

makeblock

mBot Add-on Pack- Talkative Pet User Manual

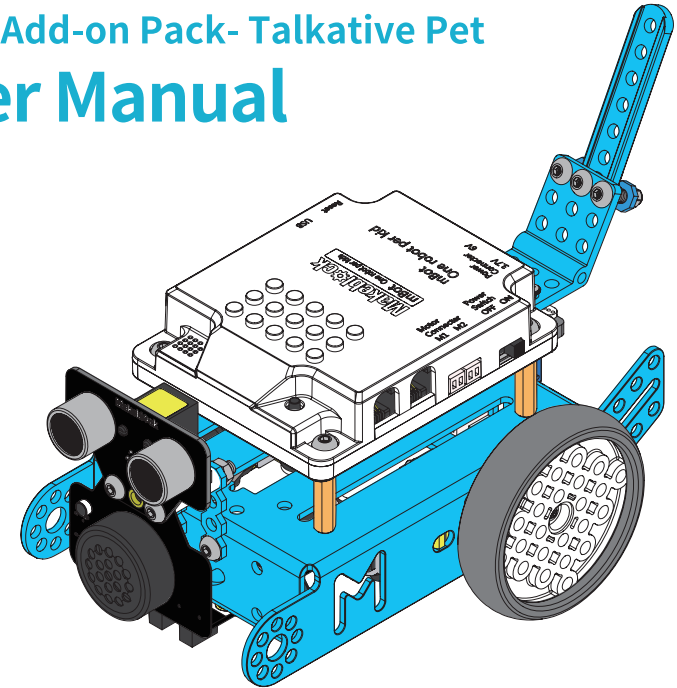
Any information about your experience is highly appreciated.
Please contact us with your feedback.

Makeblock Co., Ltd.

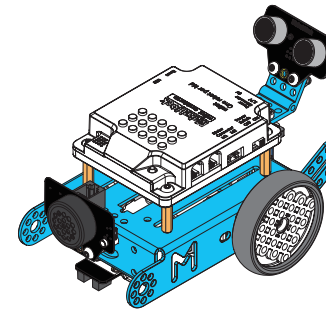
Address: 4th Floor, Building C3, Nanshan iPark, No.1001 Xueyuan Avenue,
Nanshan District, Shenzhen, Guangdong Province, China

Technical support: support@makeblock.com

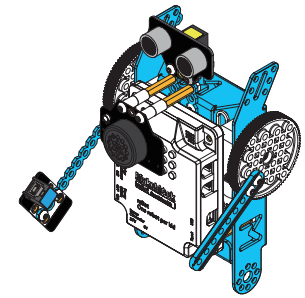
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Robot Dog



Rover



Robot Penguin

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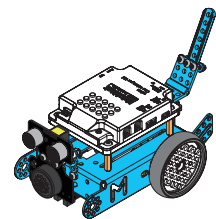
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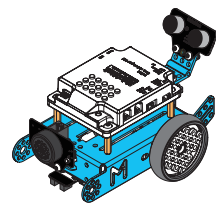
Product Introduction

The mBot Talkative Pet Pack is a 3-in-1 add-on pack for mBot. By using the audio player, micro servo and other mechanical parts in the pack, three cases can be created based on mBot, including "Robot Dog," "Rover" and "Robot Penguin," that can sing and talk, making three times the fun.



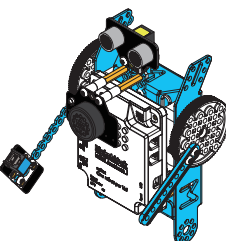
Robot Dog

With a "mouth" that can sing and talk and a naughty "tail," mBot becomes a smart pet - a robot dog that can run, bark, sing, jump, wag its tail to amuse you, and interact with you. It is so cute!



Rover

Ultrasonic sensor is used for repeated detection in the 10 o'clock, 12 o'clock and 2 o'clock positions. If an object is detected ahead, the rover will report it in a cute voice, and emit a red light while heading to the object. When the distance to the object is less than 28cm, the rover will alert you about the obstacle and turn to avoid it.



Robot Penguin

By Changing the case, mBot easily turns into an adorable robot penguin that can tell stories, jokes, sing and dance, and even shake hands with you.

Note:
The add-on pack cannot be used without a Makeblock mBot Li-polymer battery or a 18650 Li-polymer battery, which needs to be purchased seperately.

