

Please use your own kit.

Do not put any parts in your mouth.

Please clean up after use.

Please raise your hand if you have any questions.



INTRODUCTION





Scenarios

As we step into the 21st century, intelligent robots are gradually becoming a part of our lives. From various types of drones, deep-sea submersibles, and automated factory production lines to bomb disposal robots for dangerous tasks... In this series of courses, we will use the Superbot Master kit to explore the world of intelligent robotics together.



Dear kids,

How can we make a robot move?

What types of signals can a robot use to give feedback?

Let's embark on a journey to get to know the SuperBot Master and start our exploration together!



Get to know Superbot Master

AI Courses

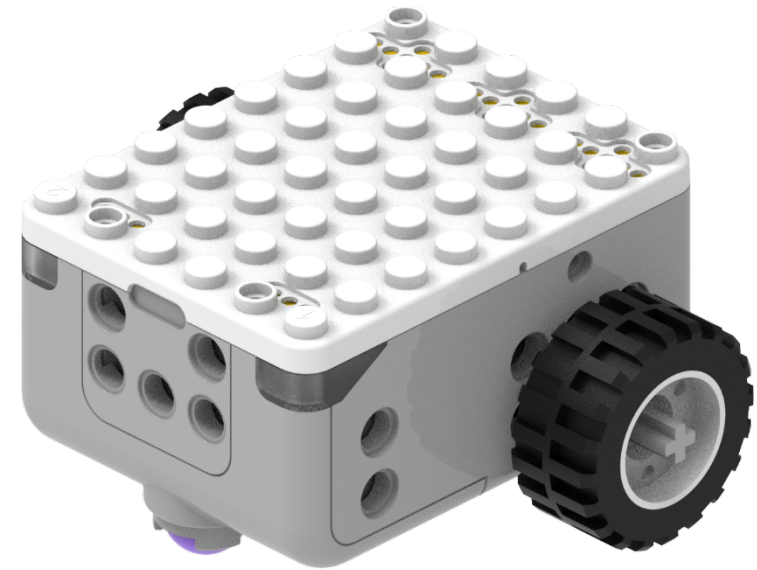




Scenarios

Question :

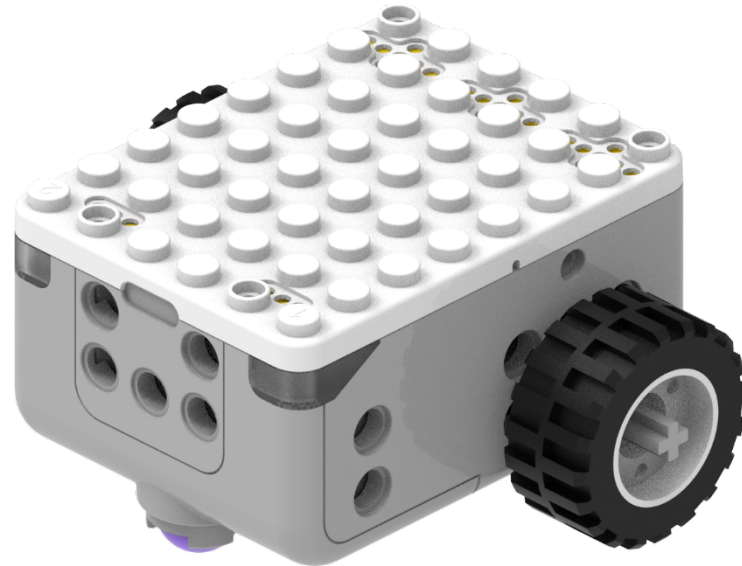
Dear kids, Do you know
how we can make a robot move?
what types of signals a robot can
use to give feedback?





Scenarios

Today, you are all little engineers. Let's build the Superbot car together!



