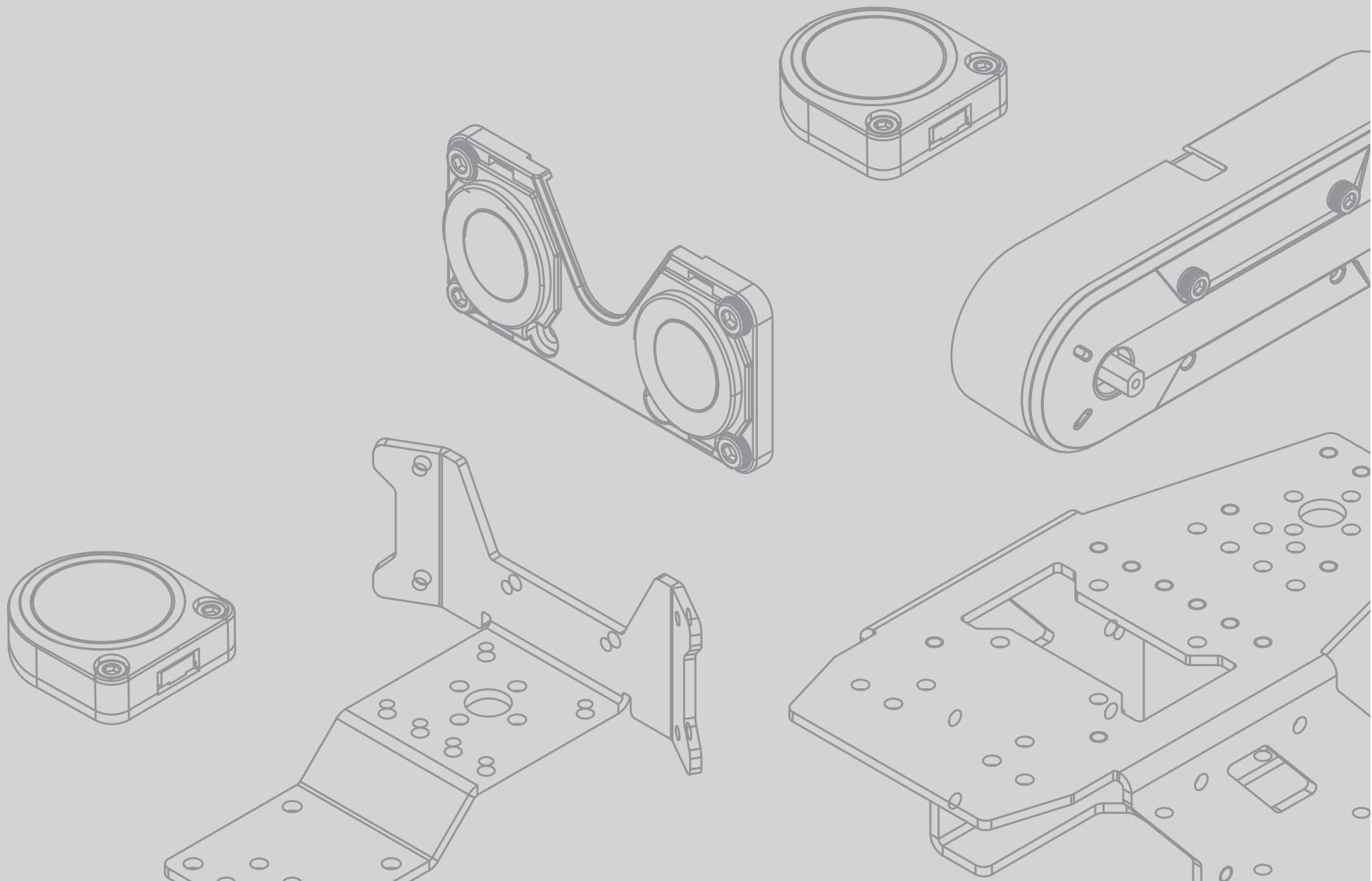


MoonRover Extended

Manual



READ BEFORE START

Dear parents, please read this guide carefully before assembling for the safety of your children while they are playing with the MoonBot Kit.

This product is designed for children aged 8 and older. Younger kids should play under the guidance of parents. Please assemble according to this manual step by step. Wrong assembly may cause broken parts or abnormal behaviors.

WARNING:

1. Be cautious of sharp parts of metal pieces, that running parts may cause pinch.
2. Please assemble or disassemble them carefully.
3. Please keep this product away from heat or water.

CAUTIONS:

1. DO NOT twist the servos when Power is ON.
2. DO NOT throw or drop Robot or any parts.
3. DO NOT cover the camera, as covering the camera will affect the recognition result of your MoonBot.

POWER MODULE(Battery)

1. Do not disassemble the lithium battery module to avoid dropping, impacting or squeezing the lithium battery. Avoid using it in humid, low temperature (below 0 degree) and high temperature (above 50 degree). Keep away from fire and do not soak. ;
2. The charging process is a non-linear process. The first 95% of the electricity will be charged quickly, and the last 5% of the electricity will be used for a long time, which is normal;
3. Please charge when the power is at a low level. If the

battery is charged when the battery is at LED4 (100%), LED4 (100%) may be flashing at all times. At this time, it is not necessary to continue charging, and it can be used directly;

4. Although the lithium battery has a perfect protection circuit inside, it is necessary to avoid the following situations during use, overcharging, overdischarging, electrode short circuit, current backflow, high current output;

5. When the lithium battery module is not used for a long time, please keep the lithium battery at 75% of the power for storage;

6. Lithium battery has a certain service life, and its battery capacity will be attenuated with the use time. When the battery life cannot meet the daily use requirements, it is recommended to replace the new lithium battery module;

7. The waste lithium battery module should be disposed of properly and should not be discarded at will.

*因版本更新产品和说明书可能会略有不同，不会影响安装和使用，一切请以实物为准。

SYMBOLS & LEGEND

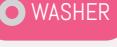


Flip viewpoints



Caution

Screw Case

 M3X4	 M3X8	 M3X12	 COPPER COLUMN	 M3X28
 BEARING	 WASHER	 NUT	 R3035	 R3075
 R3045				



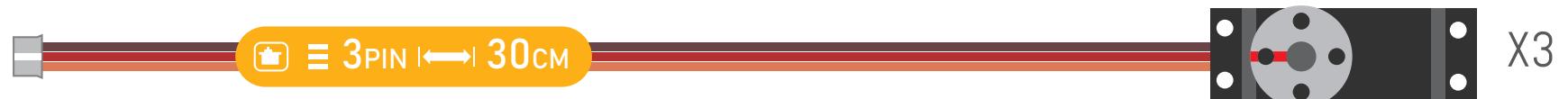
1:1

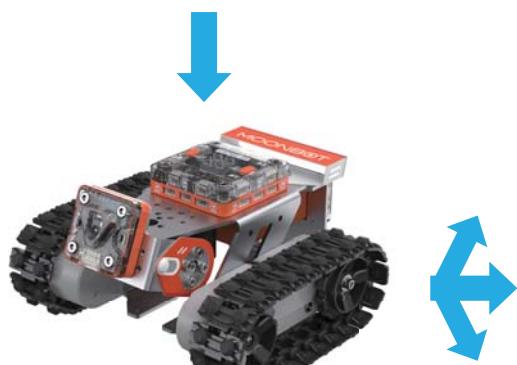


Please compare the length of the screw as shown in Figure 1:1.

WIRES

You can use these wires to connect the modules, Please pay attention to the pin number and length of the wires.





P22 MoonRover

Please complete the basic MoonRover in the Quick Start Guide first. Then find the instructions to construct the extended rover on the right.