Parts List

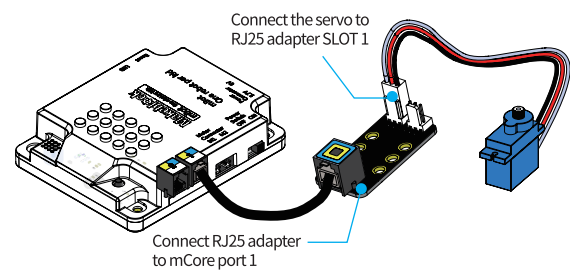
1× Audio Player (SD card included)		15× Plastic Spacer 4*7*3	
1× 9g Micro Servo		6× Plastic Spacer 4*7*10	
1× RJ25 Adapter		14× M4 Nut	
2× RJ25 Cable-20cm		6× M4 Lock Nut	
1× Bracket 120° 3*3		10× M4*8mm Screw	
1× Beam 076		4× M4*16mm Screw	
2× Cuttable Linkage 3 Hole		4× M4*22mm Screw	
3× Cuttable Linkage 4 Hole		4× M4*30mm Screw	
1× Cuttable Linkage		1× Wrench	
1× 18650 Battery Holder			

Installation of the Servo

1. Servo Debugging

In order to turn the servo accurately to the desired angle, the servo must be debugged in advance, using mBlock as follows:

- 1 Refer to the figure below to connect the debugging circuit.



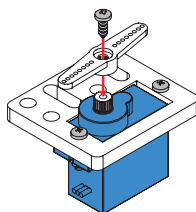
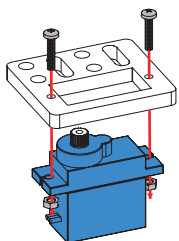
- Launch mBlock, and program as shown in the figure below. Run the program and the servo will automatically rotate to 90°.



- Keep the servo at 90°, and install the servo arm according to the following figure (note the angle between the servo arm and the servo) to complete the debugging.

1:1 M2*10mm Screw (2)
M2 Nut (2)

1:1 M2.2*4mm Self-tapping Screw (1)



2. Servo Installation

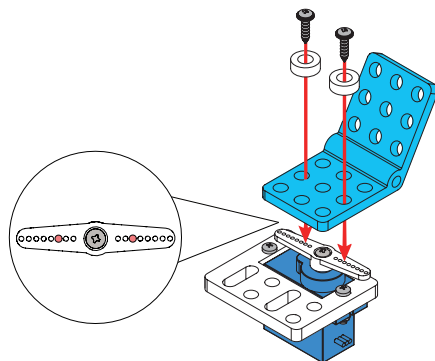
1:1 M2.2*8mm Self-tapping Screw (2)

Plastic Spacer 4*7*3 (2)

Bracket 120° 3*3 (1)

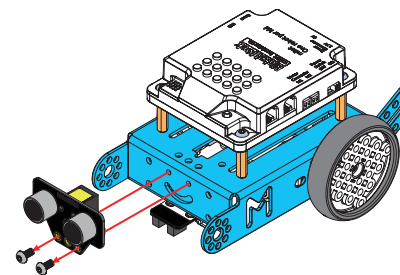
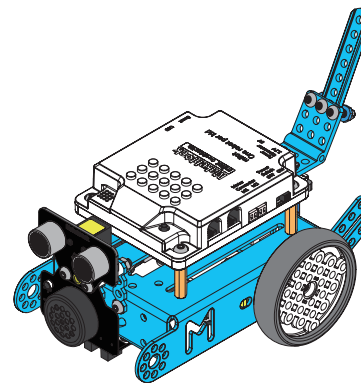
Tips

If it is difficult to install parts onto the servo arm, screw the self-tapping screws into corresponding holes and then remove them, enlarging the mounting holes and facilitating installation of the parts.



Building Instructions

Robot Dog



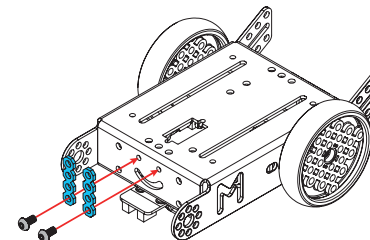
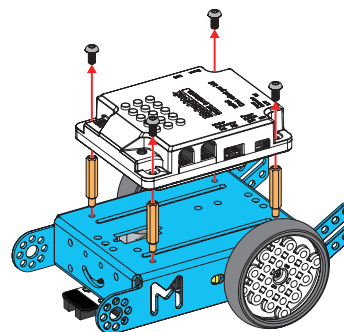
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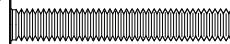




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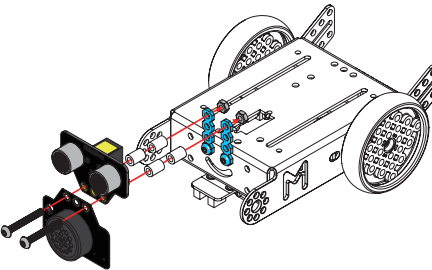
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

1:1 M4*8mm Screw (2)

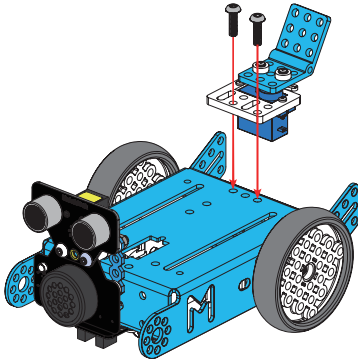
Cutttable Linkage 4 Hole (2)