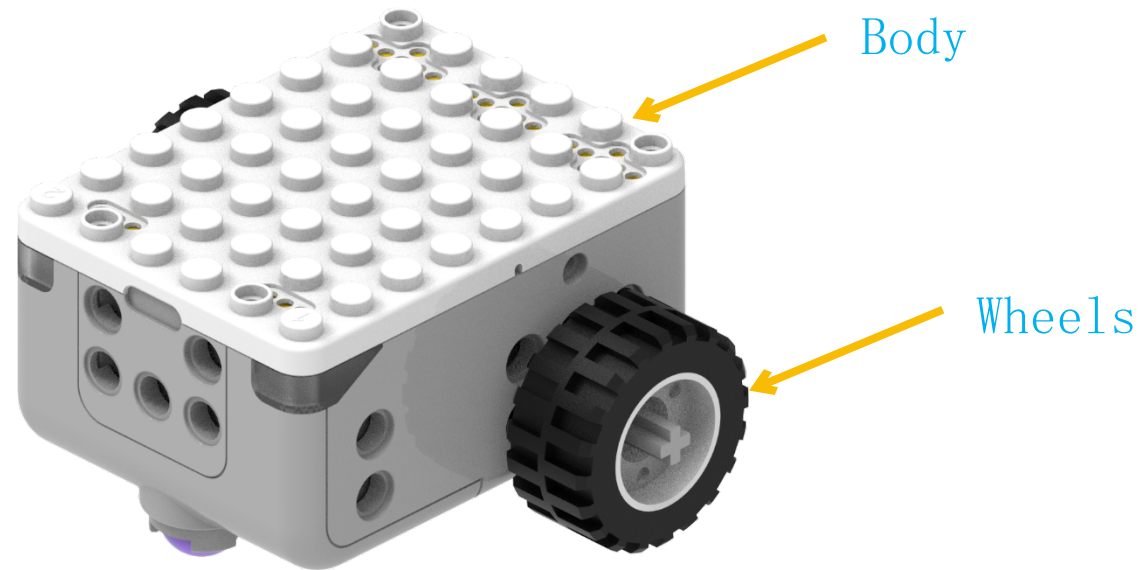
ASSEMBLY





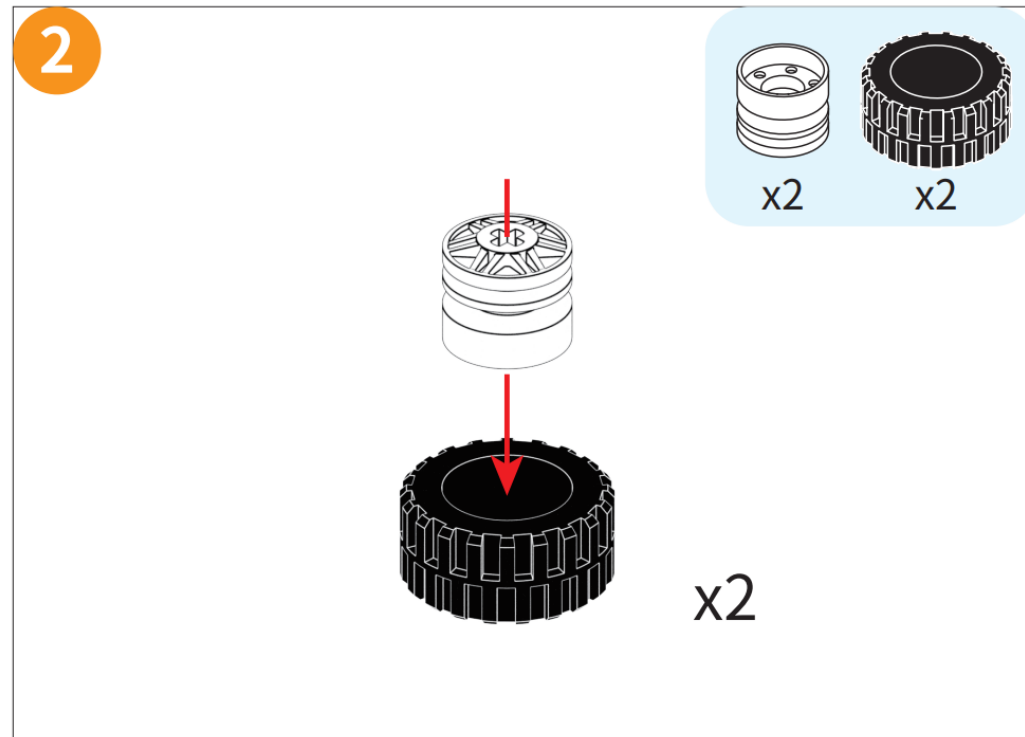
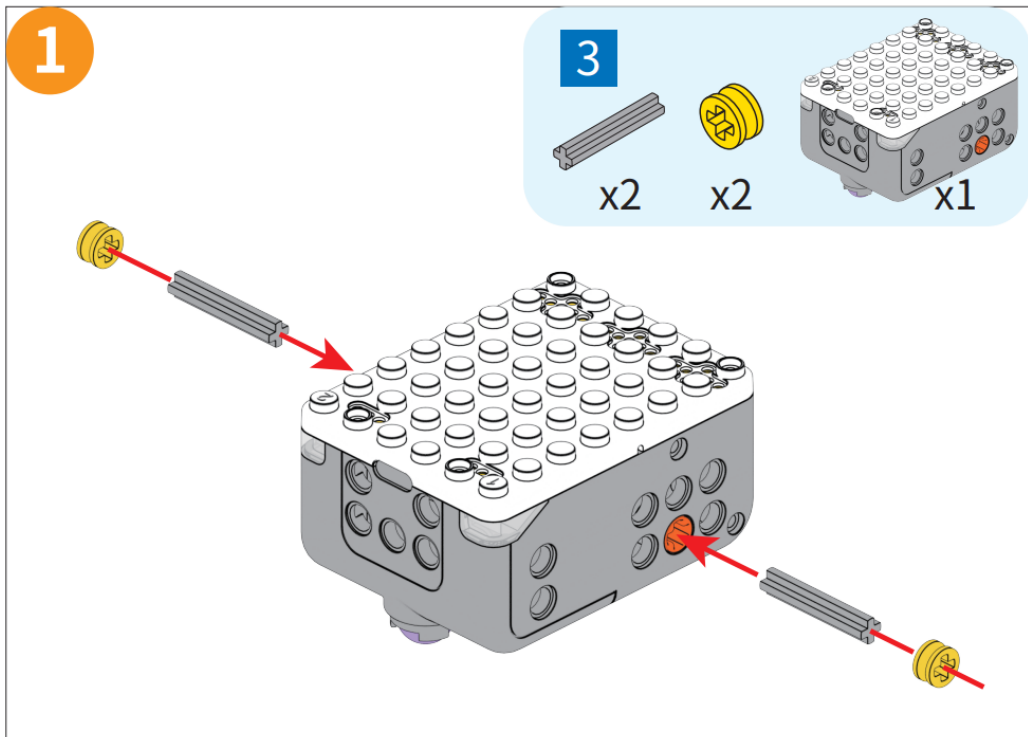
The Final Model

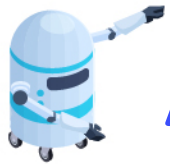
Assembling the body and wheels



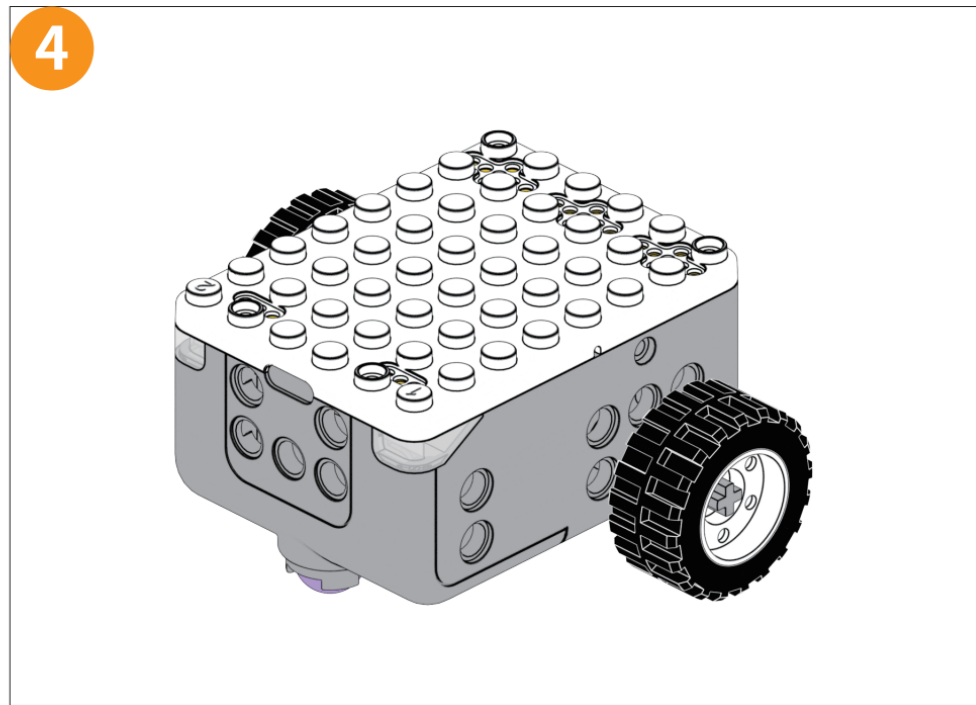
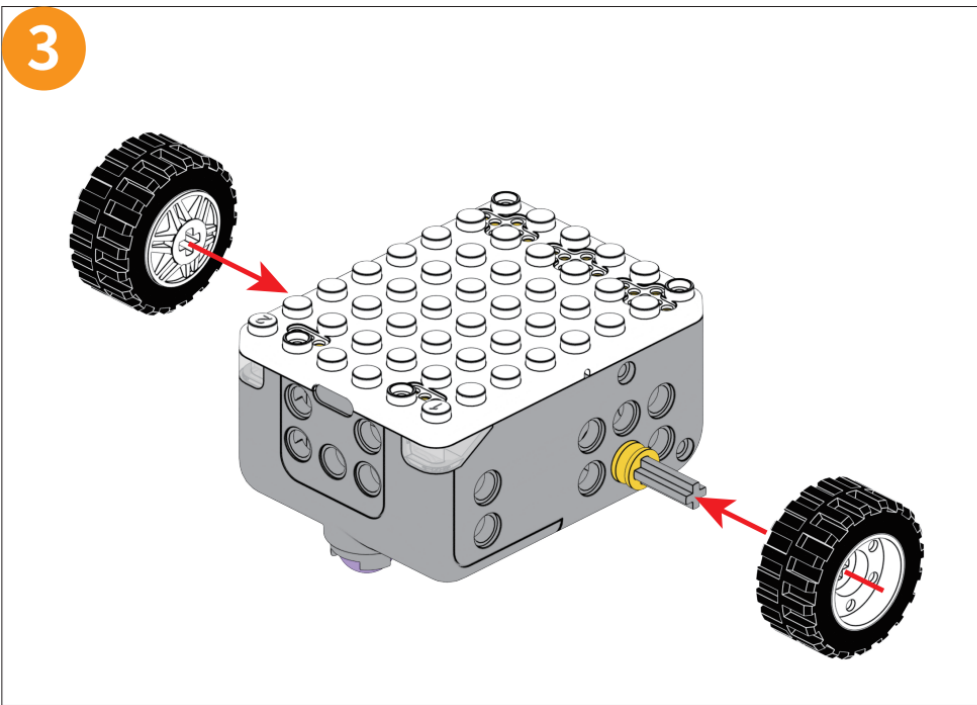