1 MoonRover Obstacle avoidance

+19
Pcs

20min
Estimated time

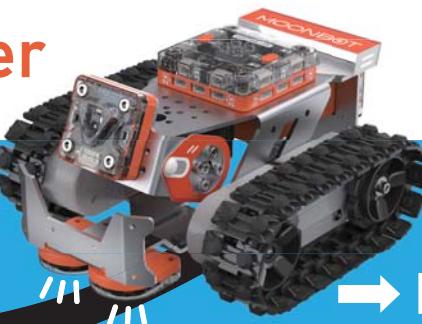


→ P6

2 MoonRover Line Following

+9
Pcs

10min
Estimated time



→ P13

3 MoonRover Bulldozer

+12
Pcs

15min
Estimated time



→ P18

4 MoonRover Gripper

+12
Pcs

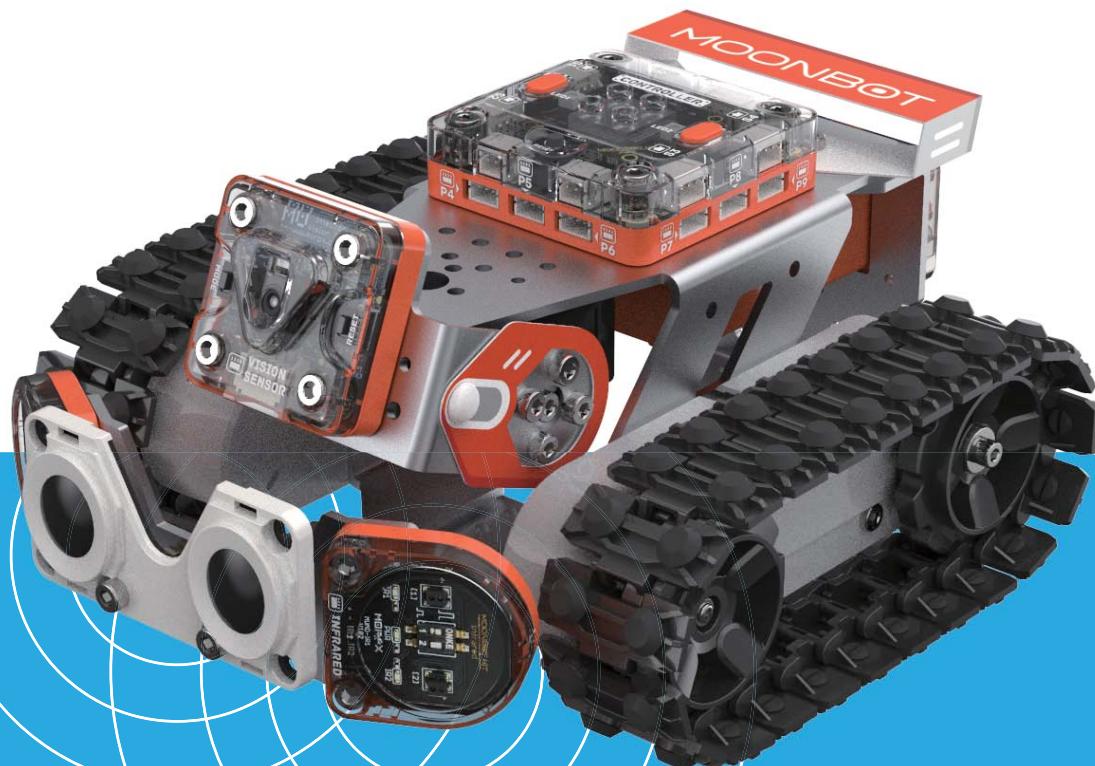
15min
Estimated time



→ P24

1 MoonRover

Obstacle avoidance



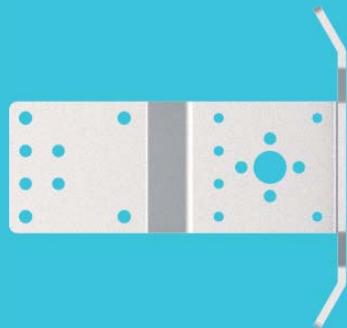
+19

Pcs

20min

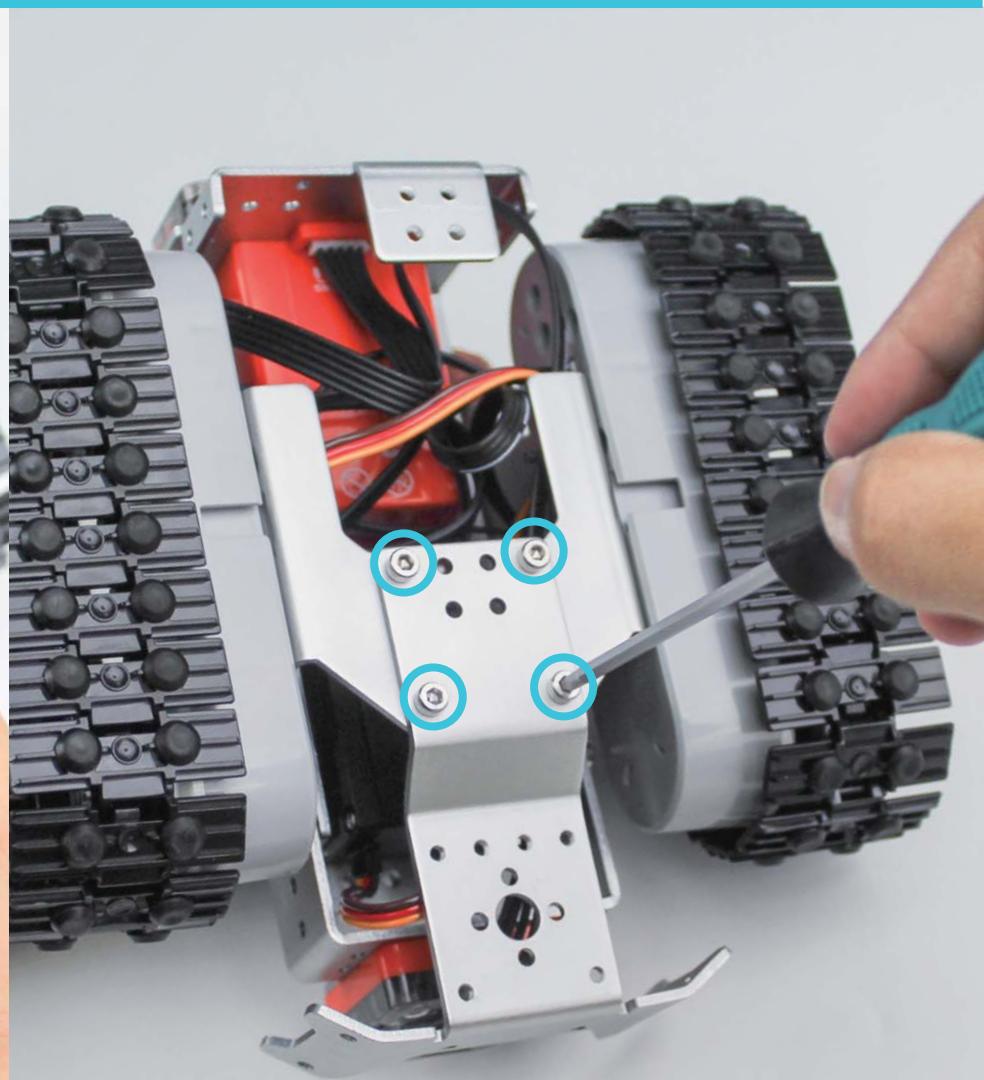
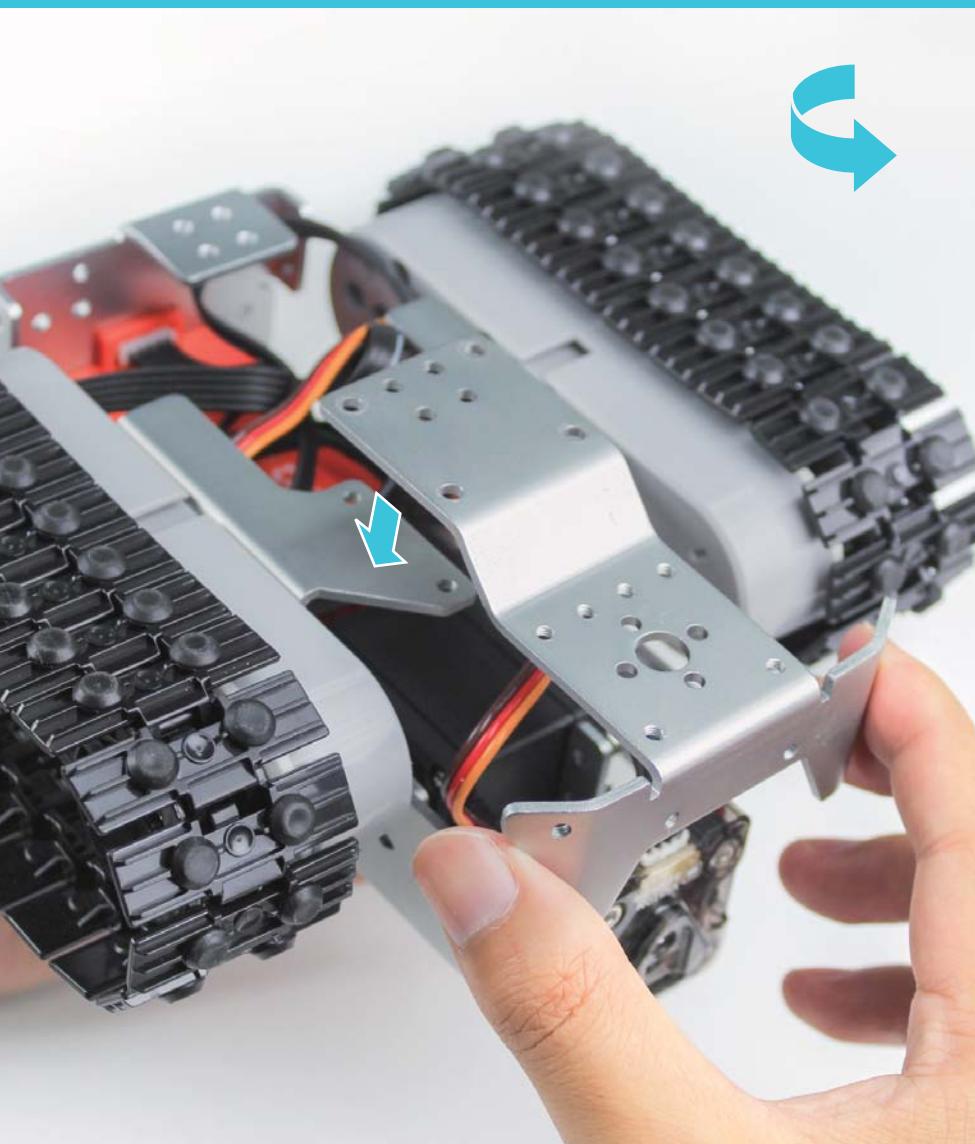
Estimated time