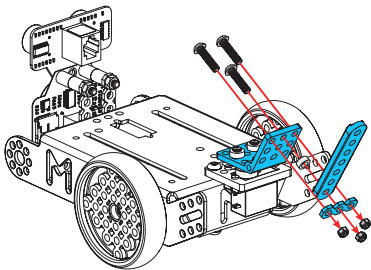
- 1:1  M4*30mm Screw (2)
-  Audio Player (SD card included) (1)
-  Ultrasonic Sensor (1)
-  M4 Nut (2)
-  Plastic Spacer 4*7*10 (4)






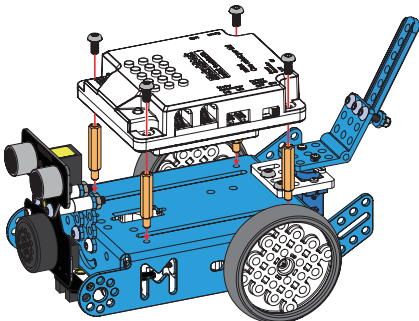
- 1:1  M4*8mm Screw (2)
-  9g Micro Servo (1)





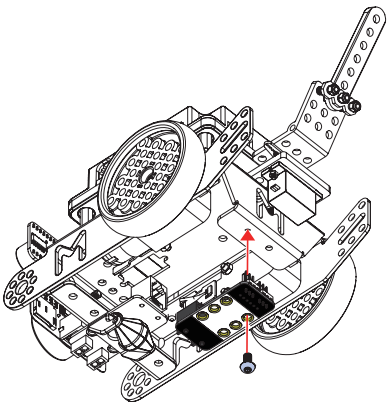
- 1:1  M4*16mm Screw (3)
-  Beam 076 (1)
-  Cuttable Linkage 3 Hole (1)
-  M4 Lock Nut (3)
-  Plastic Spacer 4*7*3 (1)



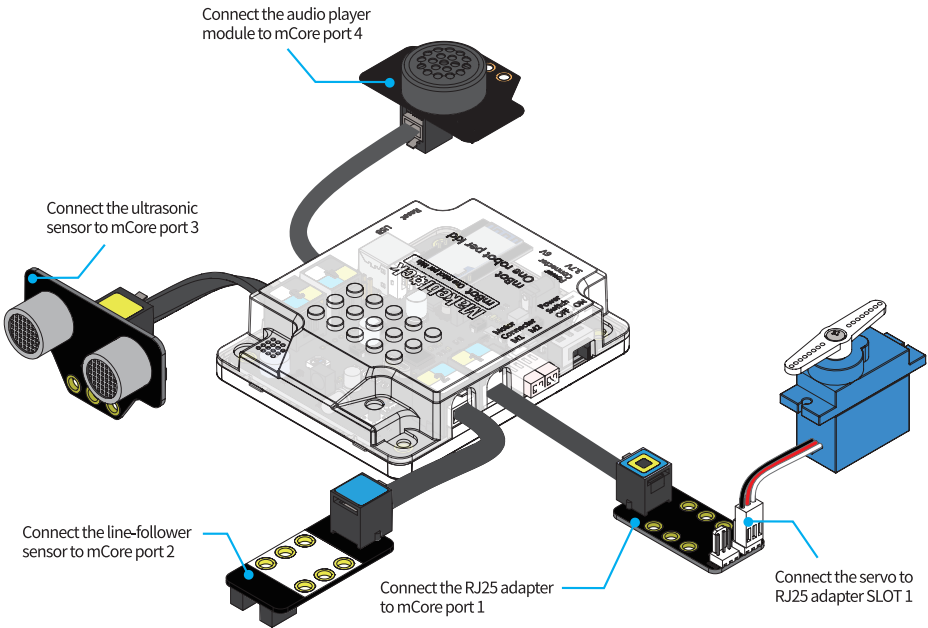
- 1:1  M4*8mm Screw (4)
-  Mainboard mCore (1)
-  M4*25mm Brass Stud (4)



- 1:1  M4*8mm Screw (1)
-  RJ25 Adapter (1)



Refer to the figure below for wiring.