Assembly





Assembly



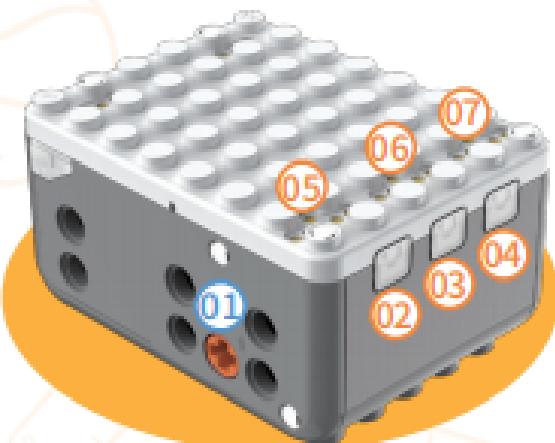
PROGRAMMING





Introductions

Premium Version



FRONT

01. Built-in Encoder Motor Power Output#1

02. Button #1

03. Power Button

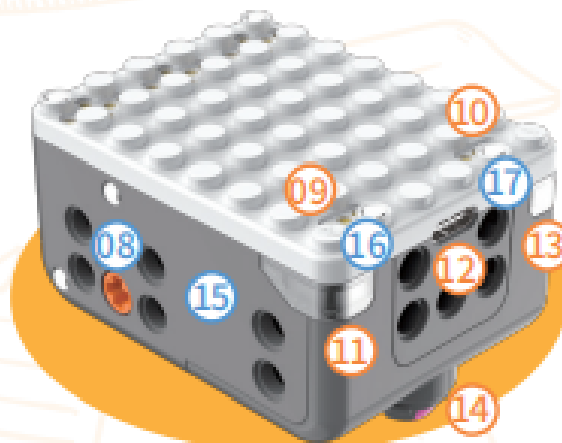
04. Button #2

05. Extended Motor Port

06. Extended Motor Port

07. Extended Motor Port

Premium Version



BACK

08. Built-in Encoder Motor Power Output#2

09. Sensor Interface#2

10. Sensor Interface#1

11. LED Light#2

12. Charging Interface

13. LED Light#1

14. Universal Wheel

15. 6-axis Gyroscope

16. Microphone

17. Built-in Speaker



Introductions

Motor#1

Button#1 controls the direction of Motor#1 rotation;

Short Press

Long Press

Counterclockwise

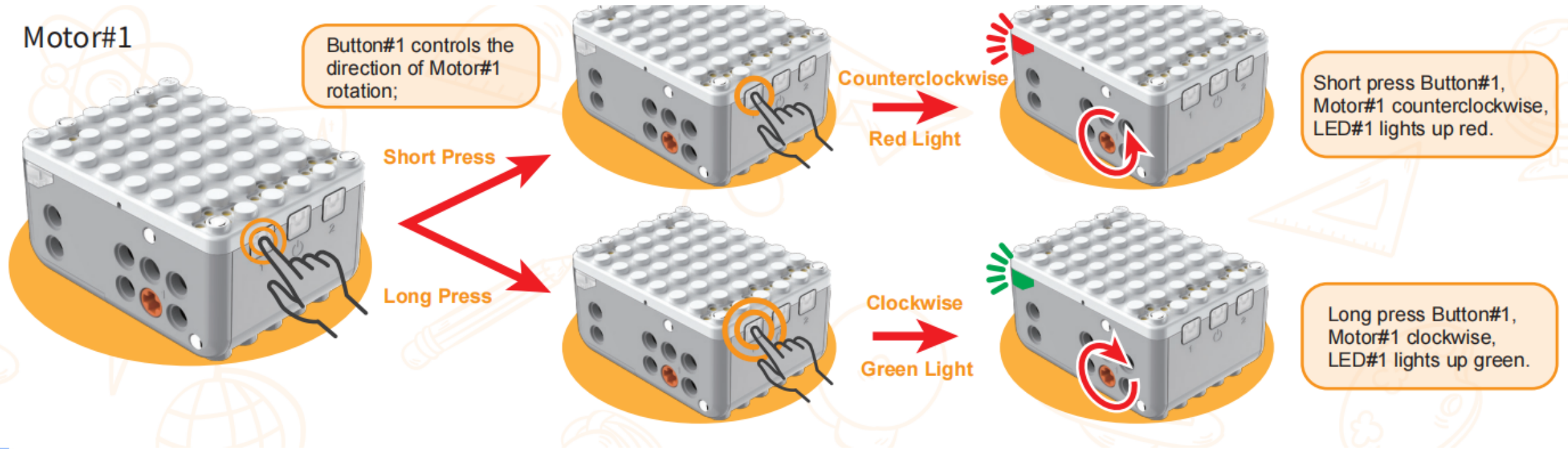
Red Light

Clockwise

Green Light

Short press Button#1, Motor#1 counterclockwise, LED#1 lights up red.

Long press Button#1, Motor#1 clockwise, LED#1 lights up green.





Introductions

Motor#2

Button#2 controls the direction of Motor#2 rotation.

Short Press

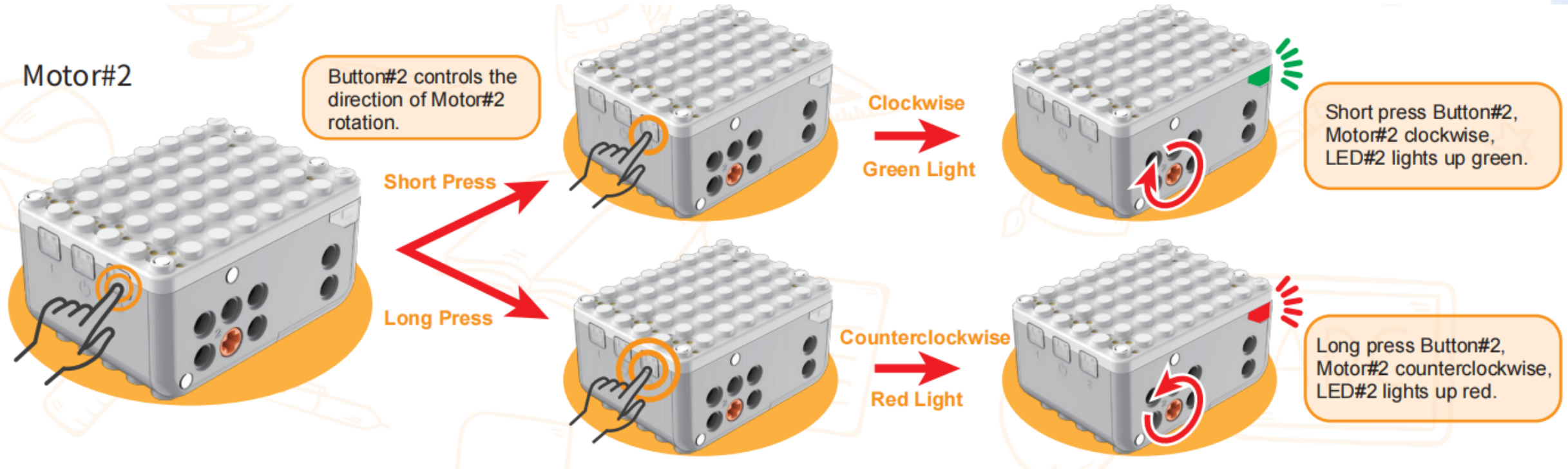
Long Press

Clockwise
Green Light

Counterclockwise
Red Light

Short press Button#2, Motor#2 clockwise, LED#2 lights up green.

