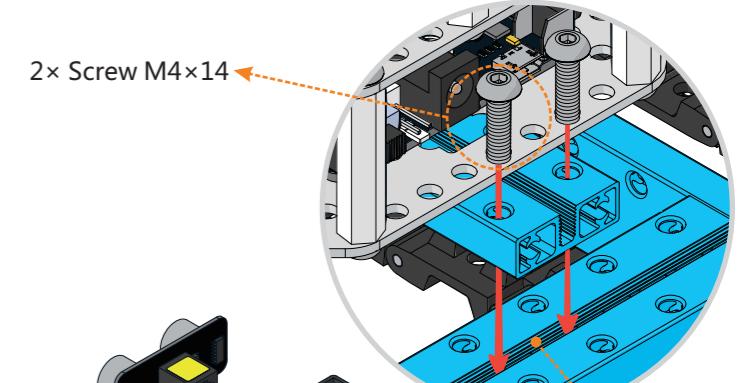
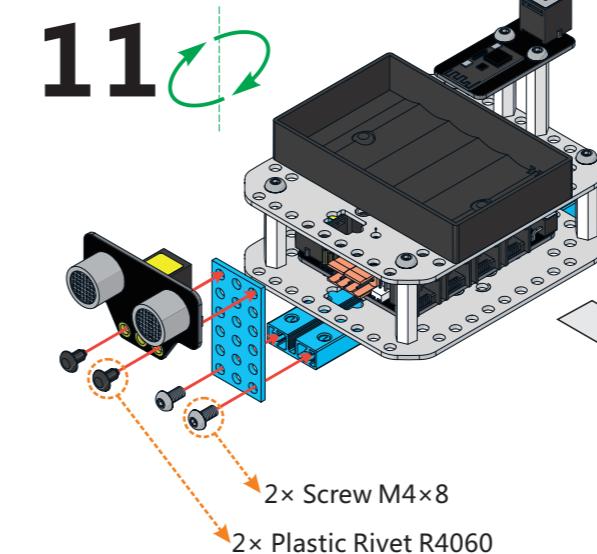
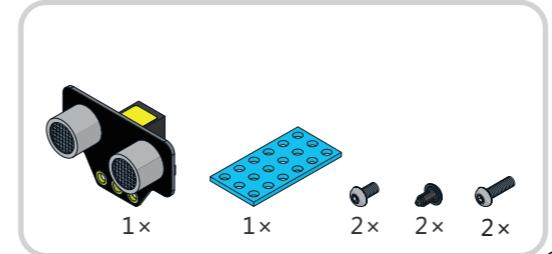
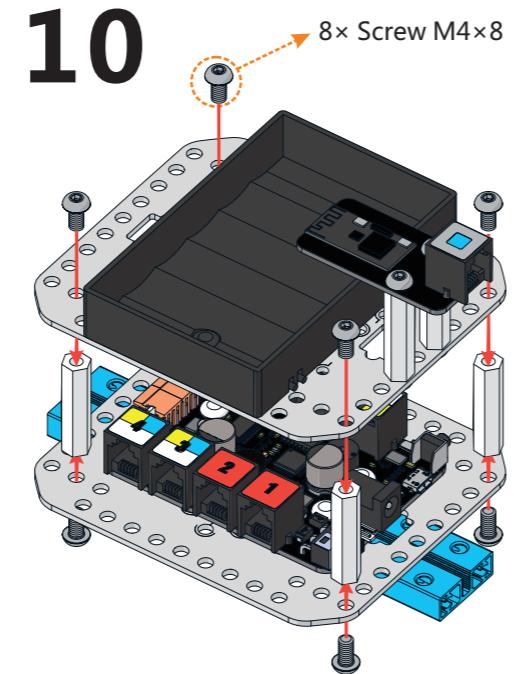
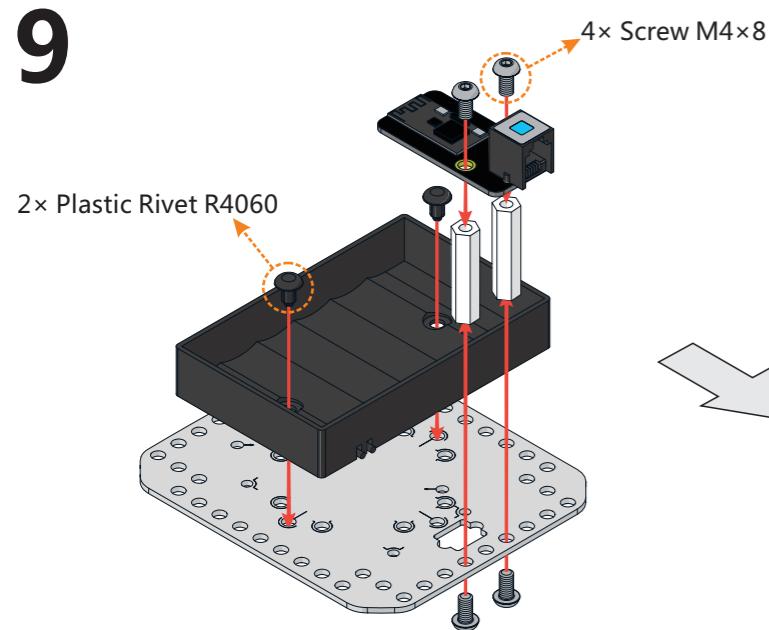
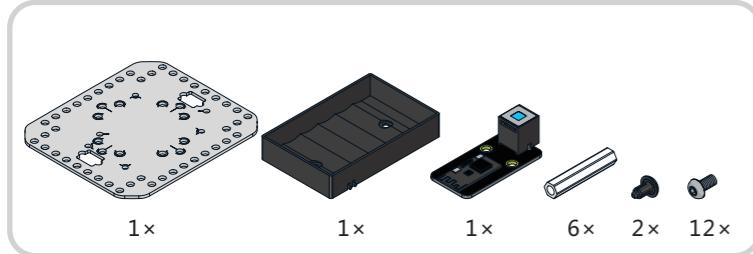