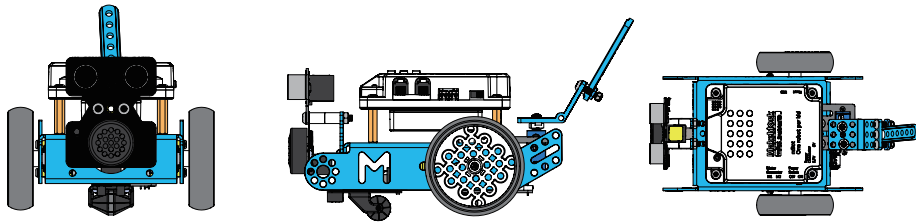
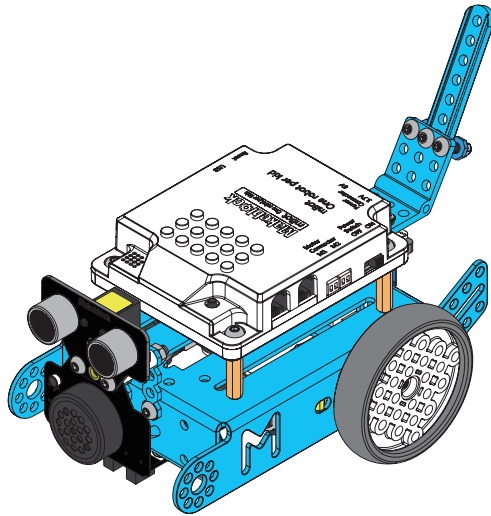


Good job!

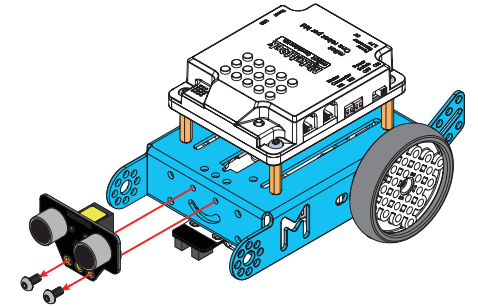
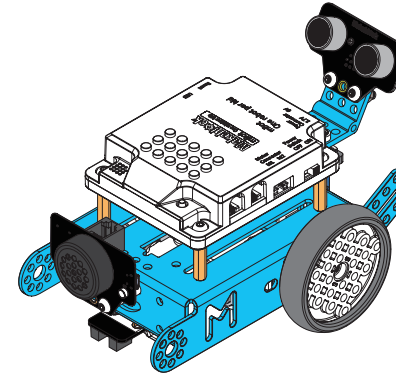
You're almost there! Please download the preset program for the add-on pack from the following link:

www.makeblock.com/steam-kits/mbot#add-on-packs

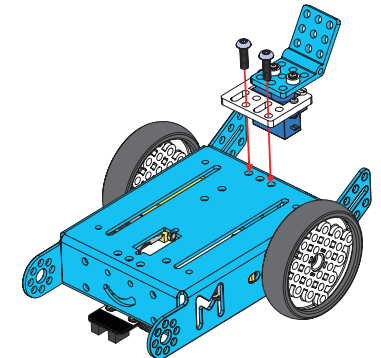
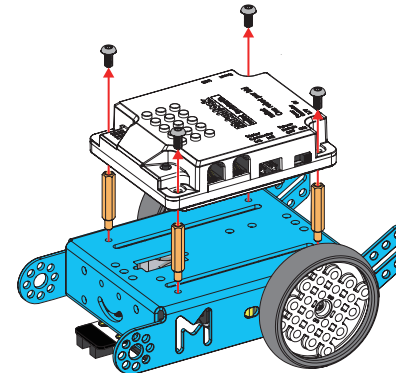
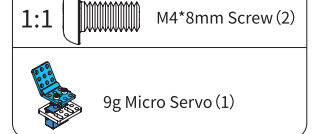
Upload the program into your robot, then play with it!



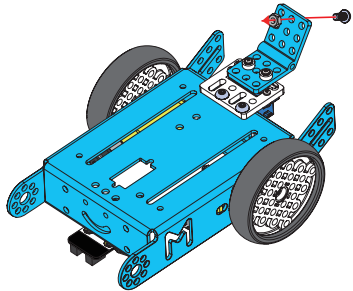
Rover



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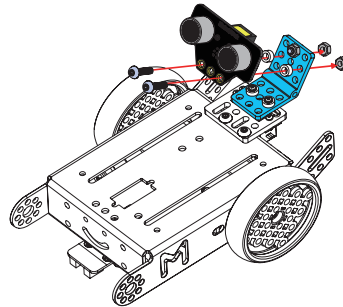


- 1:1 M4*8mm Screw (1)
- M4 Nut (1)



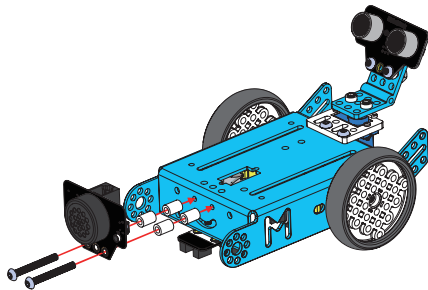
- 1:1 M4*16mm Screw (2)

- Ultrasonic Sensor (1)
- M4 Nut (2)
- Plastic Spacer 4*7*3 (2)