1.1



M3X4

X4

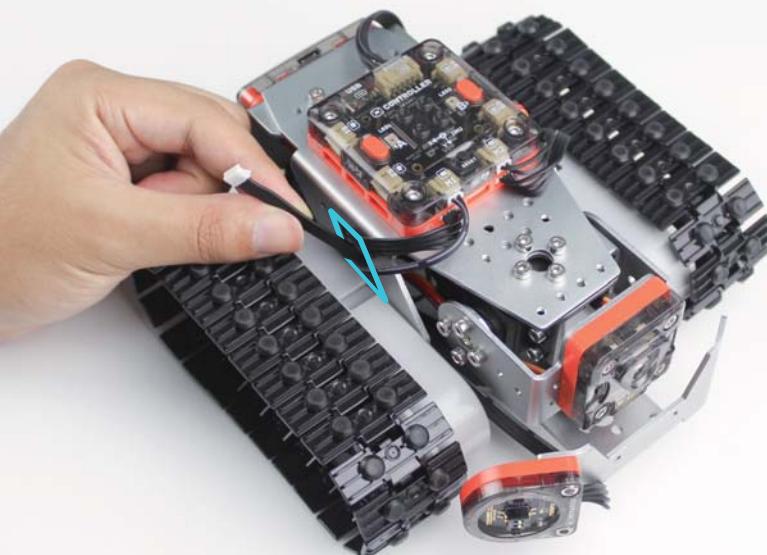
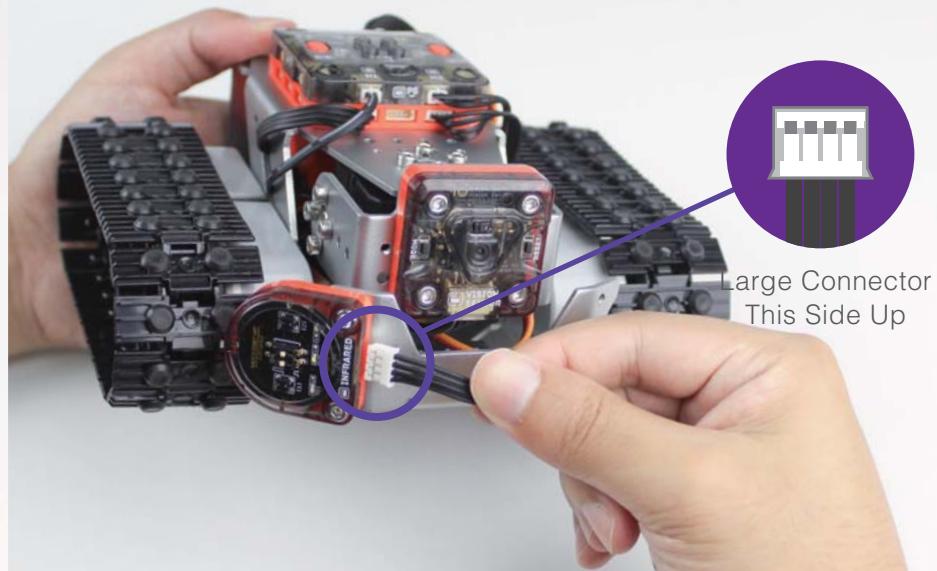
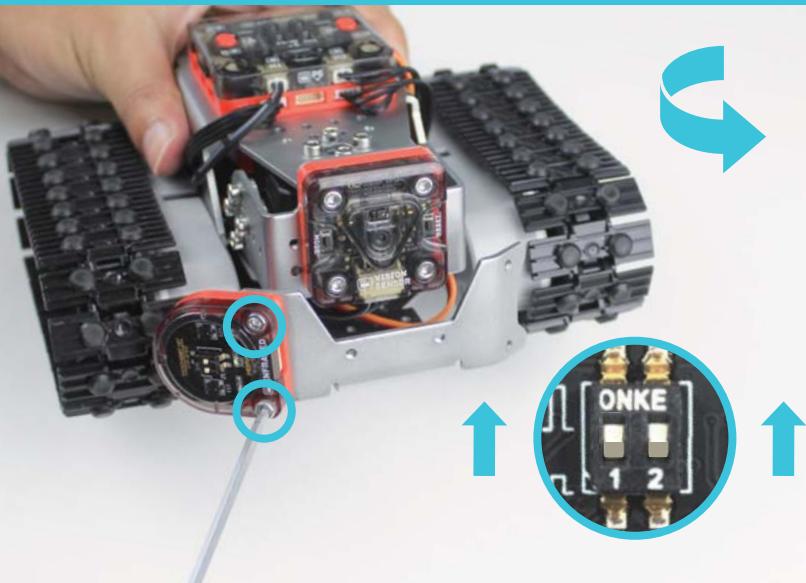