Long press Button#2, Motor#2 counterclockwise, LED#2 lights up red.





Introductions

The host control unit must first be connected to the **Makerzoid Lab** graphical programming platform via Bluetooth before programming can be done, as all programming instructions are on the **Makerzoid Lab**.





Introductions

- ① Open the online coding webpage and download page. (**Google Chrome browser is preferred.**)

<https://software.makezoid.com/makerzoidlab/index.html>





Introductions

② Click “Let’s start programming”

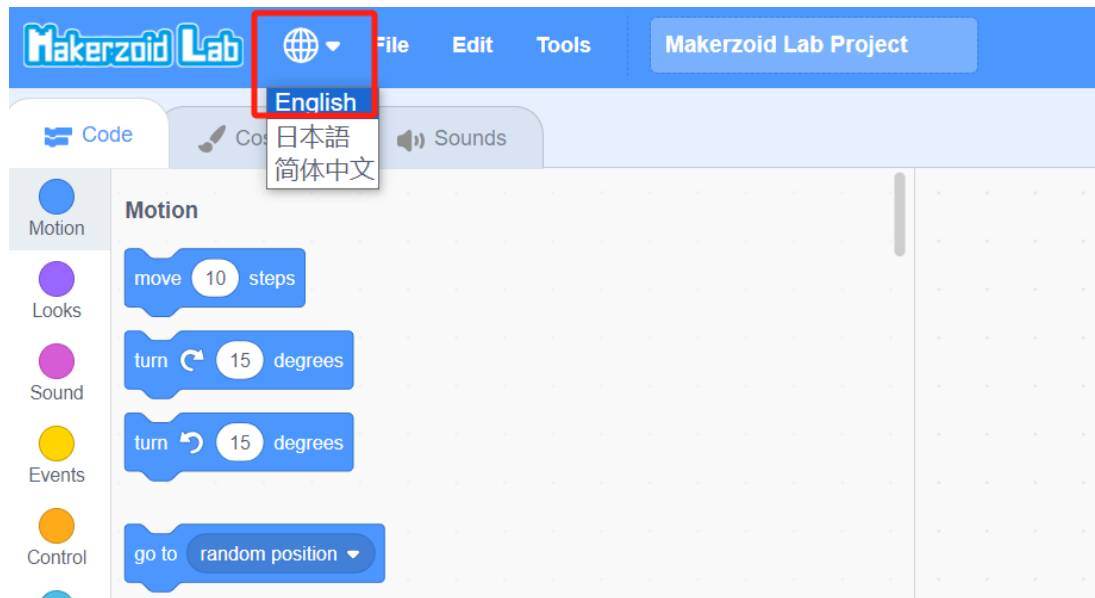
IMPORTANT:
Make sure the
Bluetooth on the
PC/laptop is
enabled.



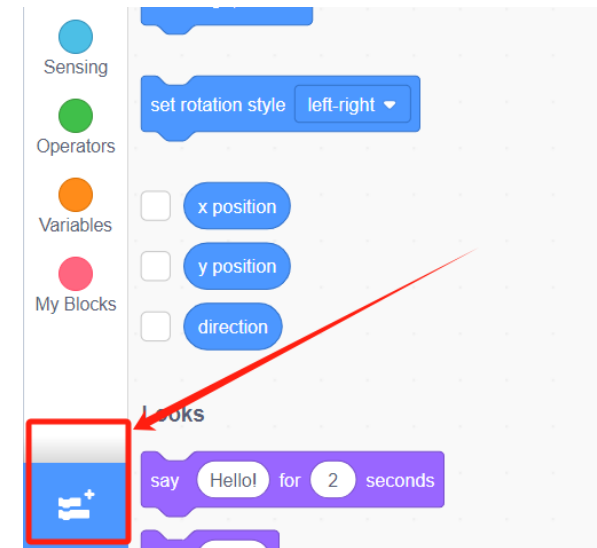


Introductions

③ Add “Superbot Master Premium” to extension



Change language to English



Choose Add Extension



Introductions

Superbot Master Premium (Bluetooth)
Make anything you want.

Requires Collaboration with **Makerzoid**

Superbot Master Premium (USB Mod)
A robot that can be controlled by connecting a USB cable.

Requires Collaboration with **Makerzoid**

Choose “Superbot Master Premium (Bluetooth)”

Superbot Master Premium (Bluetooth Mode)

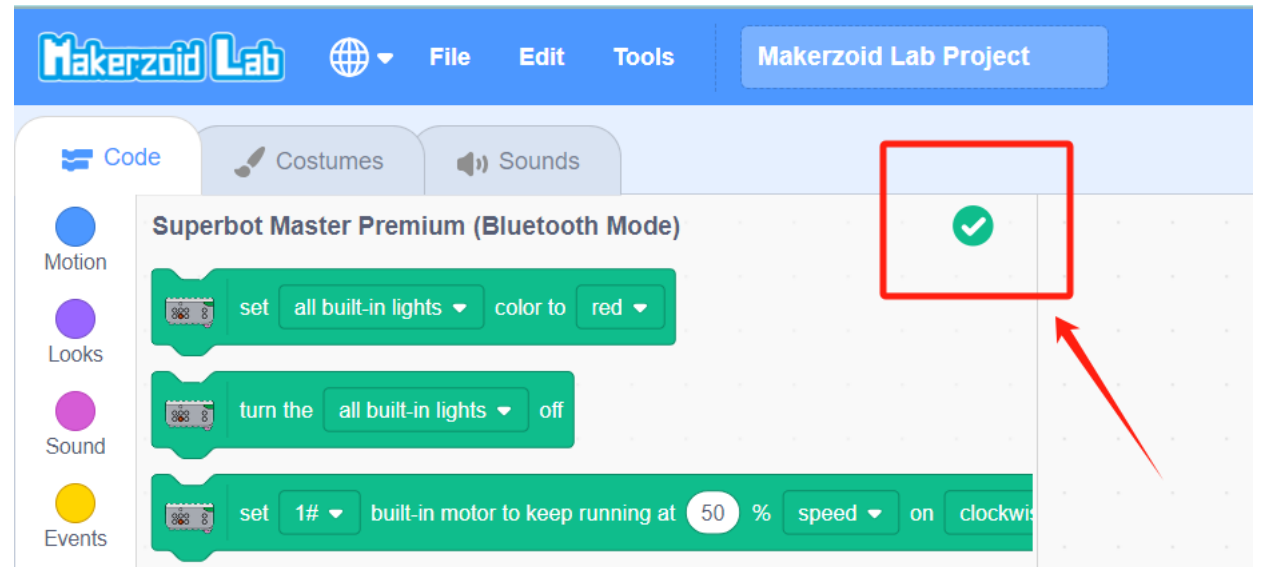
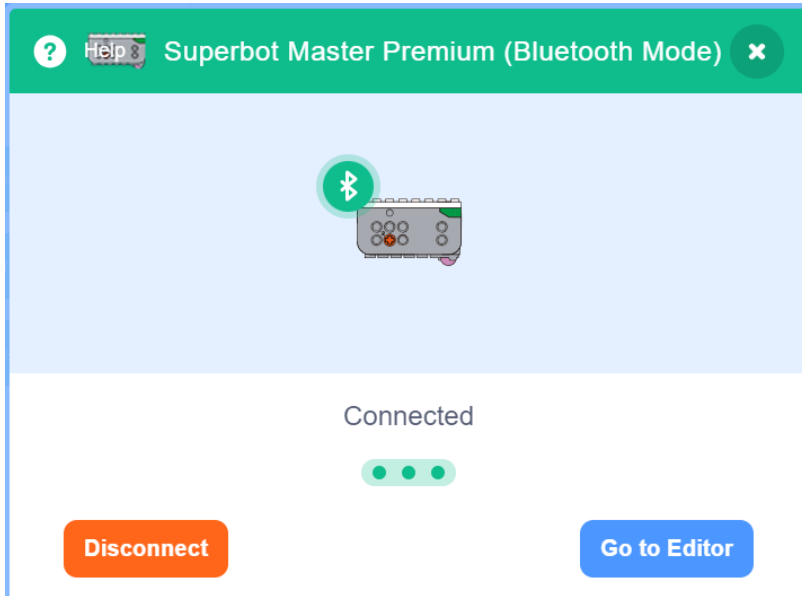
Have your device nearby, then begin searching.