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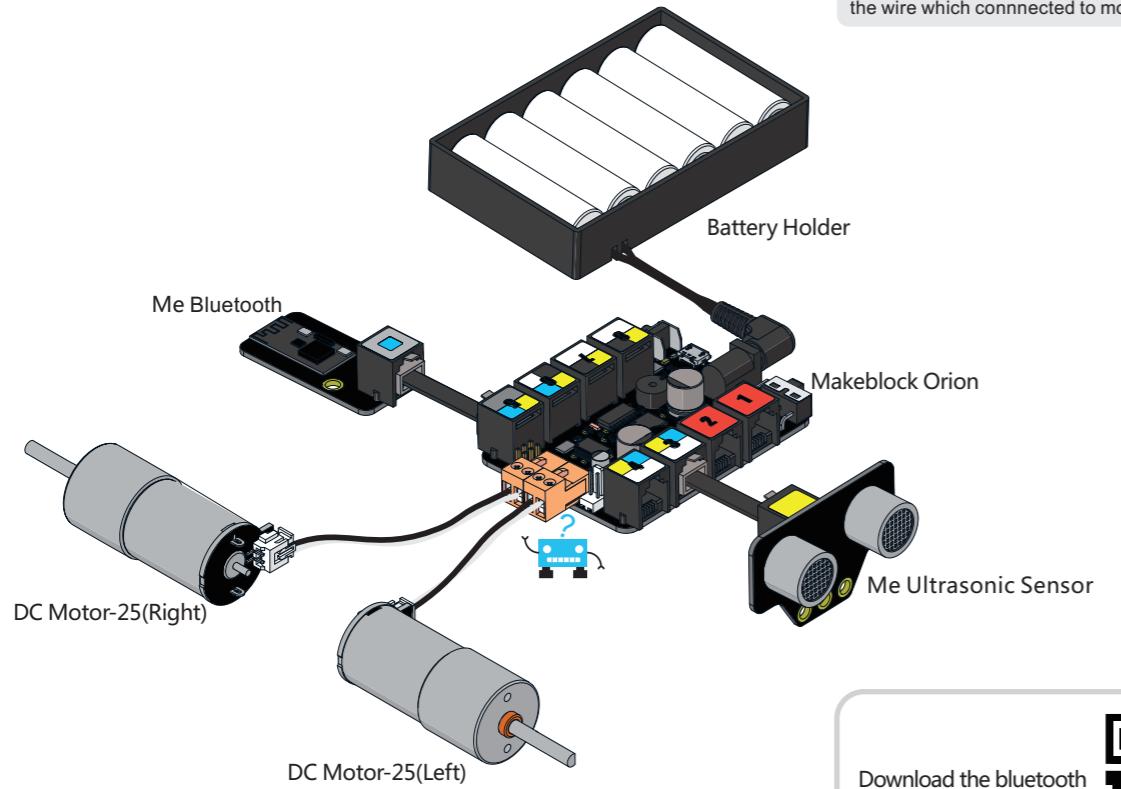




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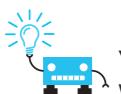
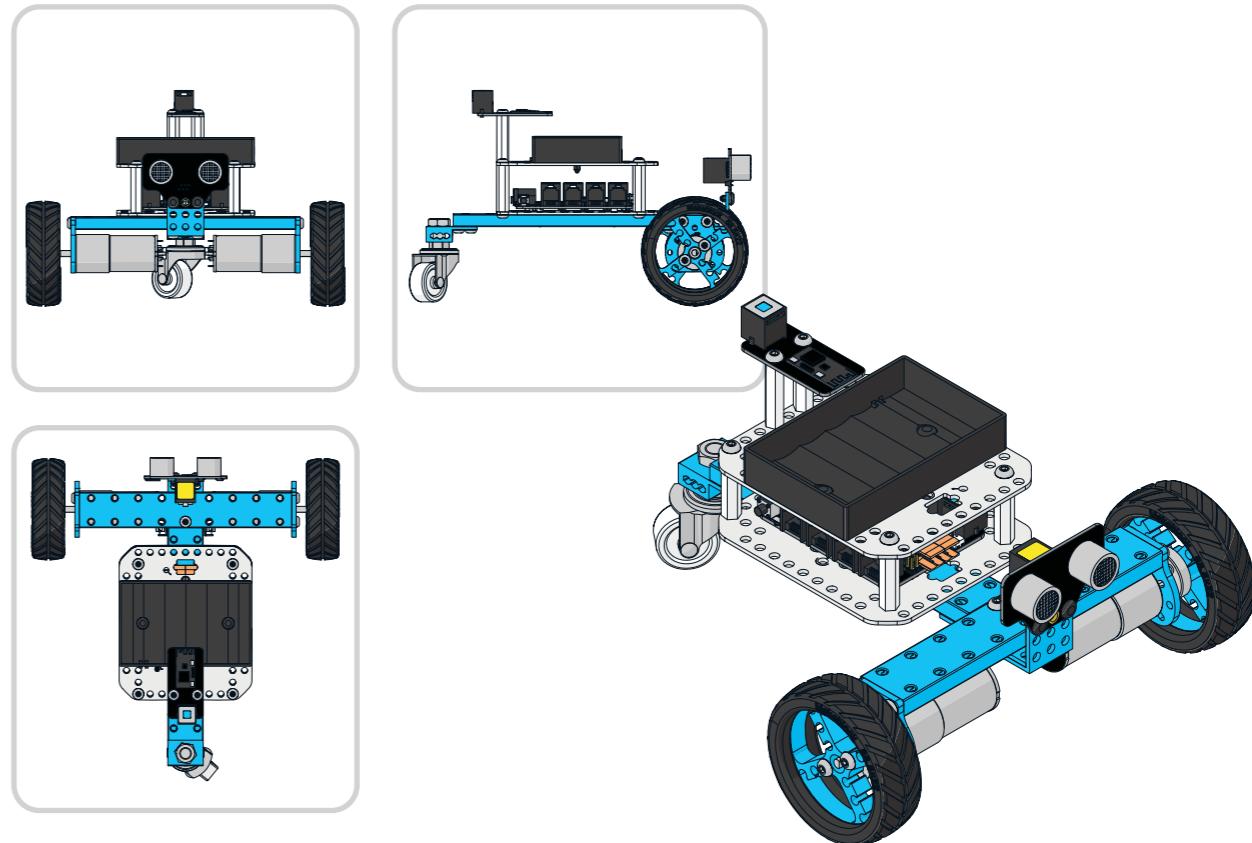


## Wiring and Programming



To reduce the electromagnetic interference,  
Please consider to add the magnetic ring to  
the wire which connected to motors.