1.2



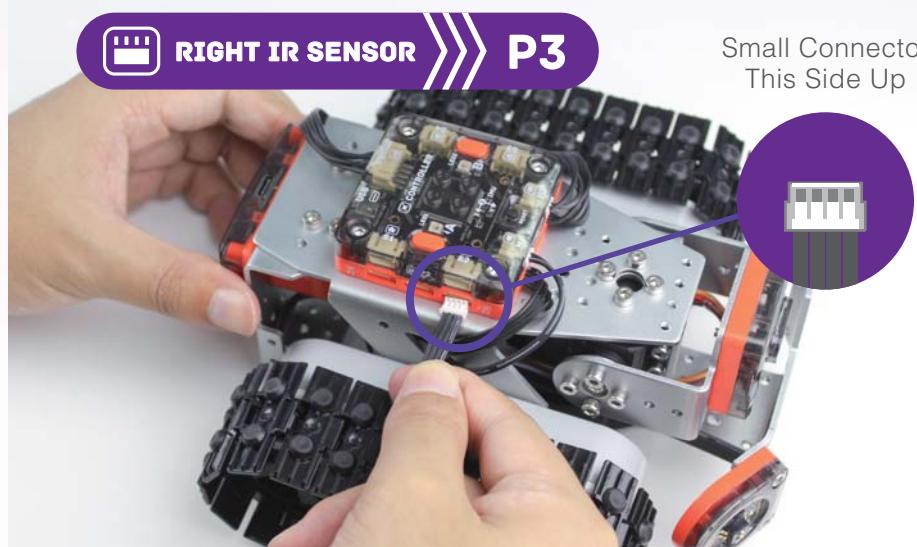
M3X8
X2

4PIN ↗ 18CM



RIGHT IR SENSOR ➞ P3

Small Connector
This Side Up

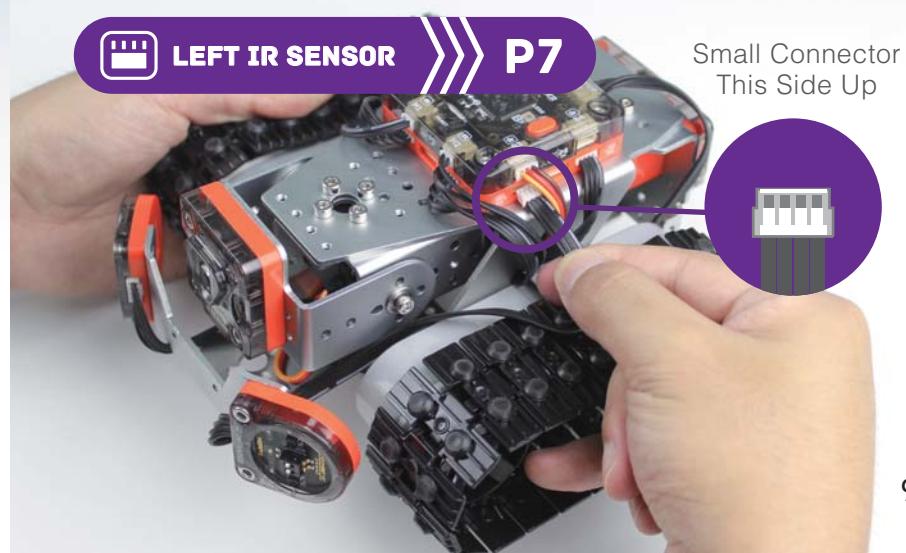
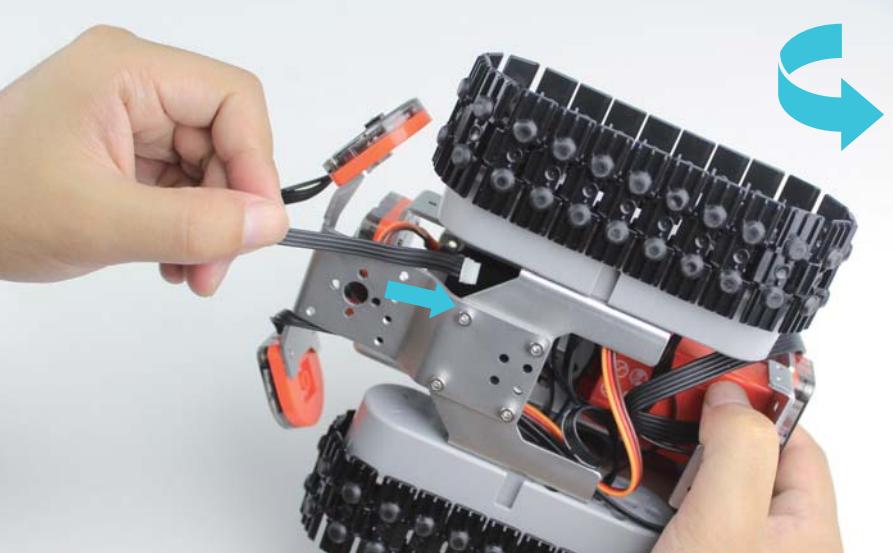
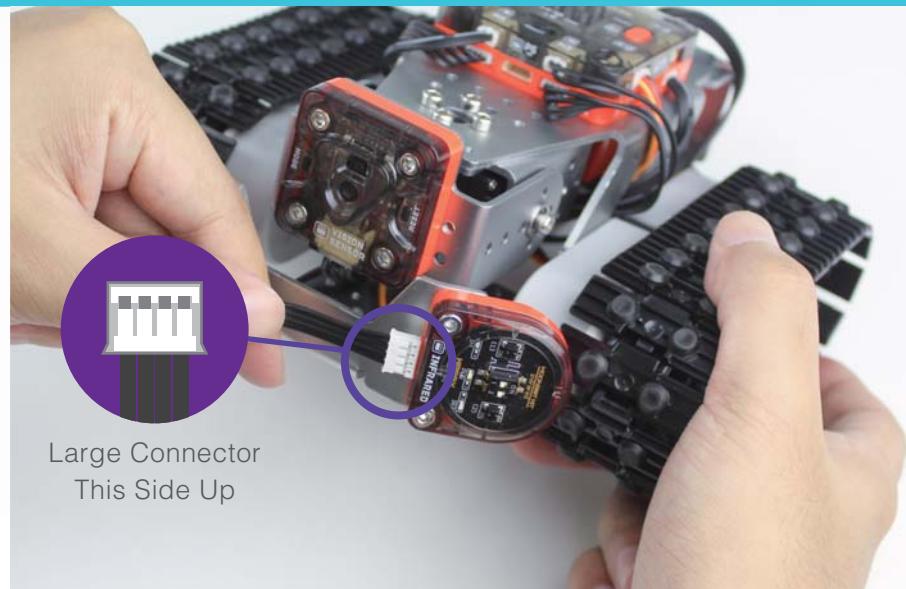
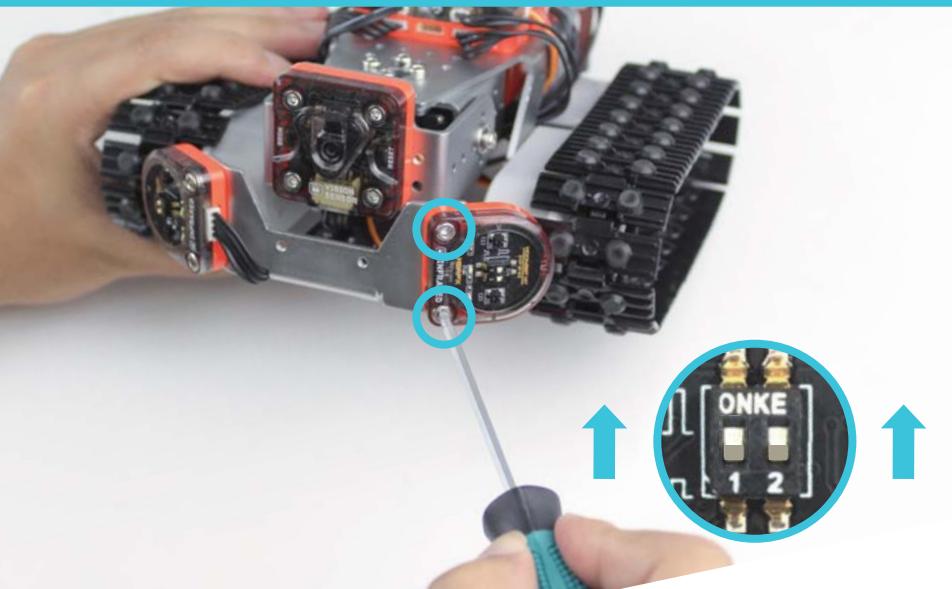