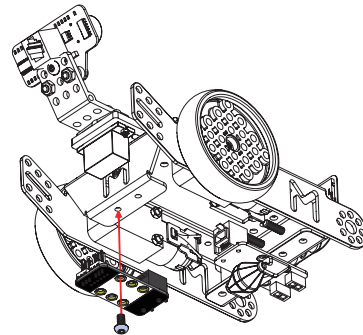


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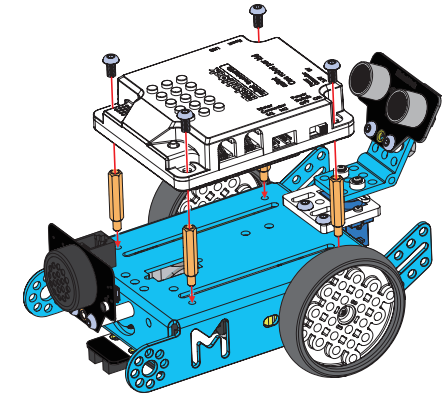
- 1:1 M4*30mm Screw (2)
- Audio Player (SD card included) (1)
- Plastic Spacer 4*7*10 (4)



- 1:1 M4*8mm Screw (1)
- RJ25 Adapter (1)

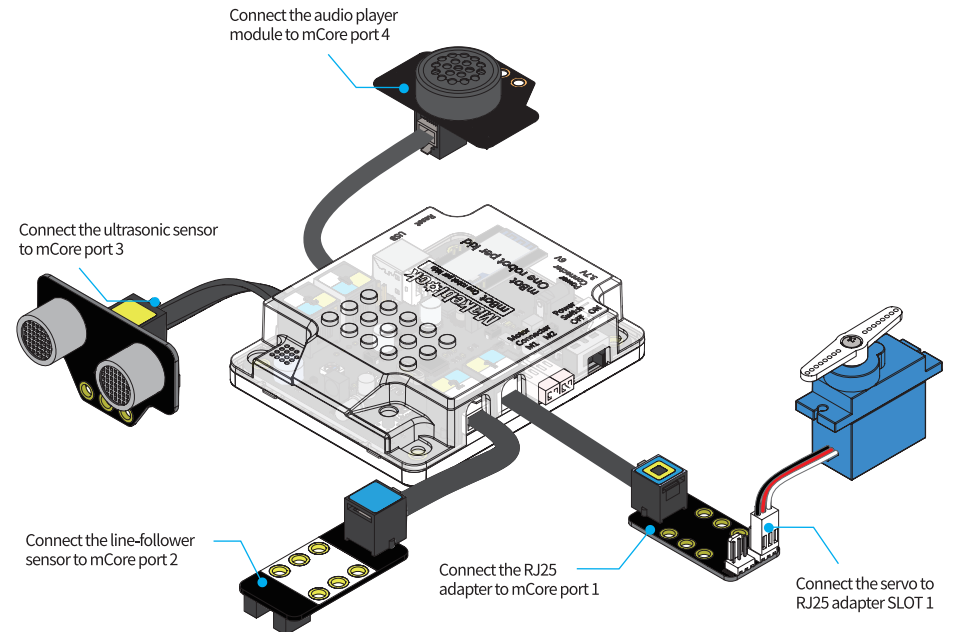


- 1:1 M4*8mm Screw (4)
- Mainboard mCore (1)
- M4*25mm Brass Stud (4)



8
9

Refer to the figure below for wiring.

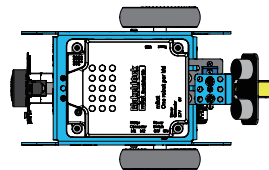
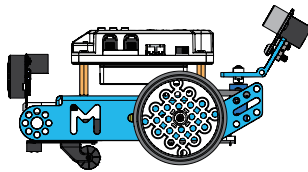
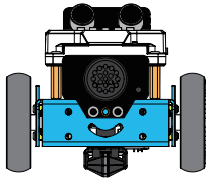
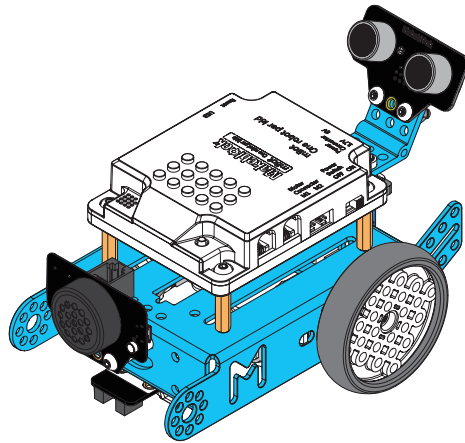


Good job!