## Building the Three-Wheeled Robot Car

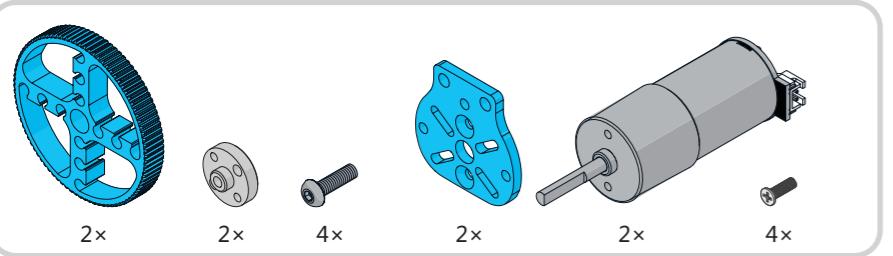


You may need to switch the order of two  
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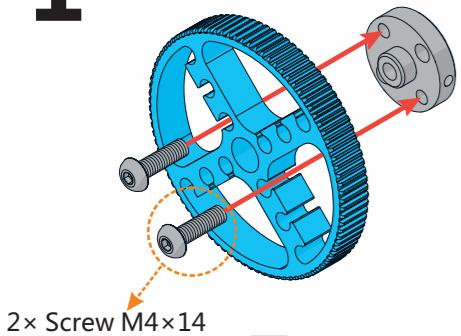


Download the bluetooth  
control App by scanning  
the QR code

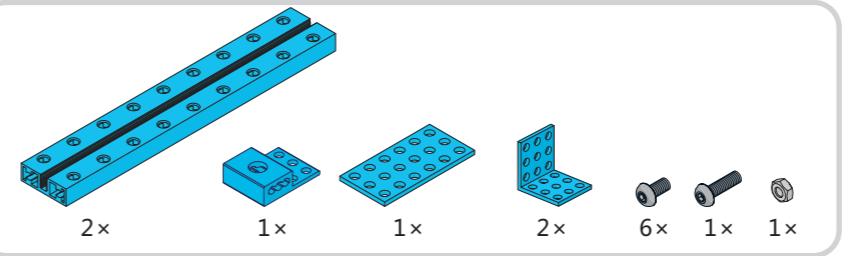
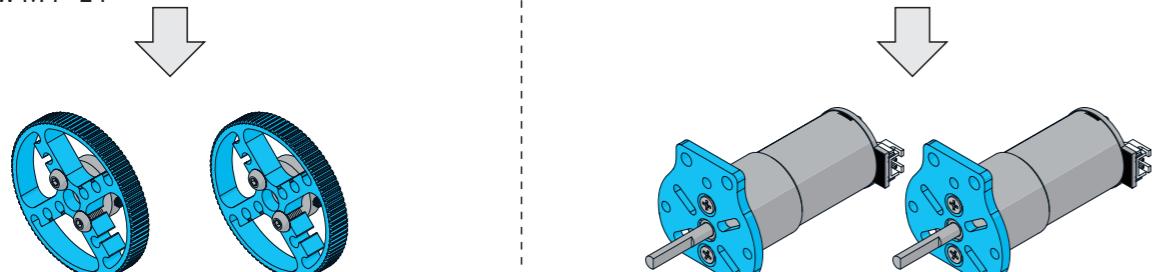
<http://app.makeblock.cc/>