1.3



M3X8
X2

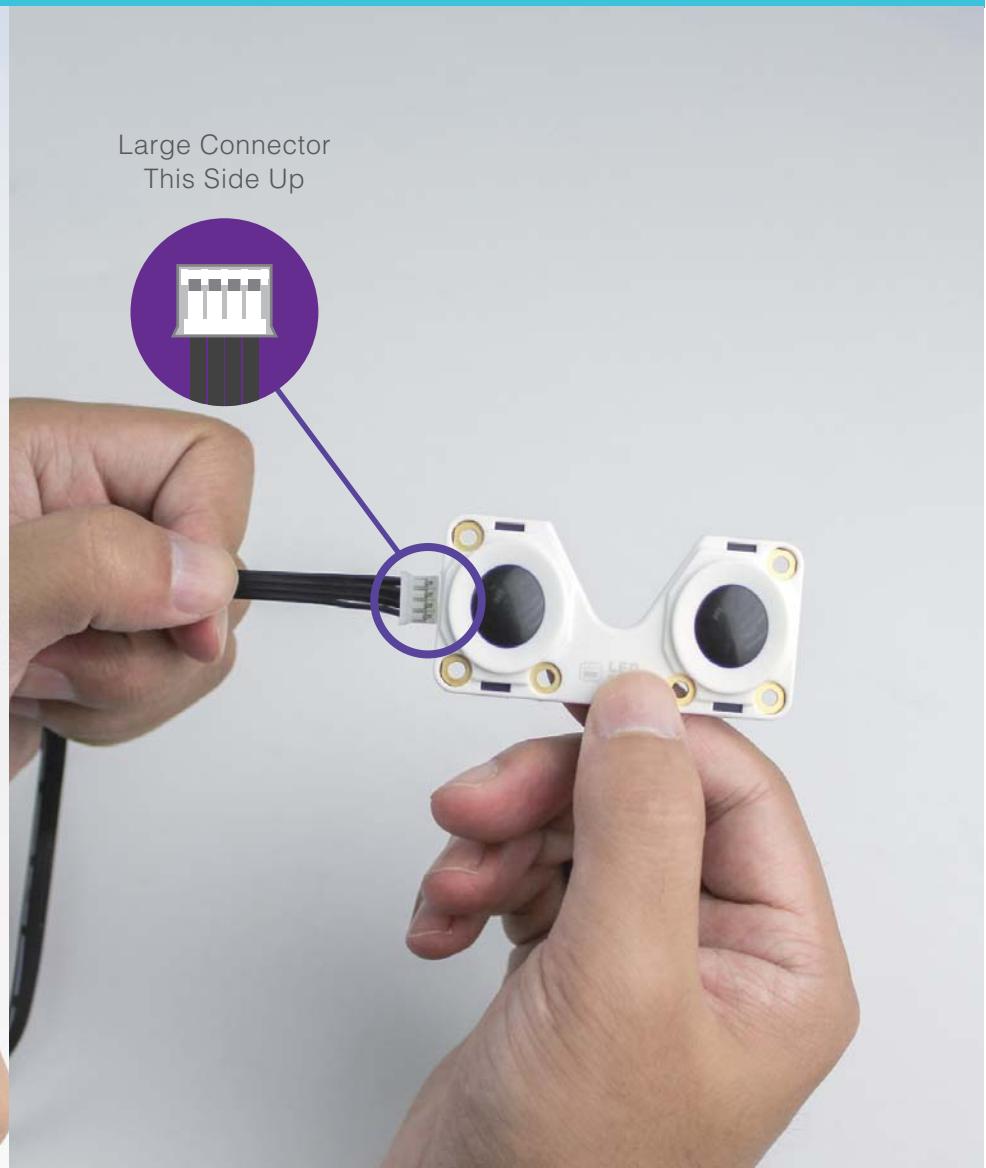
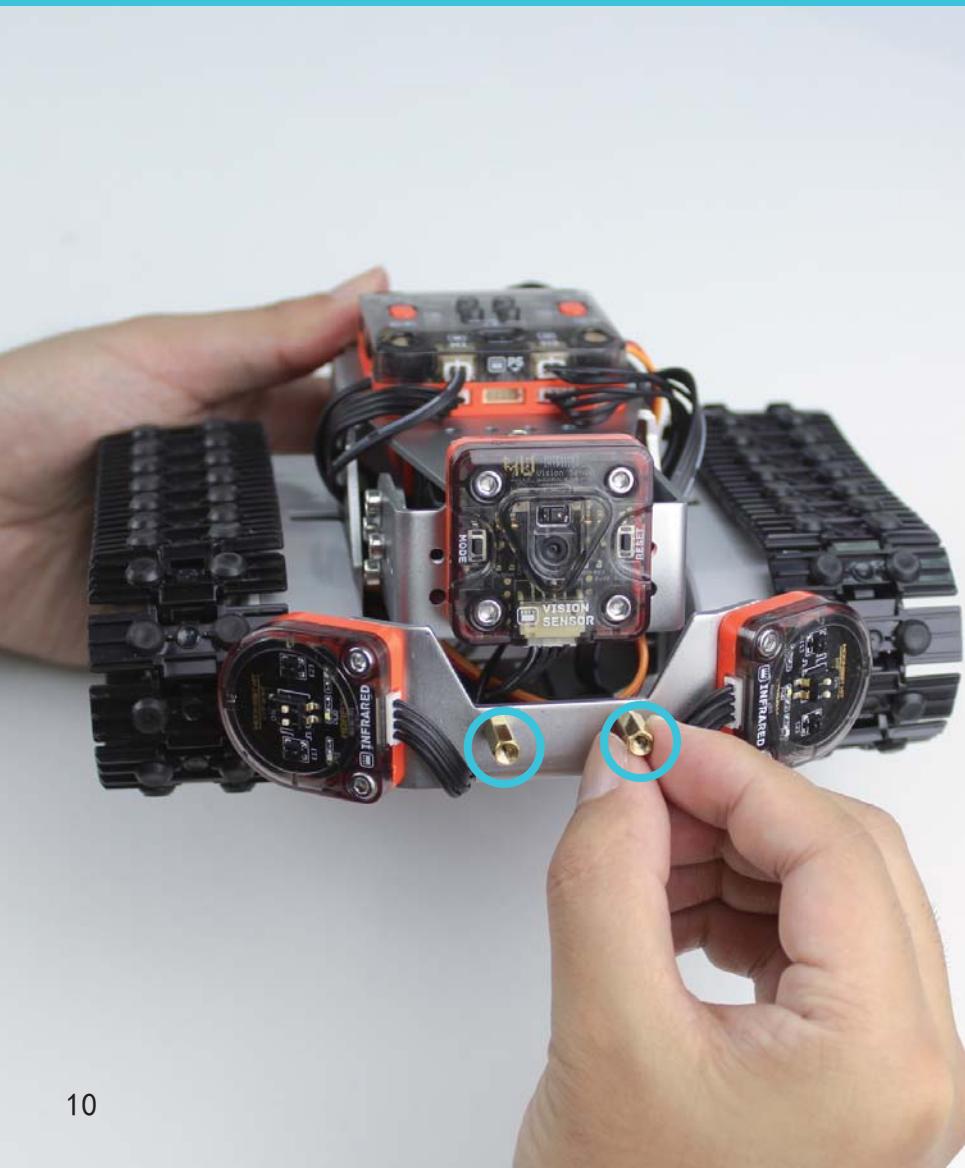
4PIN ↔ 18CM