Start Searching

Turn on the control unit, click “Start Searching”



Introductions



④ Choose the MAC address of the control unit and Connect.

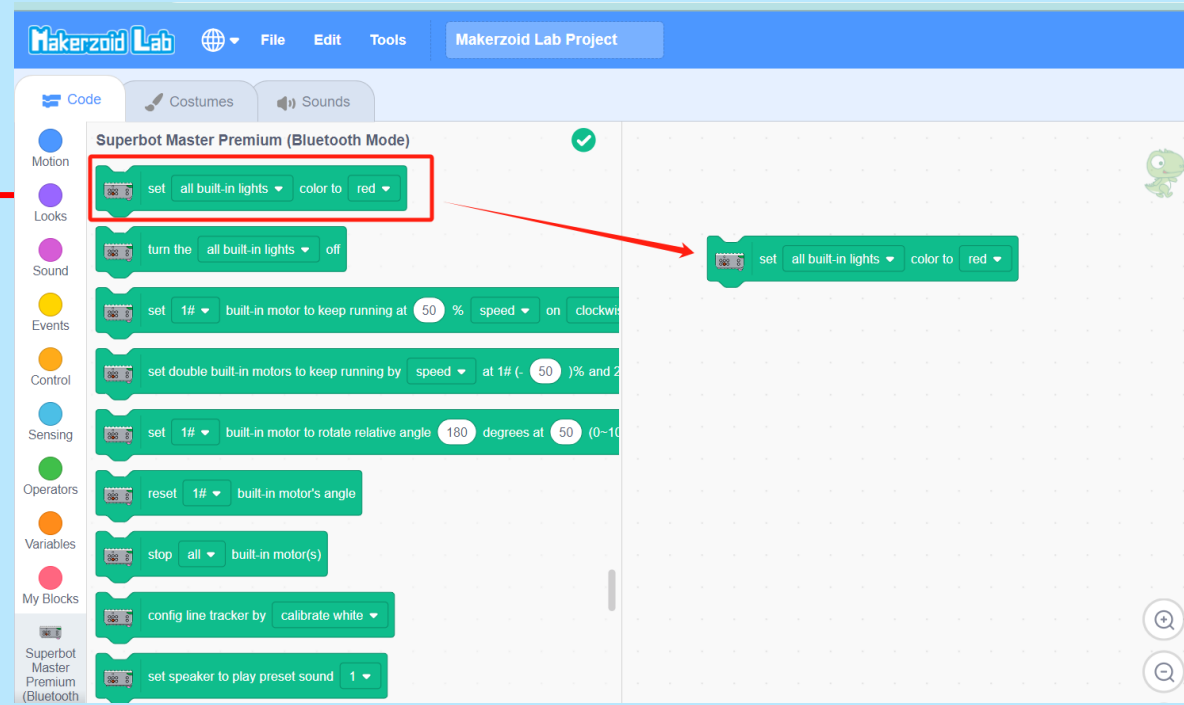
After the connection, the green light on the control unit stays on. Go to Editor, there will be a green sign on the corner.



Introductions

1、 Add and Move blocks

Select a block from the module area,
then drag it to the appropriate
location in the program editing area.

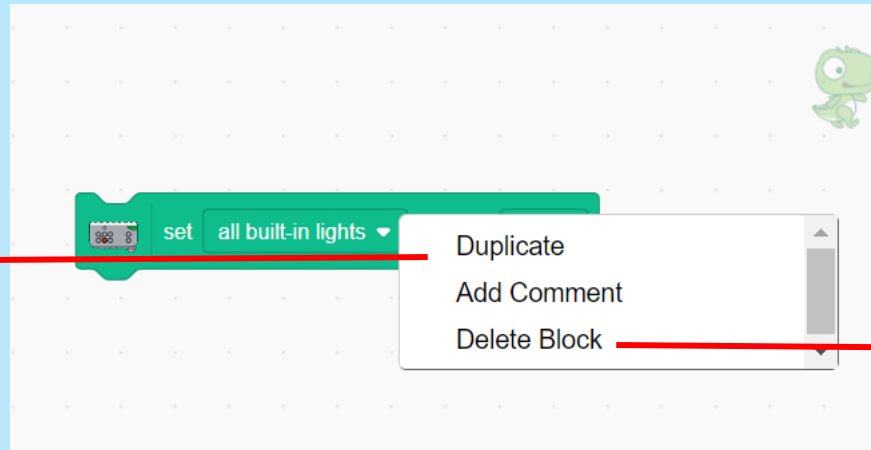




Introductions

2、 Delete and Duplicate a block

Right-click on the block to display the "Duplicate" option, and select it to copy the block.



Right-click on the block to display the "Delete" option and select it to remove the block.

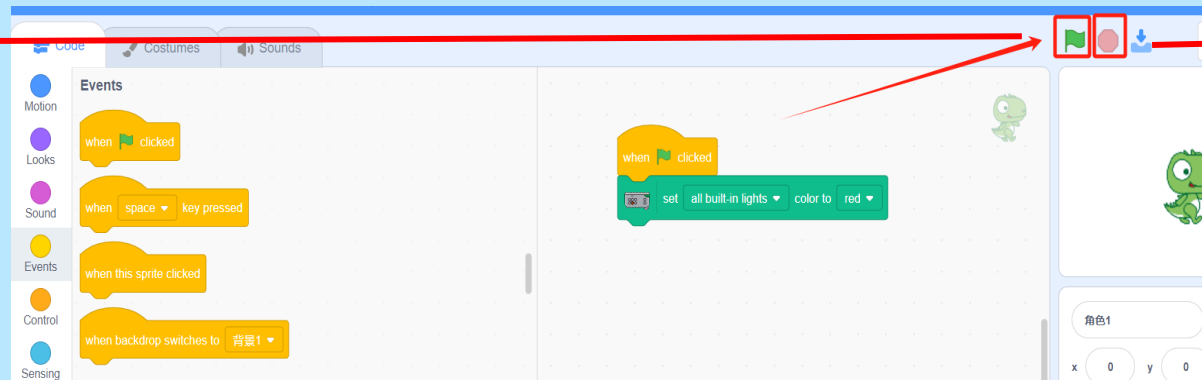
Alternatively, you can drag the block to the module area to delete it.



Introductions

3、 Start and End a program

Click the "Green Flag" to start the program.

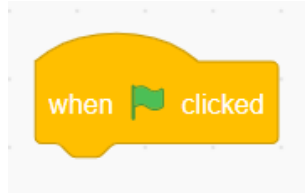


Click the "Stop" button to end the program.