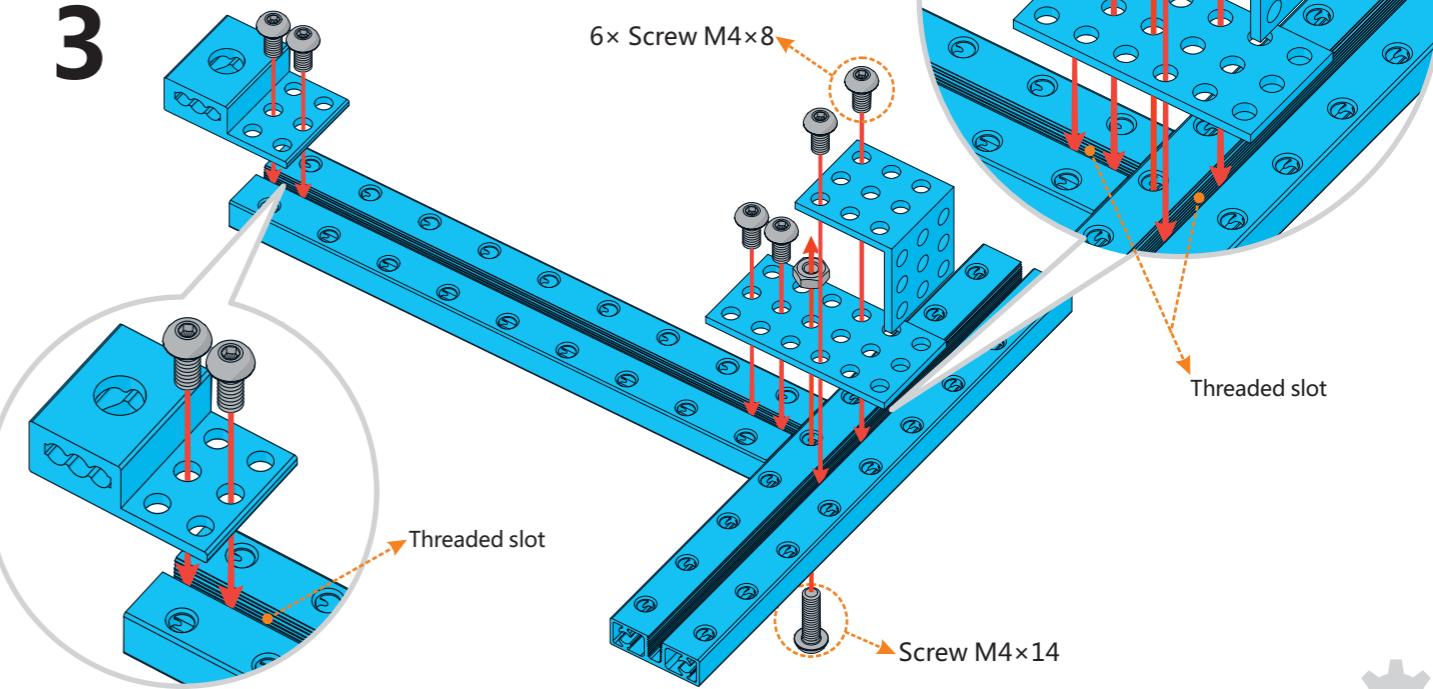
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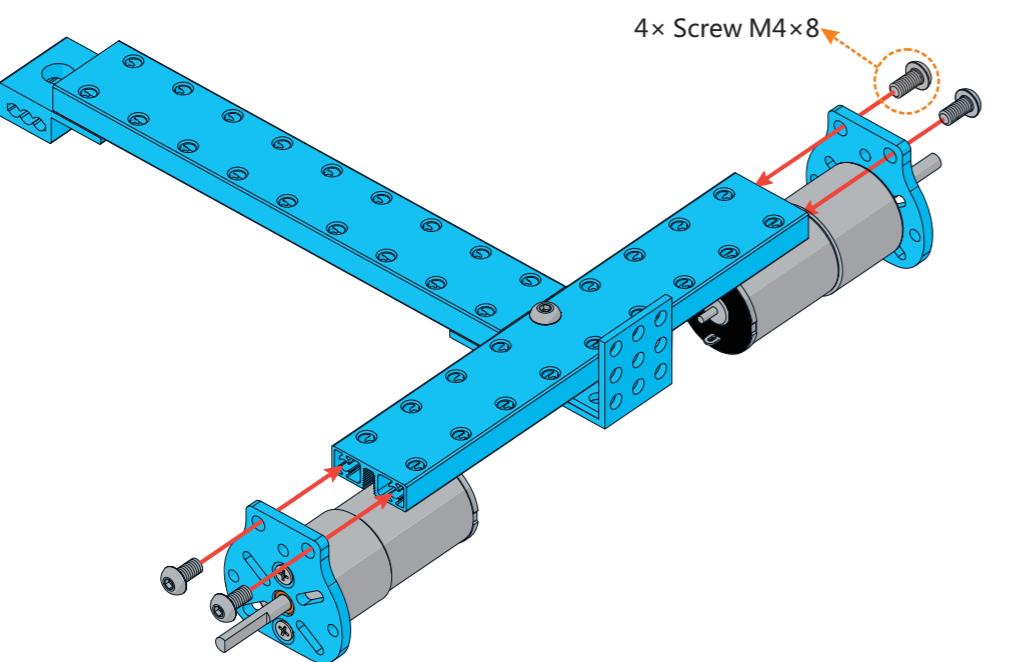


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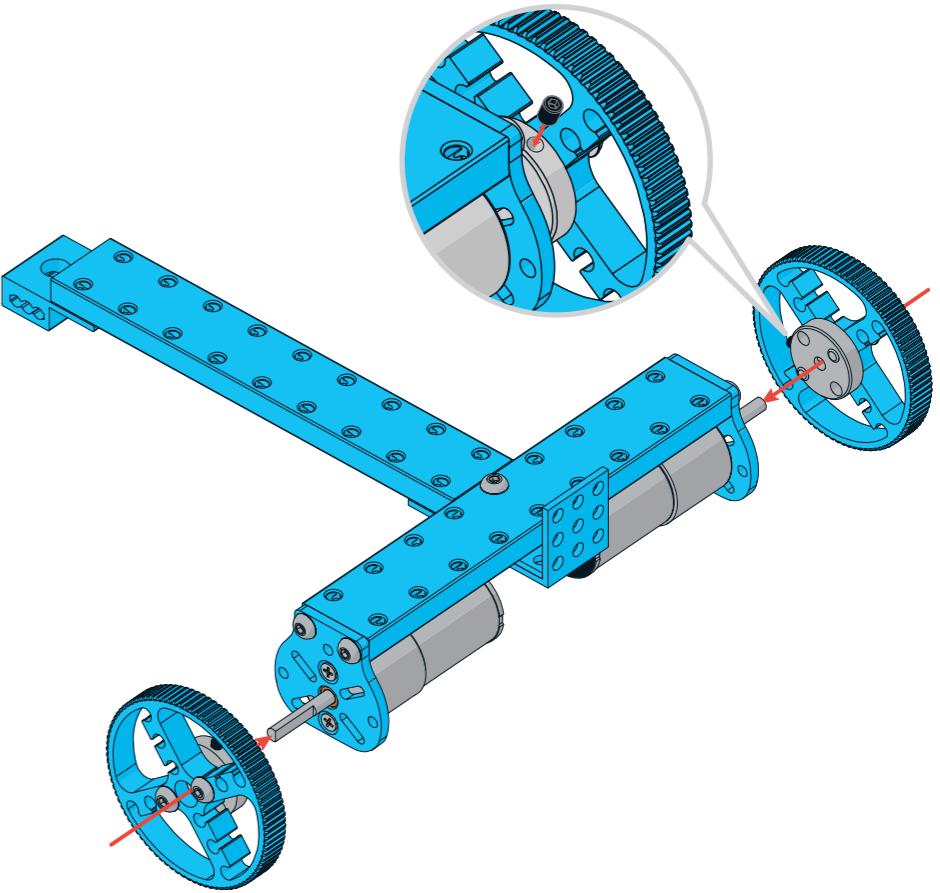
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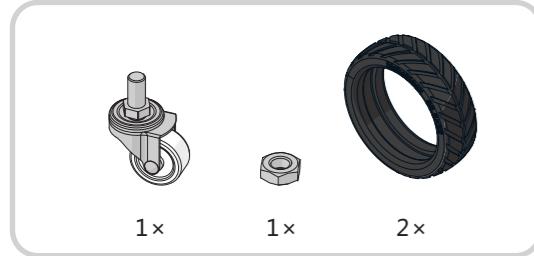