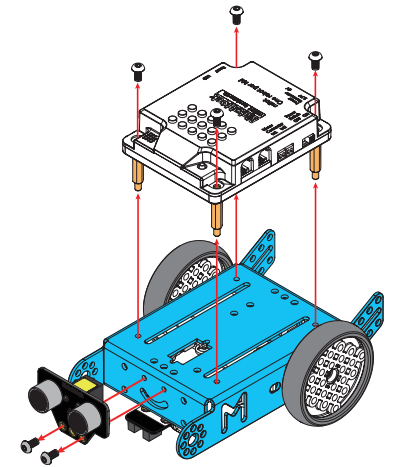
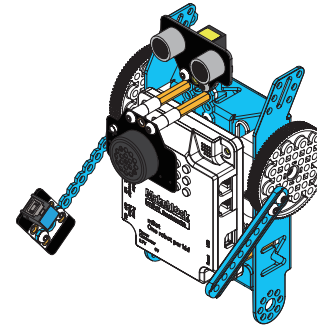
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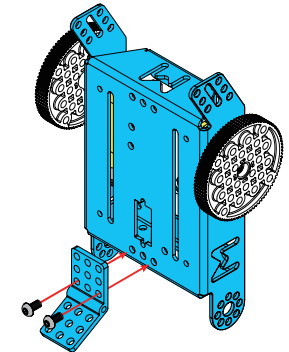
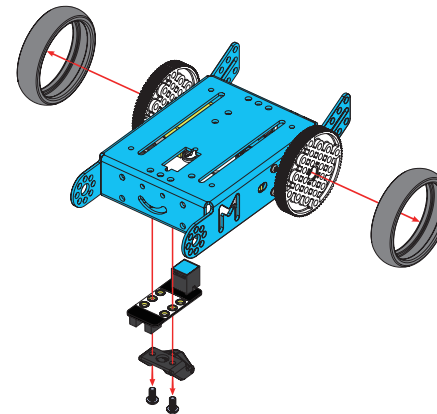
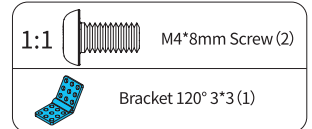
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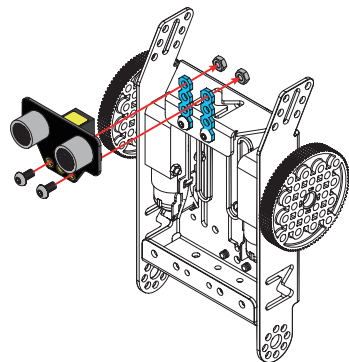
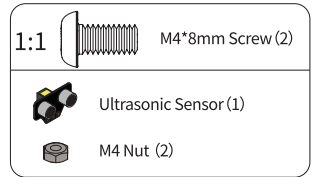
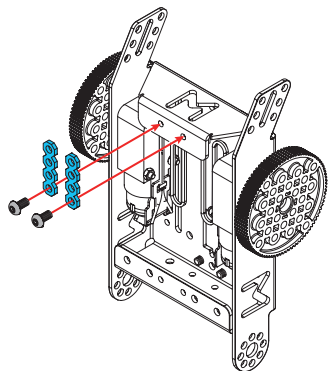
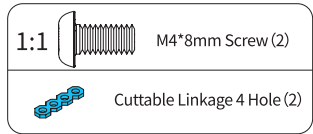


Robot Penguin

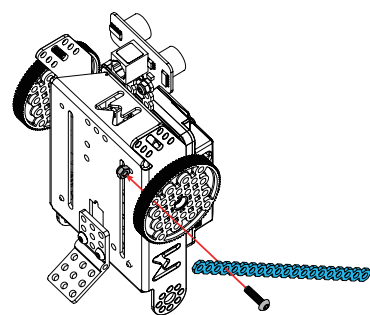
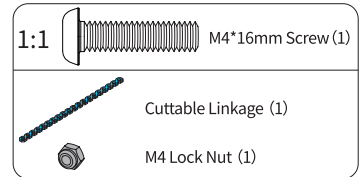
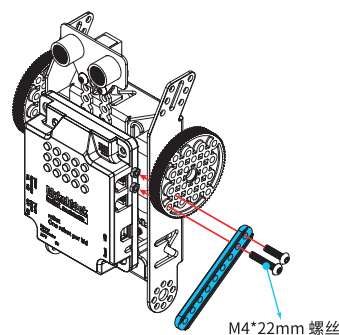
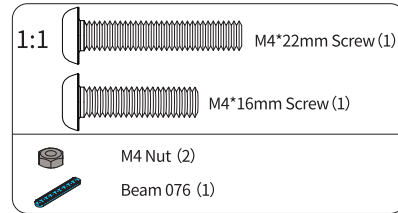
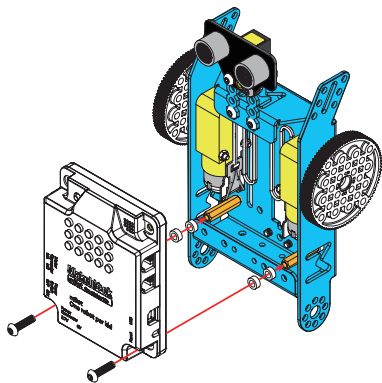
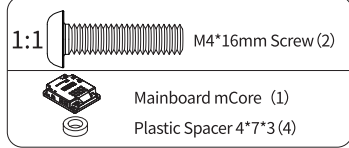
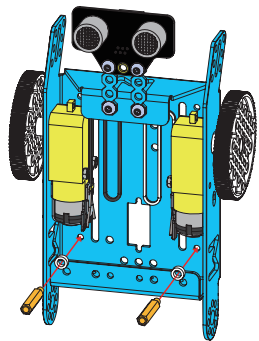