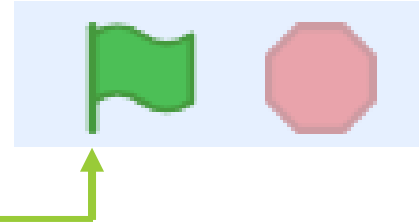


Introductions

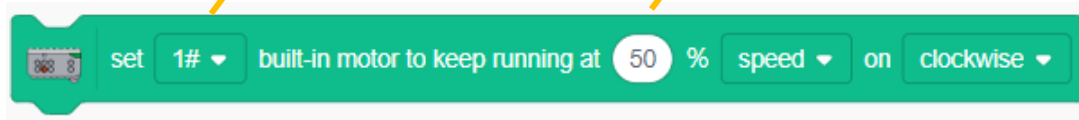
Module Explanation



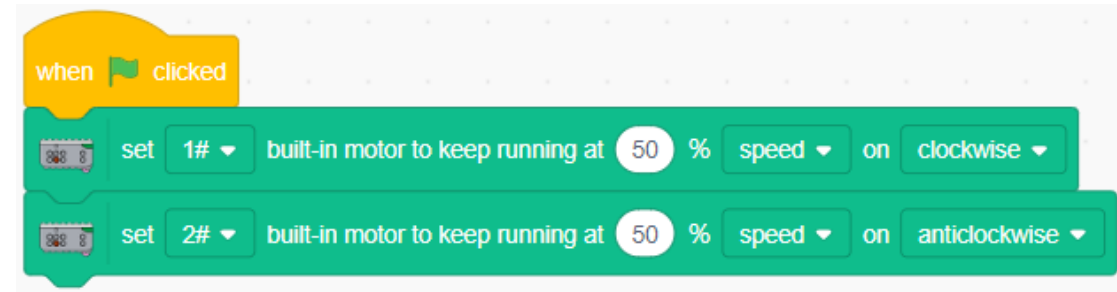
The program runs when the green flag is clicked.



The larger the value, the faster the motor runs.



This block can make both motors of the Superbot robot run simultaneously.



Put these two blocks together, and click the green flag, the robot still start moving.

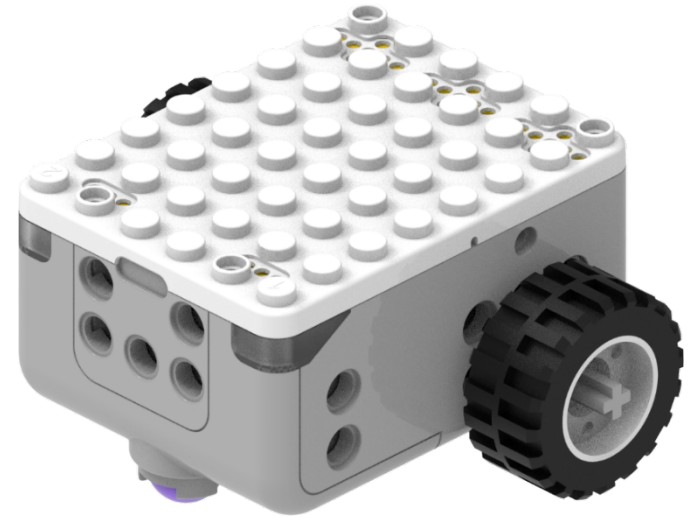


Play and Try

Let's give it a try:

Write a program and see if the car moves.

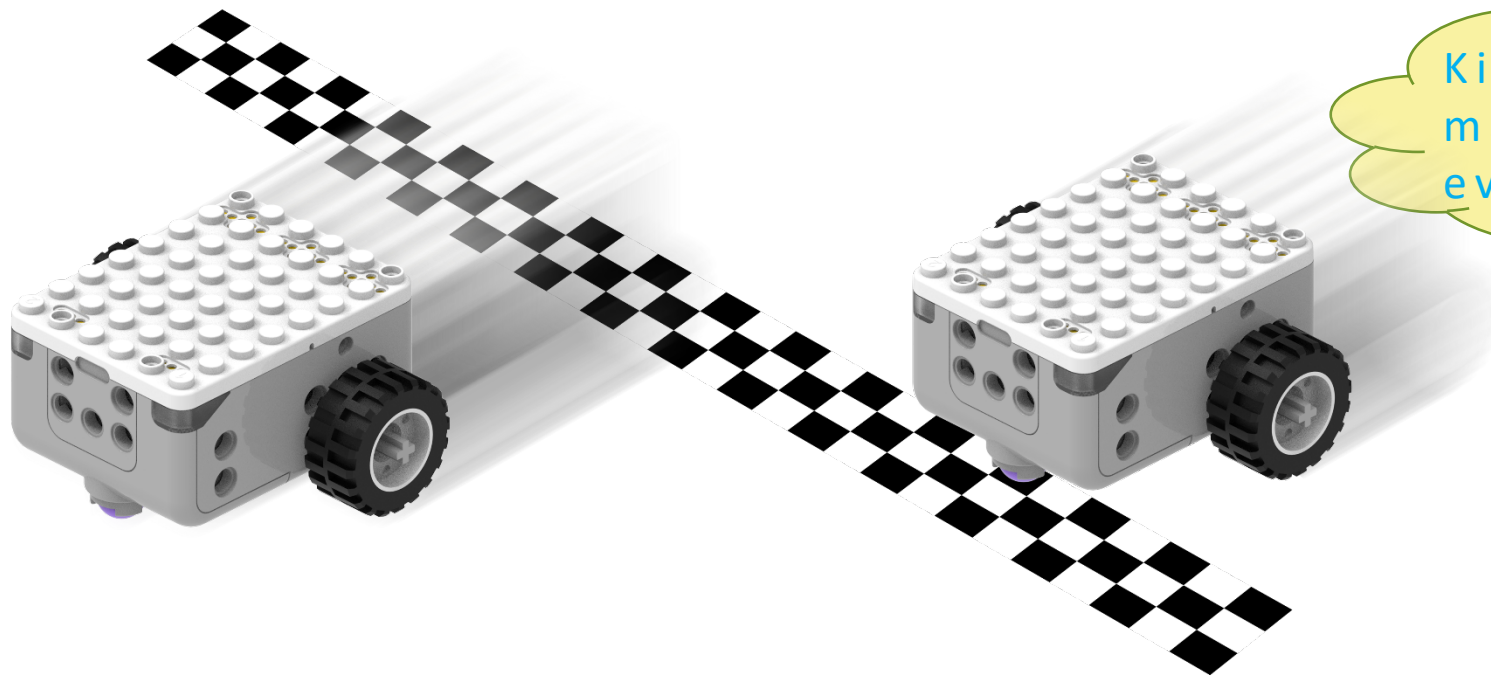
```
when clicked
  set 1# built-in motor to keep running at 50 % speed on clockwise
  set 2# built-in motor to keep running at 50 % speed on anticlockwise
```





Play and Try

Get ready, competitors—racing is about to begin!



Kids, is there a way to make the Superbot car even more powerful?