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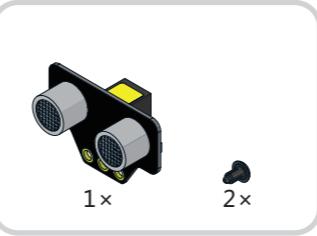
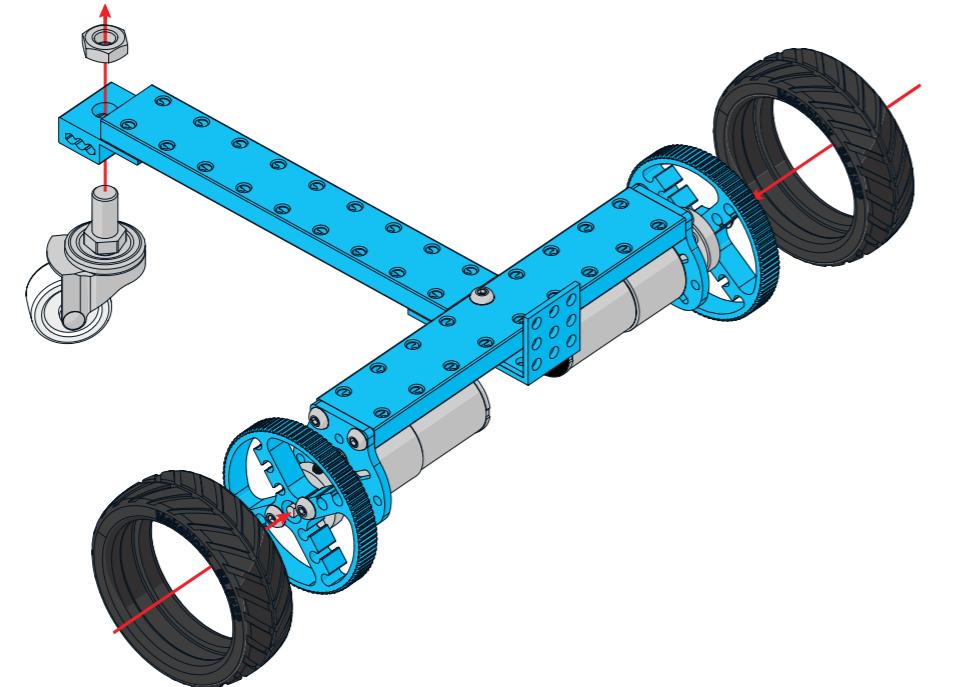


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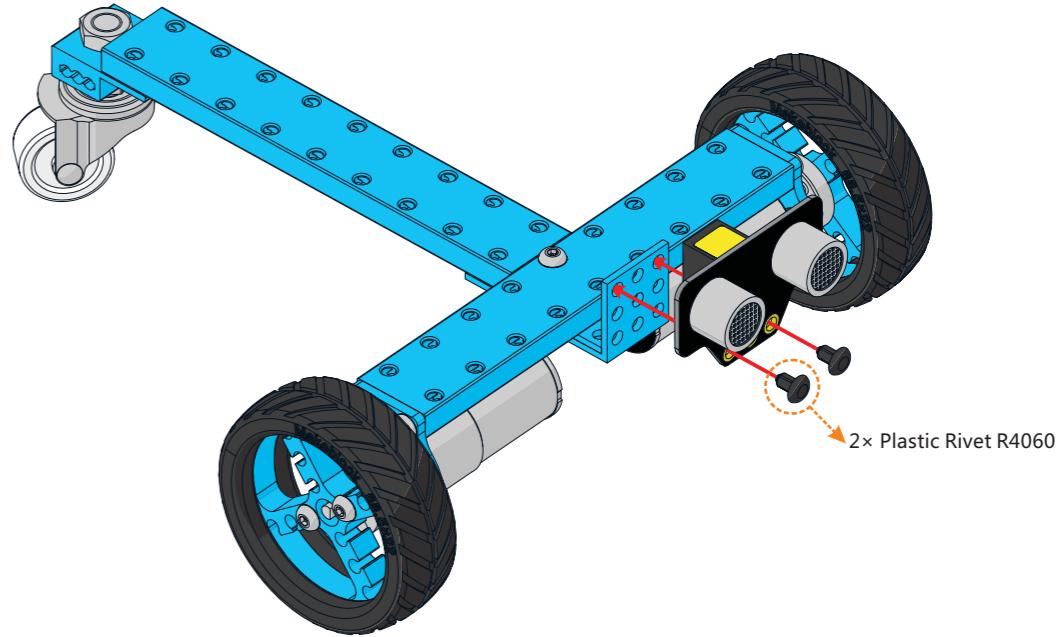