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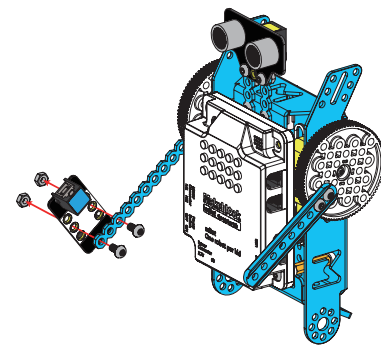
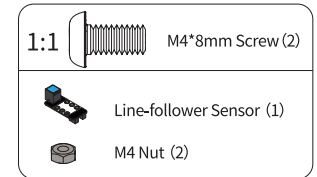
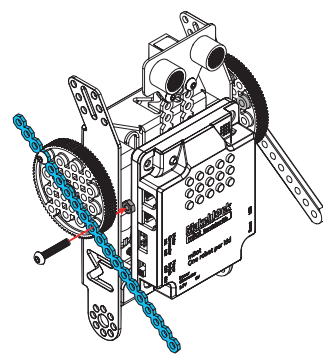
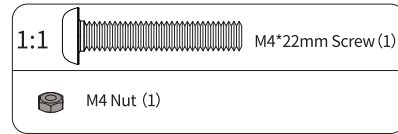




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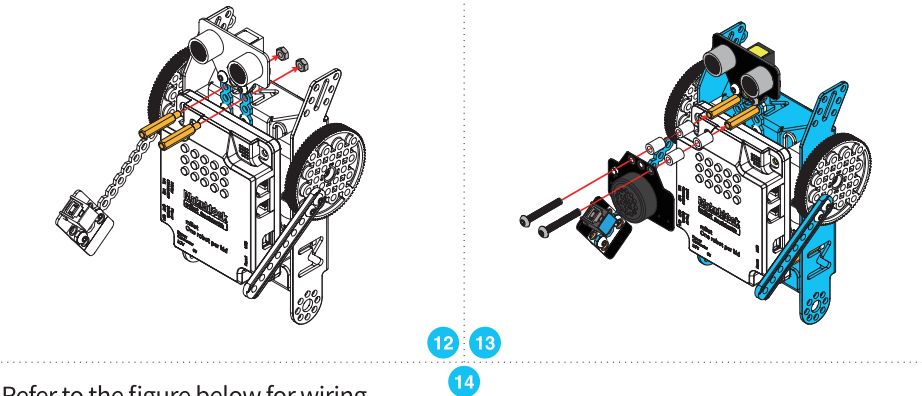


- M4*25mm Brass Stud (2)
- M4 Nut (2)

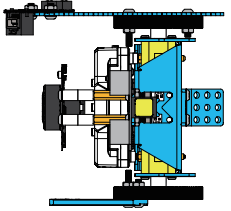
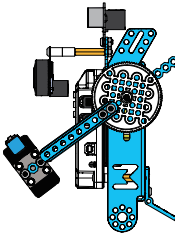
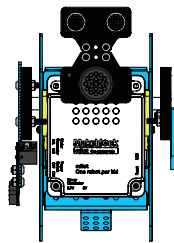
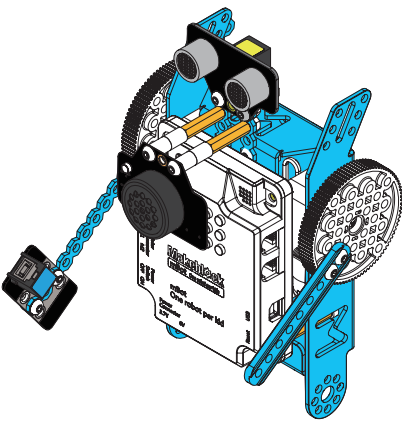
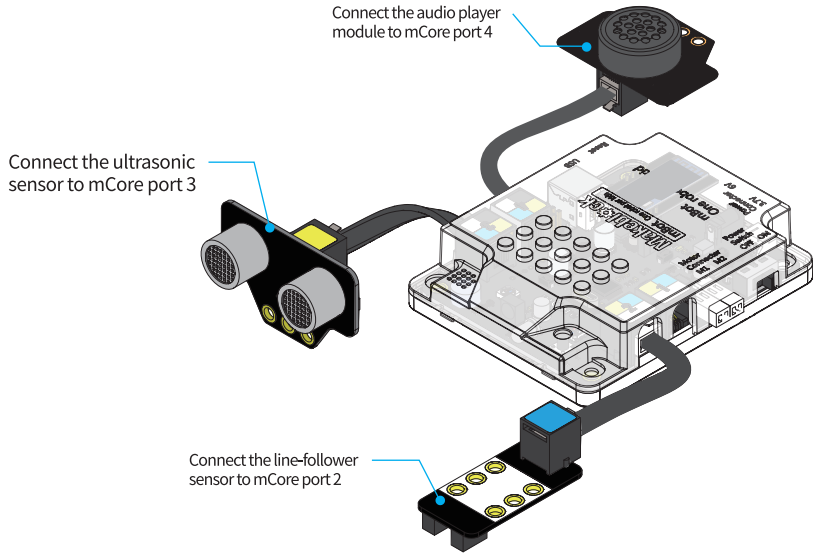
- 1:1 M4*30mm Screw (2)
- Audio Player (SD card included) (1)
- Plastic Spacer 4*7*10 (4)