1.4



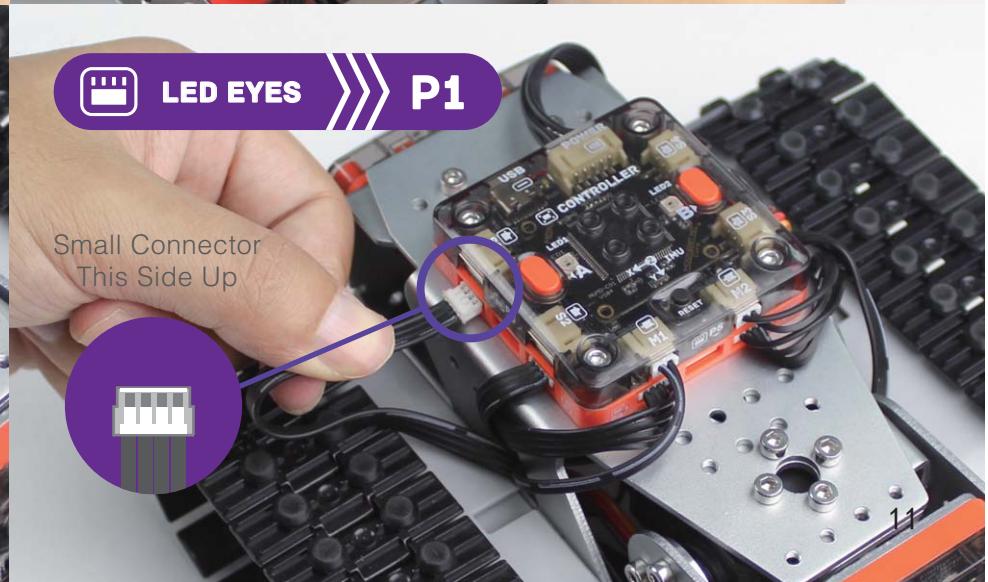
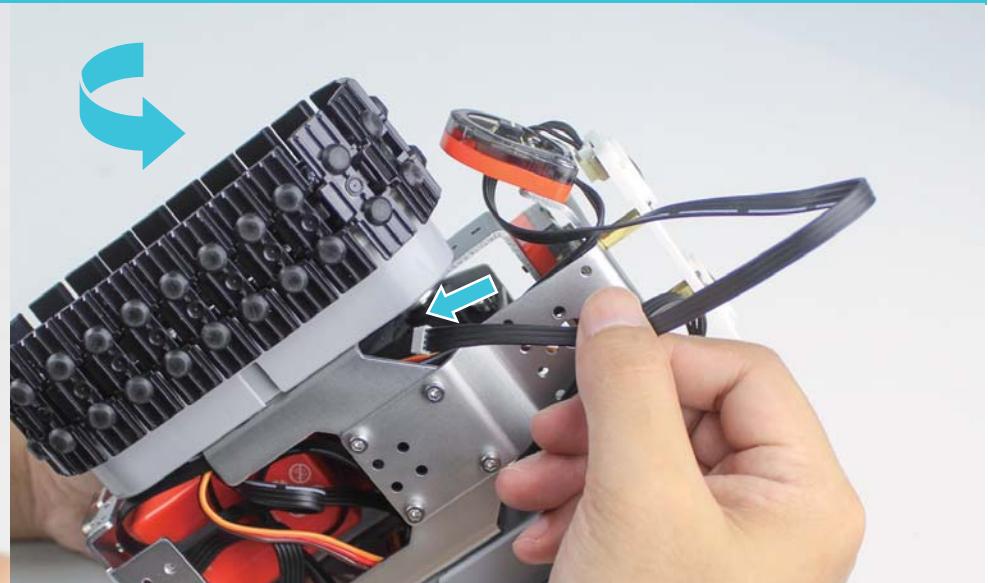
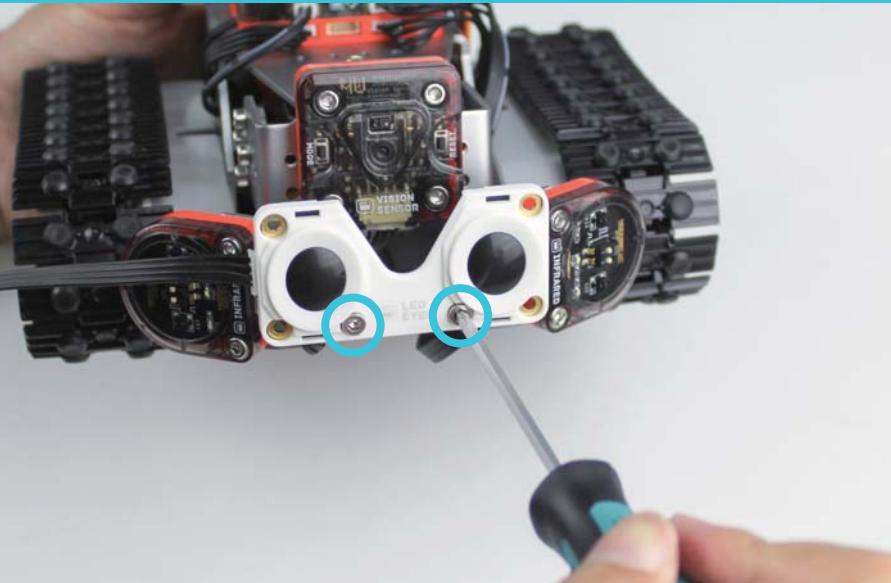
X2