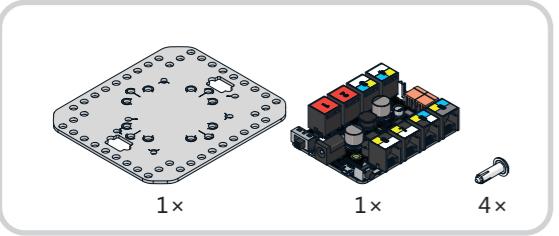


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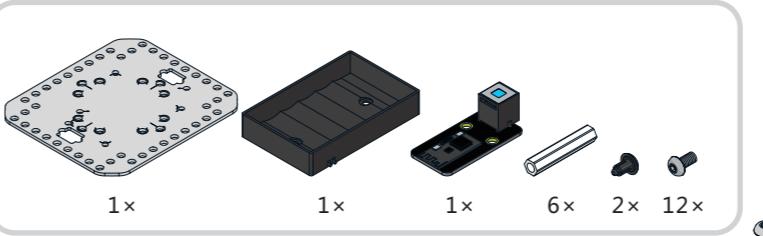
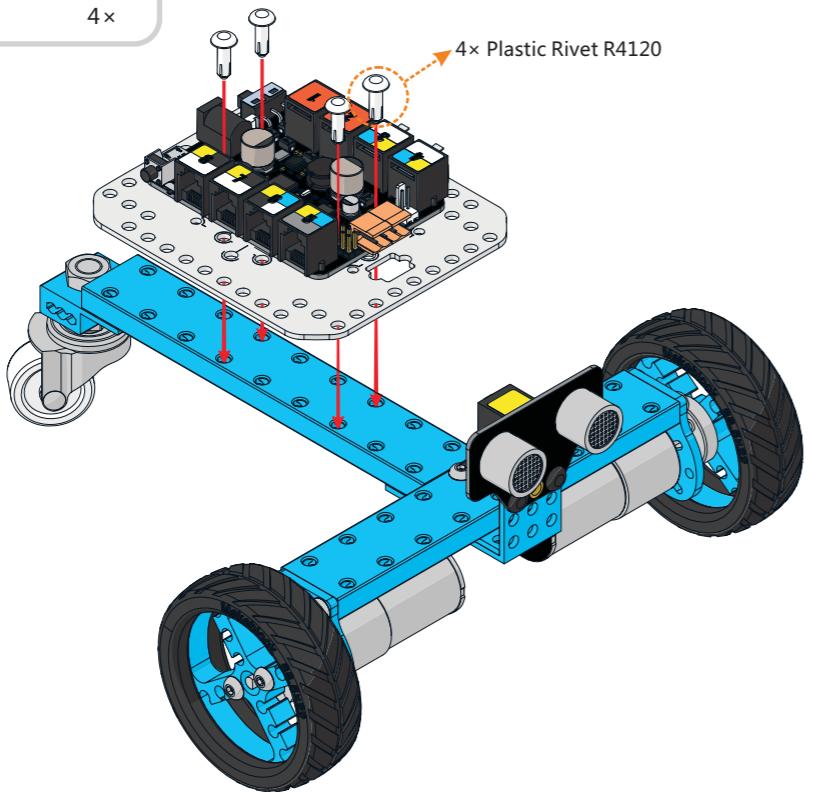


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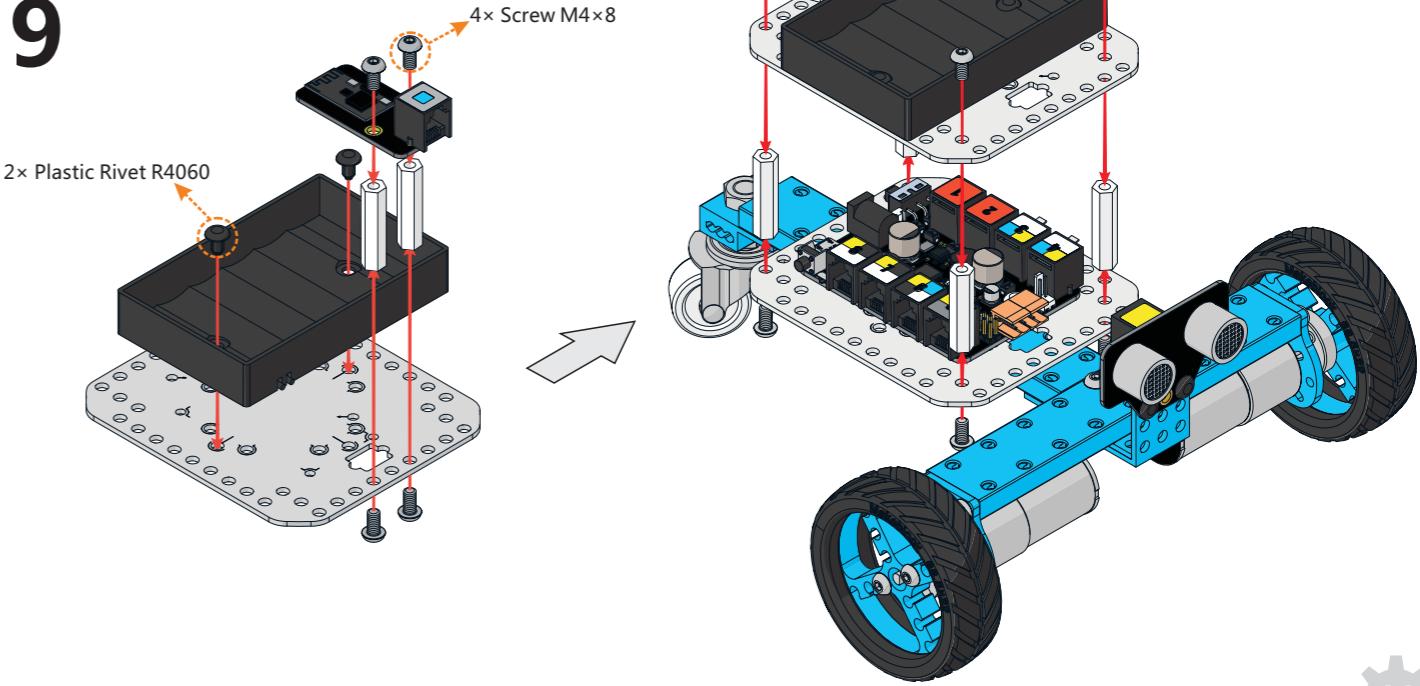