Good job!

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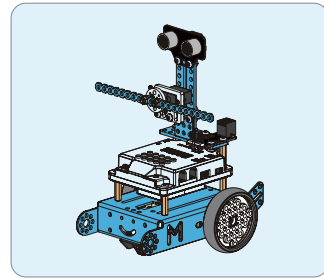
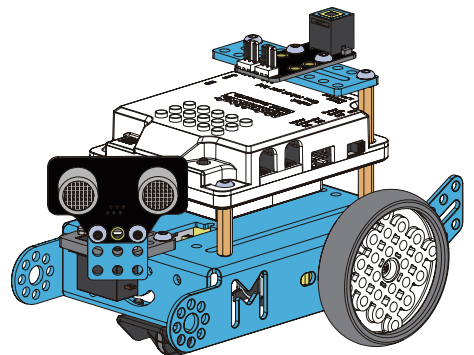
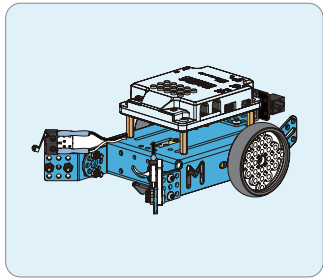
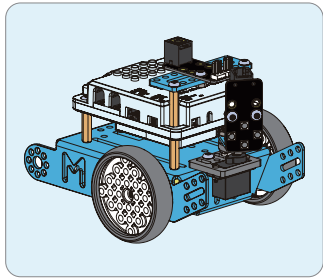
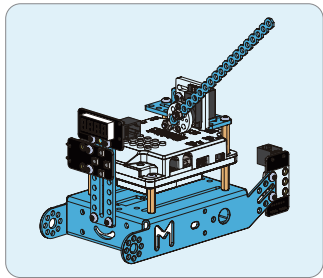
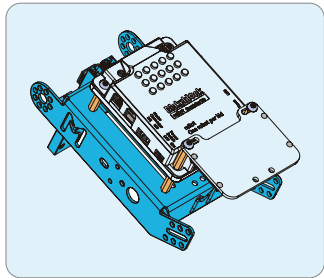
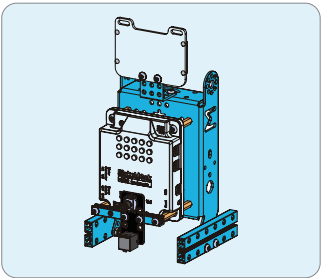
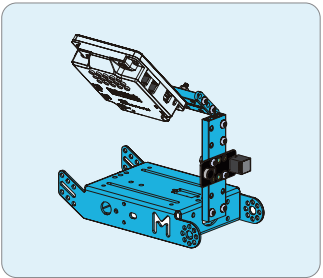
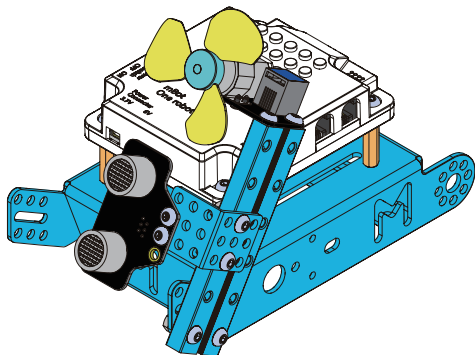
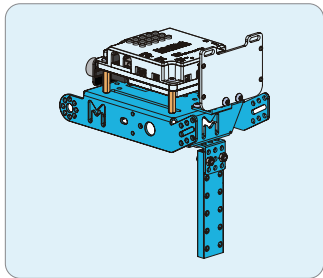


Refer to the figure below for wiring.



More Add-on Packs

Makeblock provides abundant add-on packs, such as Six-Legged Robot add-on pack, Interactive Light & Sound add-on pack , Servo Pack add-on pack etc. Come and create more cool possibilities!





Scan the QR code for more information