CREATION

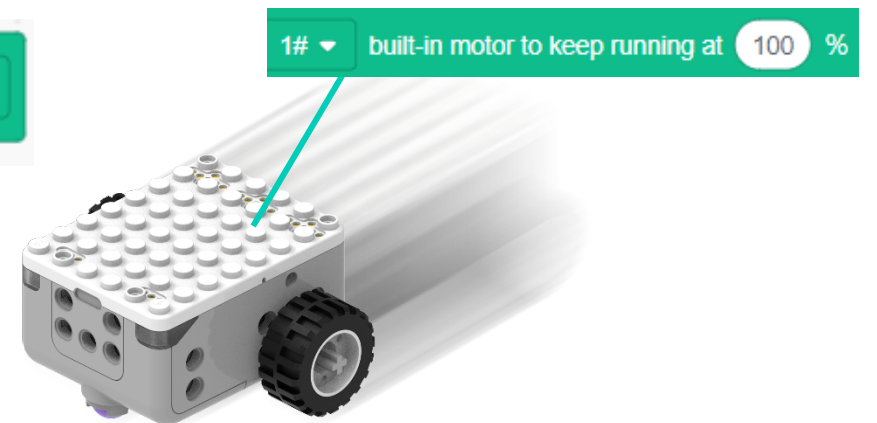
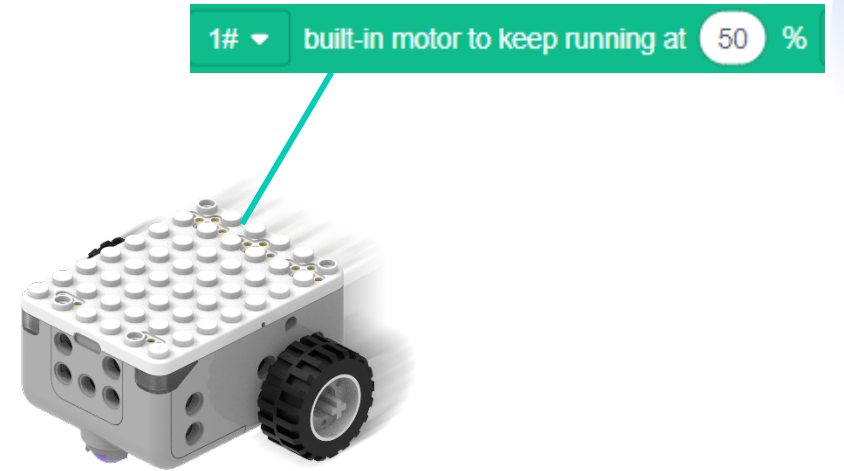
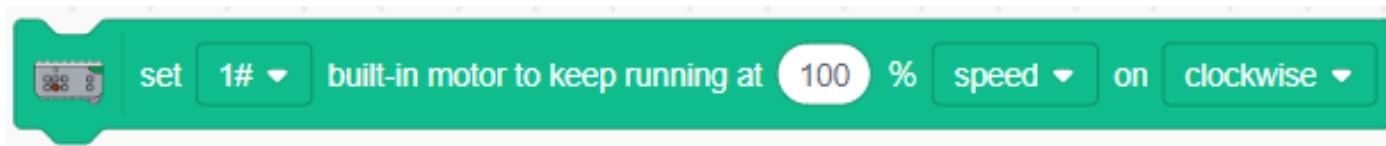
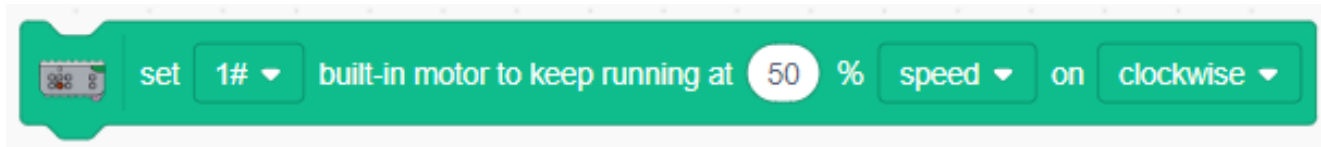




Create

1. Change the speed

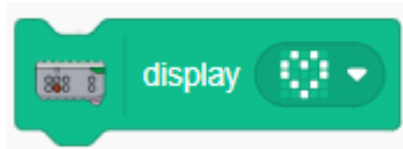
Try increasing the speed value and see if the performance of the Superbot car improves.



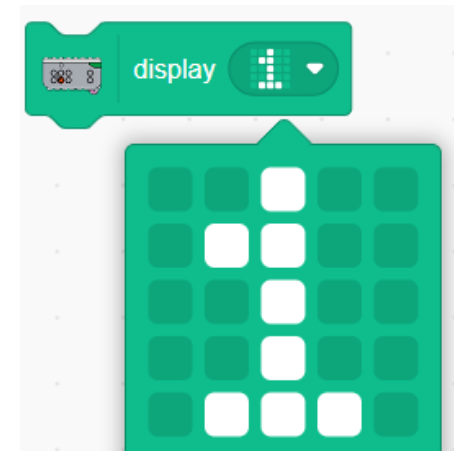
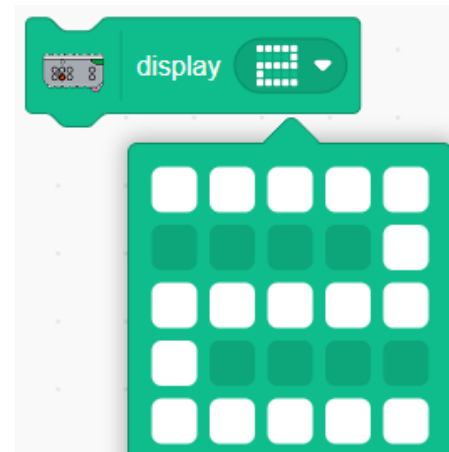
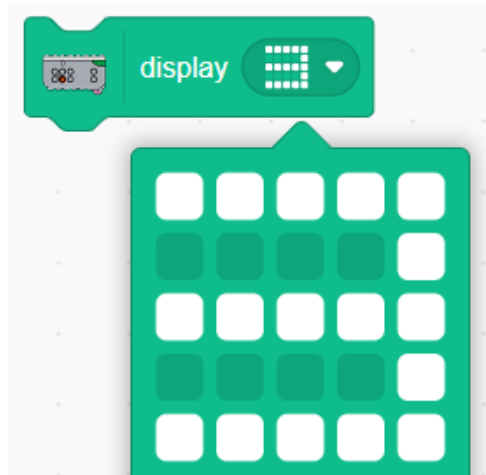


Introductions

Module Explanation



You can make the matrix screen display a specified pattern.



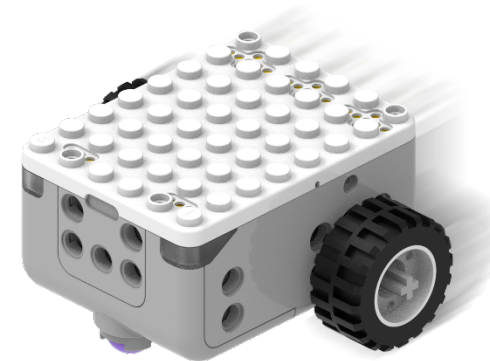
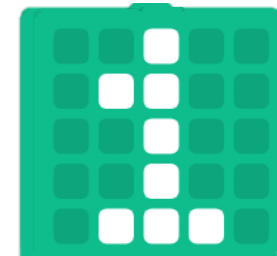


Create

2. Countdown feature

Make the car display a countdown of 3-2-1 on the matrix screen before it starts moving.

```
when clicked
  display 3
  wait 1 seconds
  display 2
  wait 1 seconds
  display 1
  set 1# built-in motor to keep running at 50 % speed on clockwise
```



SUMMARY



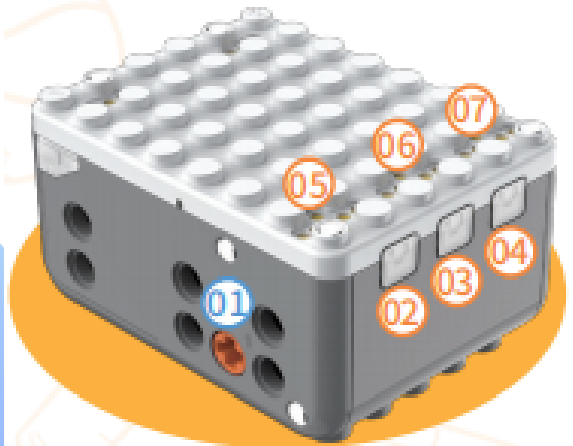


Summary

In this lesson, we learned about:

1. The host control unit

Premium Version



FRONT

01. Built-in Encoder Motor Power Output#1

02. Button #1

03. Power Button

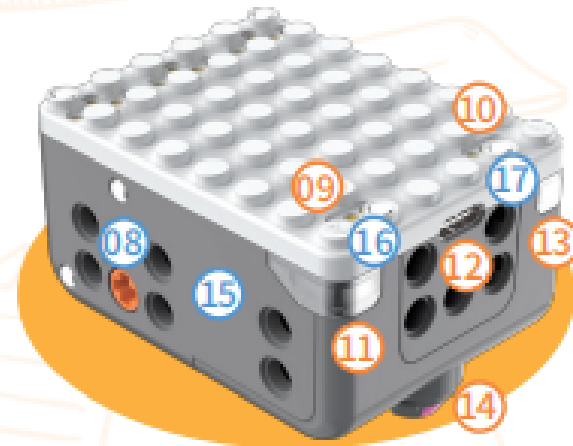
04. Button #2

05. Extended Motor Port

06. Extended Motor Port

07. Extended Motor Port

Premium Version



BACK

08. Built-in Encoder Motor Power Output#2

09. Sensor Interface#2

10. Sensor Interface#1

11. LED Light#2

12. Charging Interface

13. LED Light#1

14. Universal Wheel

15. 6-axis Gyroscope

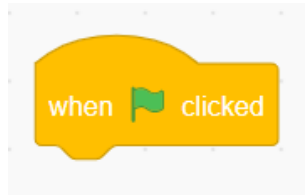
16. Microphone

17. Built-in Speaker

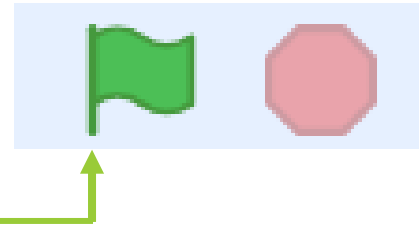


Summary

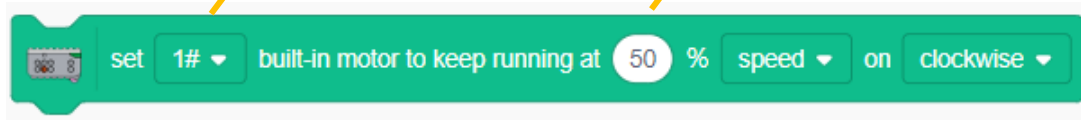
2. Module Definition



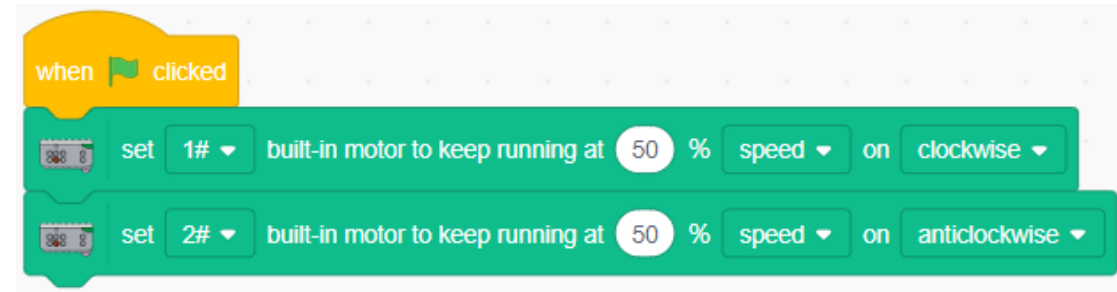
The program runs when the green flag is clicked.



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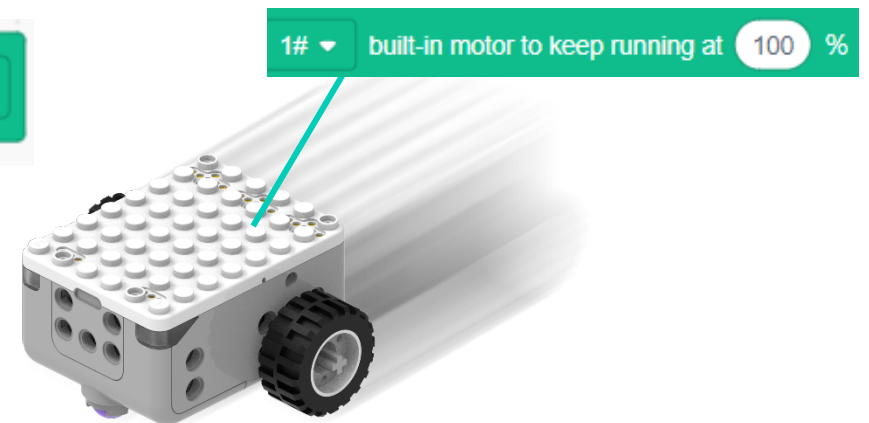
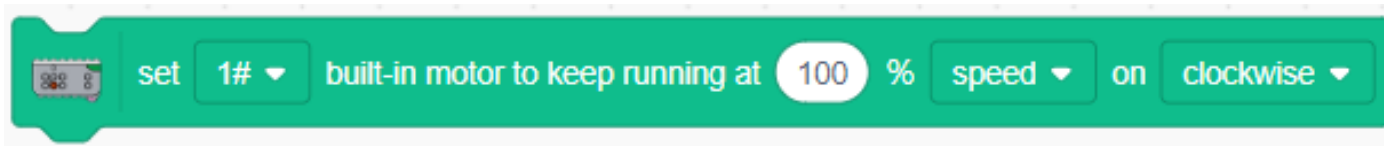
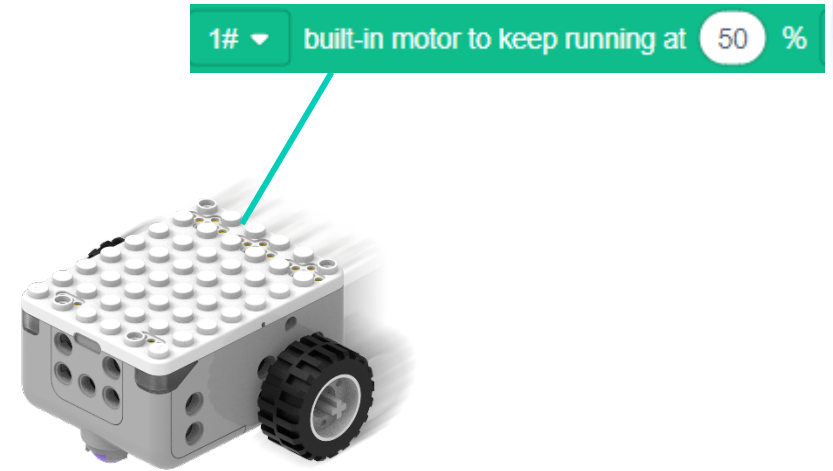
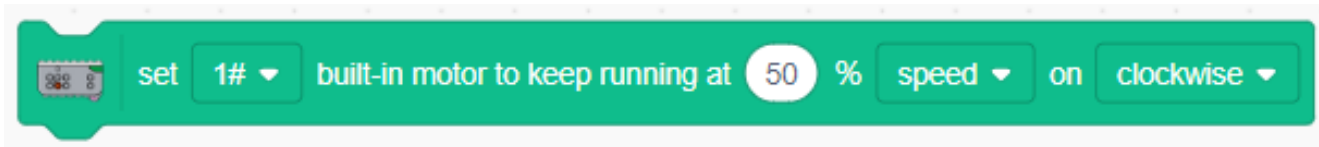
Put these two blocks together, and click the green flag, the robot still start moving.



Summary

3. Change the speed

Try increasing the speed value and see if the performance of the Superbot car improves.



SHARE WITH YOUR PARENTS

Share the knowledge about the Superbot Master Premium with your mom and dad when you get home!