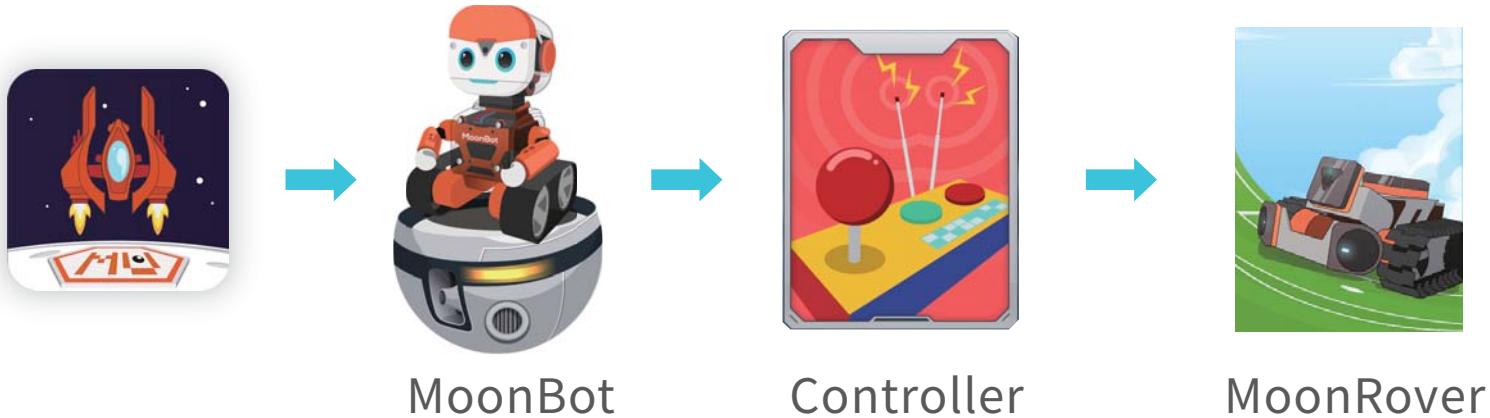
1.5



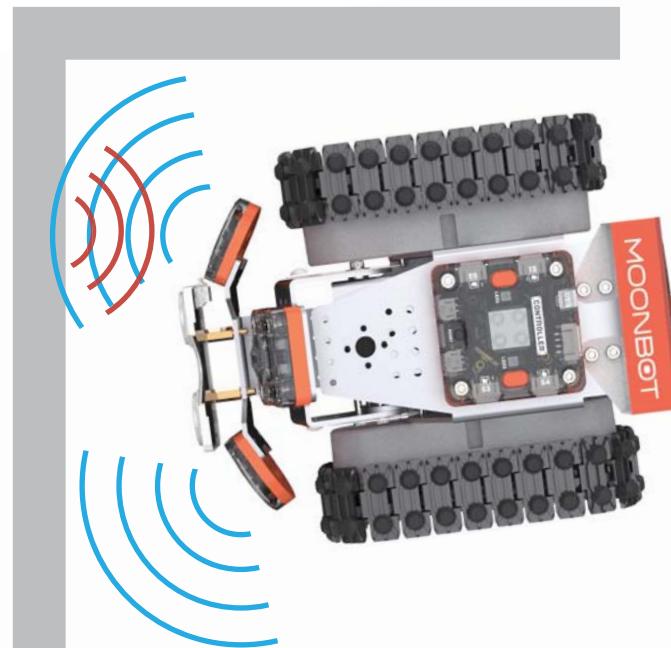
X2



Turn on the Obstacle avoidance



Push this button in the App can switch on the obstacle avoidance. The Infra-red module senses the obstacles in the front and makes the rover turn.