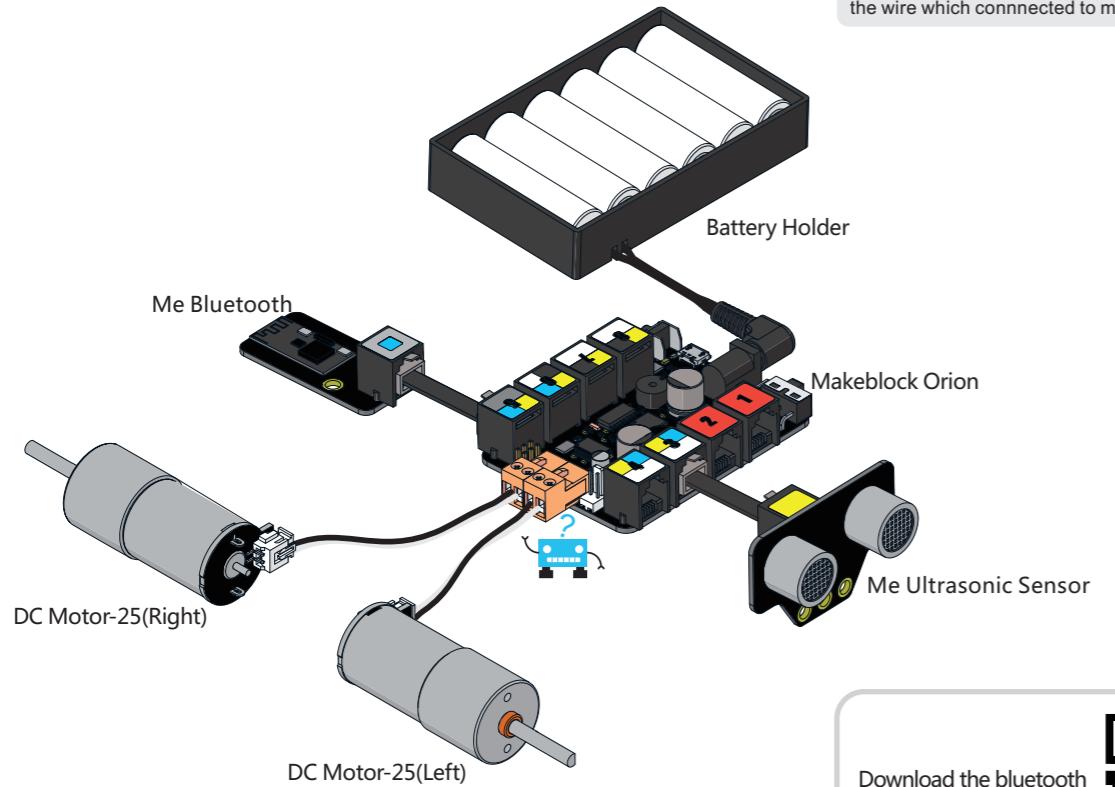
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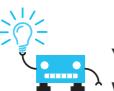
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# Wiring and Programming



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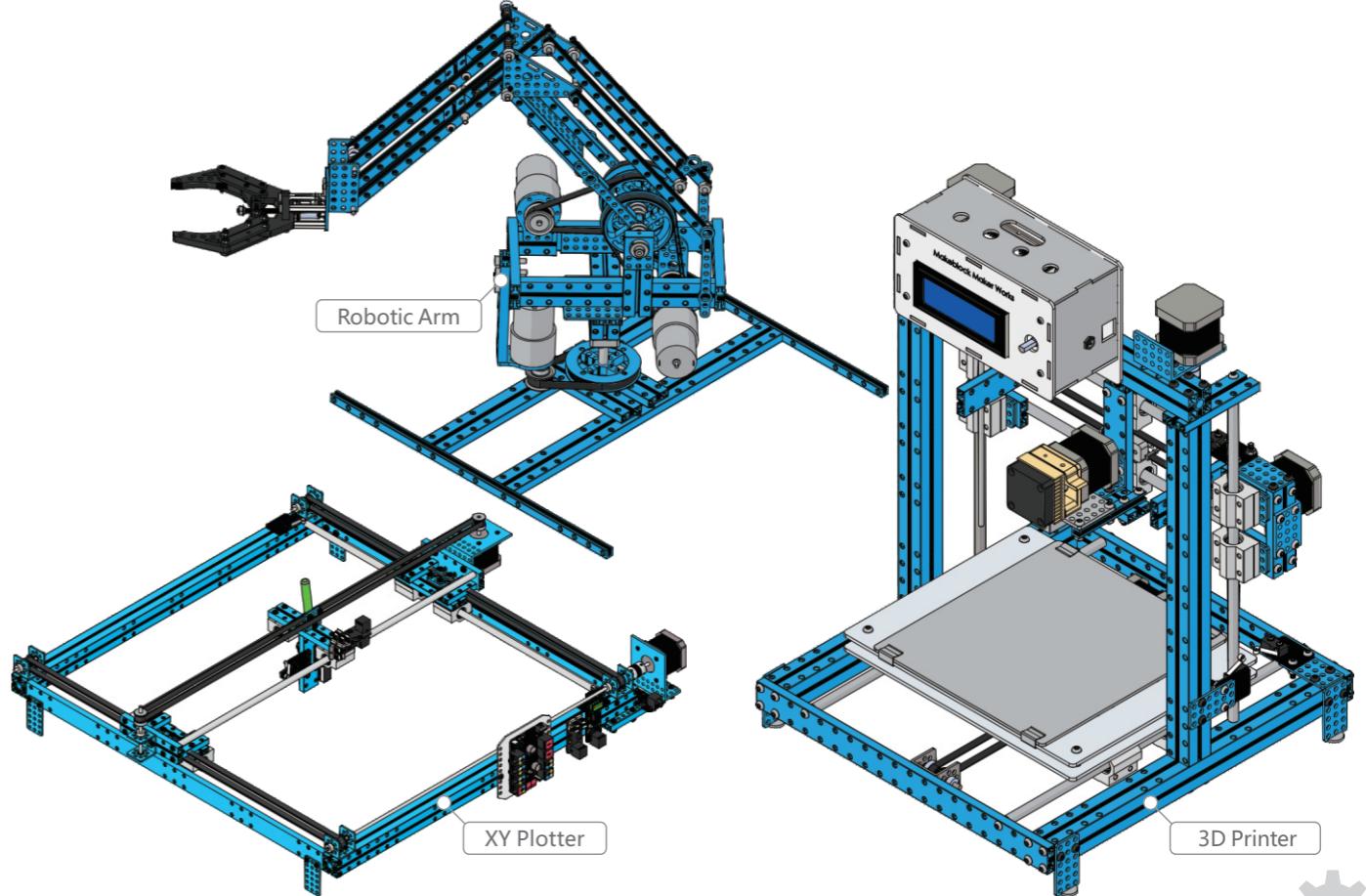
You may need to switch the order of two wires to correct the rotation direction.

Download the bluetooth control App by scanning the QR code



<http://app.makeblock.cc/>

## You can build more on Makeblock



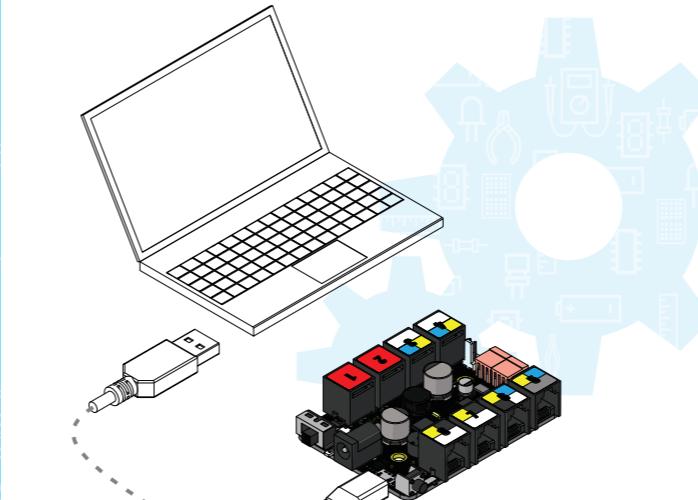
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# Programming Guide

If you want to creat advanced and customized programs, please refer to this part.

## Makeblock Orion Driver Installation

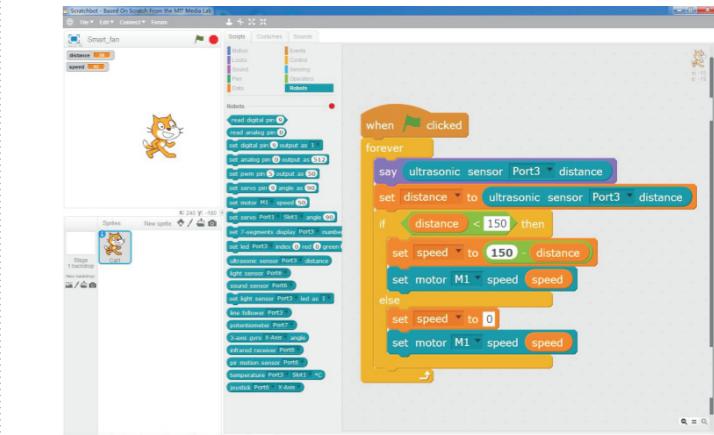
The USB interface of Makeblock Orion uses the chip CH340, you may need to install the chip CH340 drivers manually.



Visit the following URL for more details:  
[http://learn.makeblock.cc/driver\\_installation/](http://learn.makeblock.cc/driver_installation/)

## Working with Scratch --Hack the Physical World

Makeblock platform supports graphical programming language Scratch, you can simply drag and joint the blocks to run your creations without difficult coding.



Visit the following URL for more details:  
<http://learn.makeblock.cc/learning-scratch>

Scratch is a programming language and online community where you can create your own interactive stories, games, and animations -- and share your creations with others around the world. In the process of designing and programming Scratch projects, young people learn to think creatively, reason systematically, and work collaboratively. Scratch is a project of the Lifelong Kindergarten group at the MIT Media Lab. It is available for free at <http://scratch.mit.edu>

## Working with Arduino IDE

—Learn Programming the Fun Way

```
TestSlaveBluetoothBySoftSerial | Arduino 1.0.5-r2
File Edit Sketch Tools Help
TestSlaveBluetoothBySoftSerial
http://www.makeblock.cc/
#include <Makeblock.h>
#include <Arduino.h>
#include <SoftwareSerial.h>
#include <Wire.h>

MBluetooth bluetooth(PORT_4);

void setup()
{
    Serial.begin(9600);
    bluetooth.begin(9600);
    Serial.println("Bluetooth Start!");
}

void loop()
{
    char inData;
    char outData;
    if(bluetooth.available())
    {
        inData = bluetooth.read();
        Serial.print(inData);
    }
    if(Serial.available())
    {
        outData = Serial.read();
        bluetooth.write(outData);
    }
}
```

18 Arduino Leonardo on COM7

Learn and play at the same time!  
Enjoy it your own way.

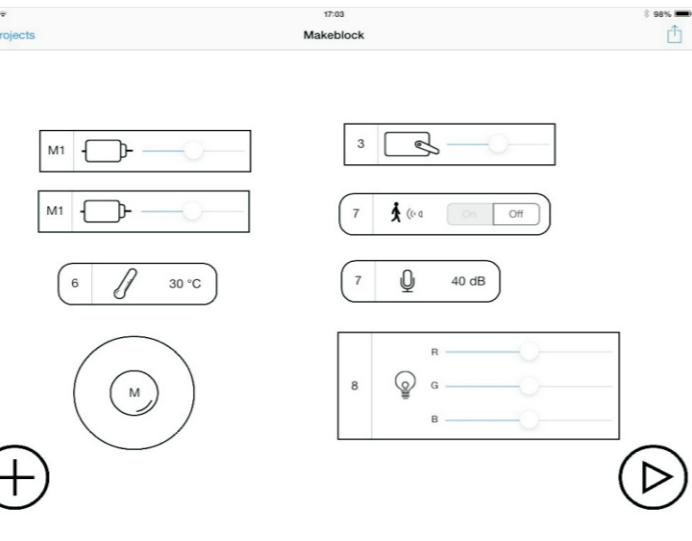
Visit the following URL for more details:  
<http://learn.makeblock.cc/learning-Arduino>

Arduino is an open-source electronics prototyping platform based on flexible, easy-to-use hardware and software. The Arduino software consists of a development environment (IDE) and the core libraries. The IDE is written in Java and based on the Processing development environment. The core libraries are written in C and C++ and compiled using avr-gcc and AVR Libc.

## Working with the Makeblock App

—Construct It Once, Control It Everywhere

Install the Makeblock app to control your creations with your Android or iOS device.



Visit the following URL for more details:  
<http://learn.makeblock.cc/learning-APP>

# Construct Your Dreams