2 MoonRover

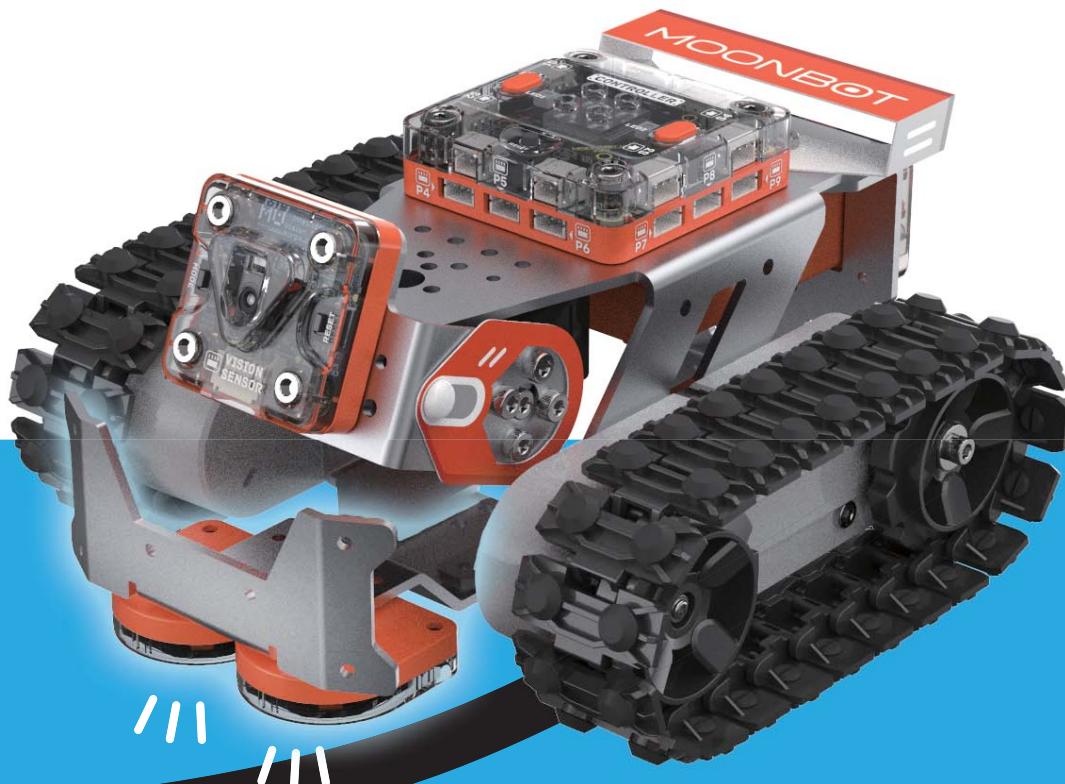
Line Following

+9

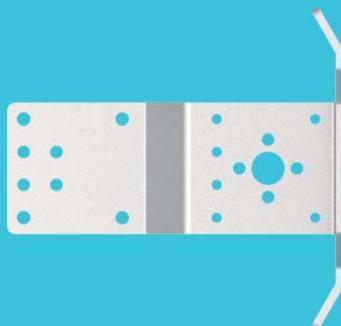
Pcs

10min

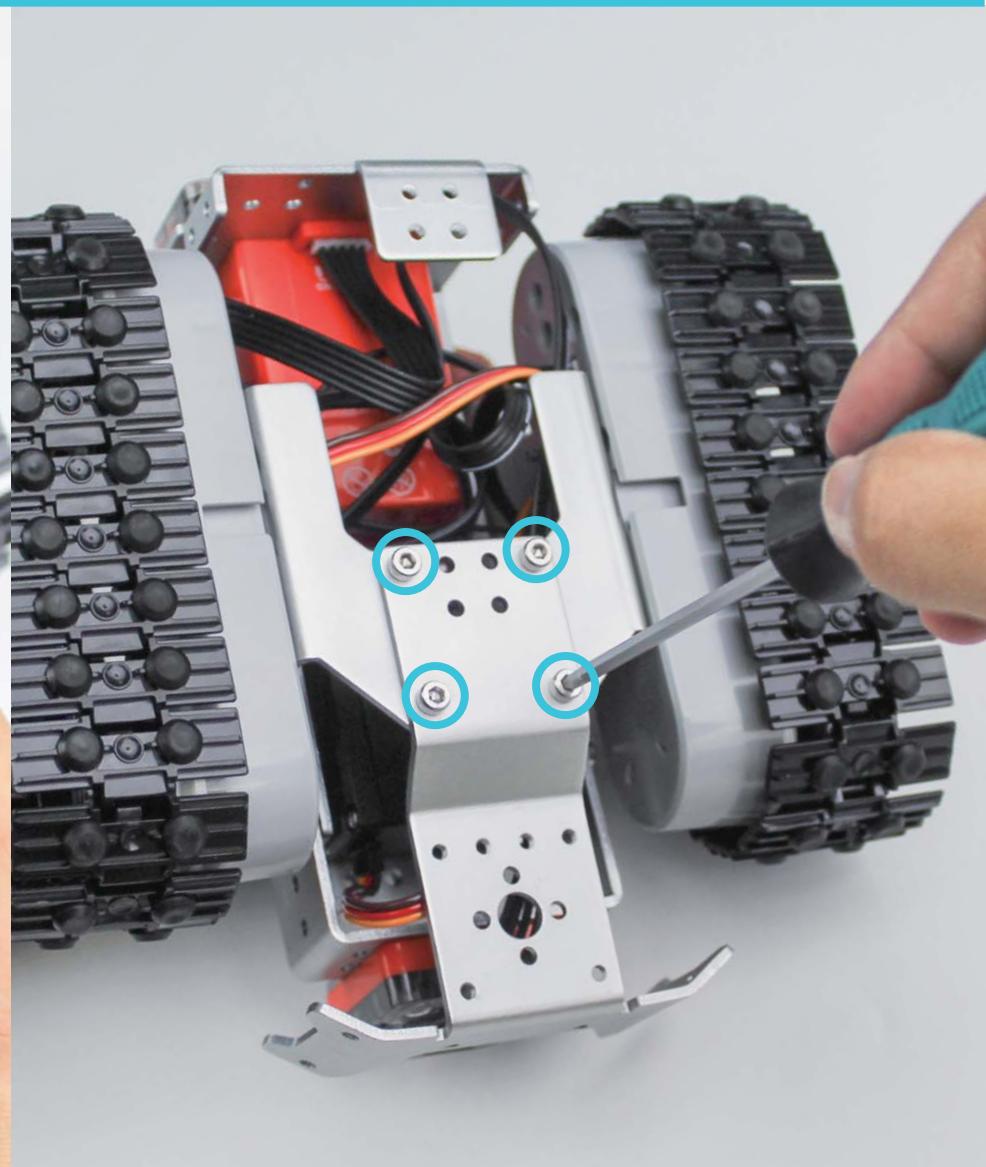
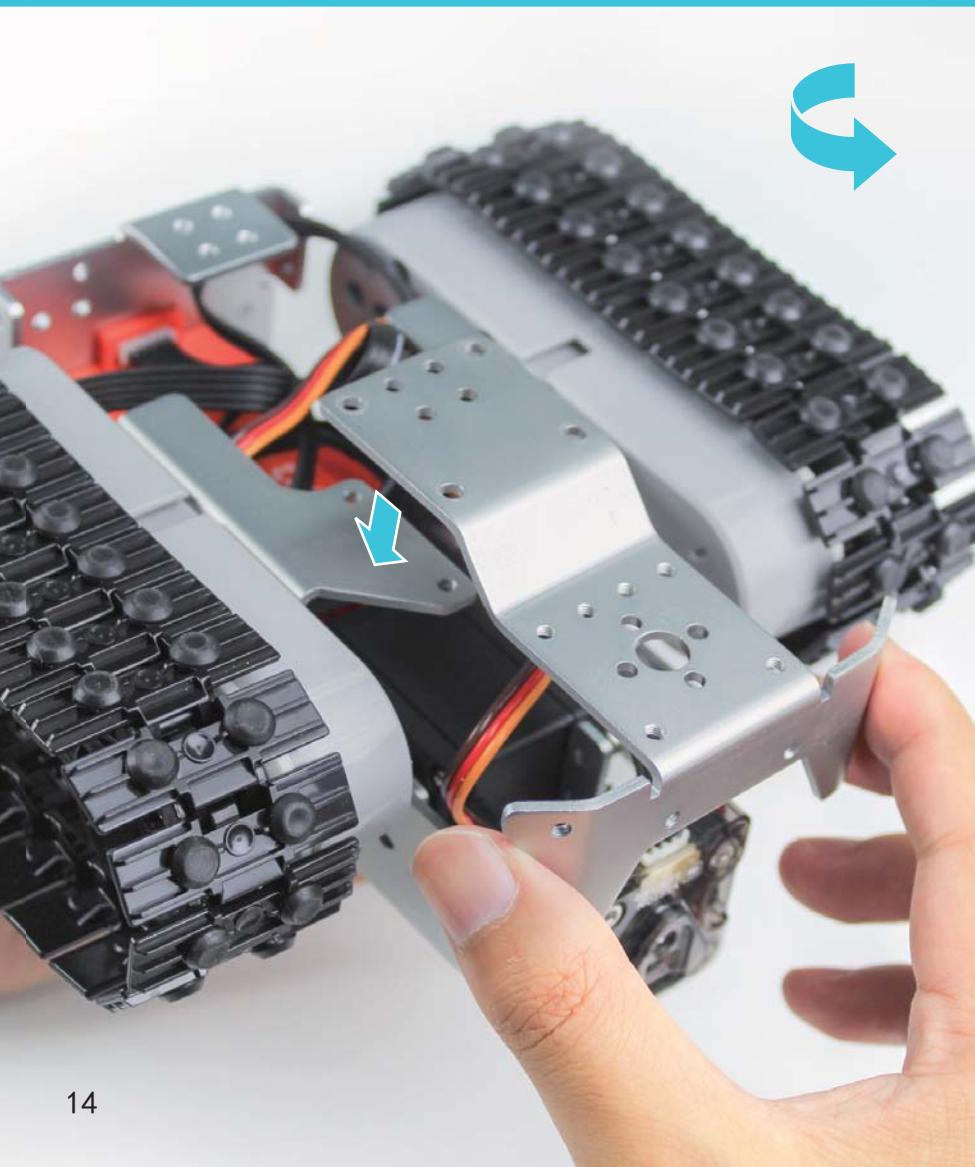
Estimated time



2.1



M3X4
x4

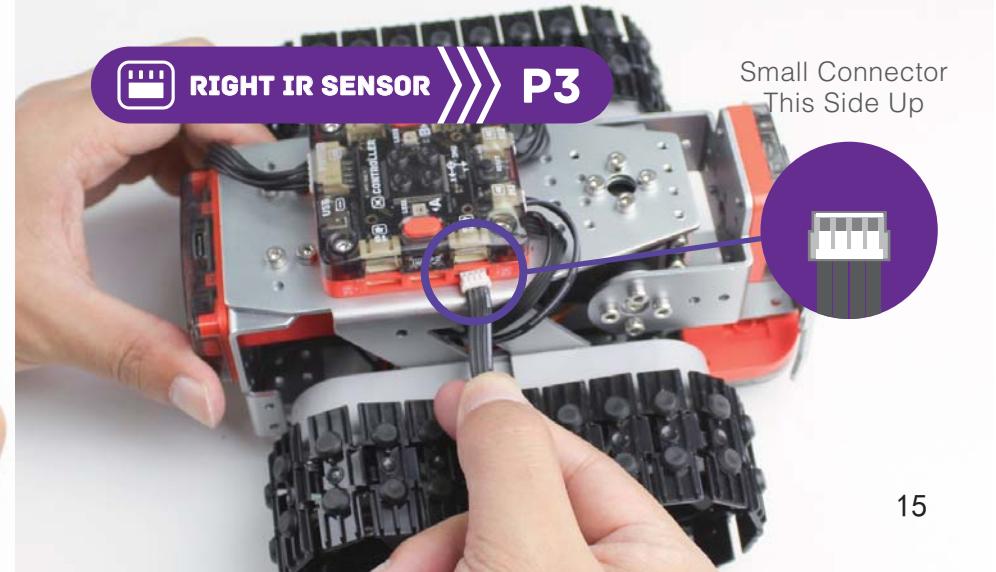
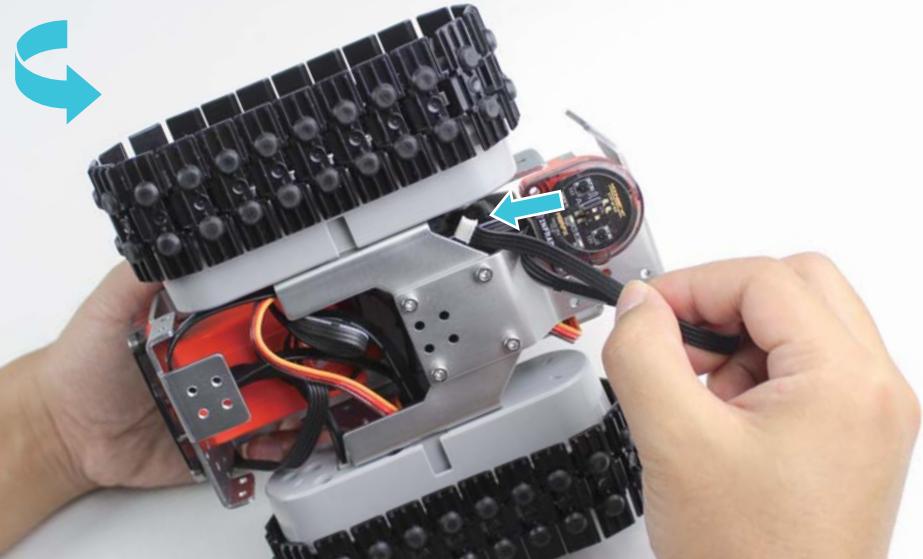
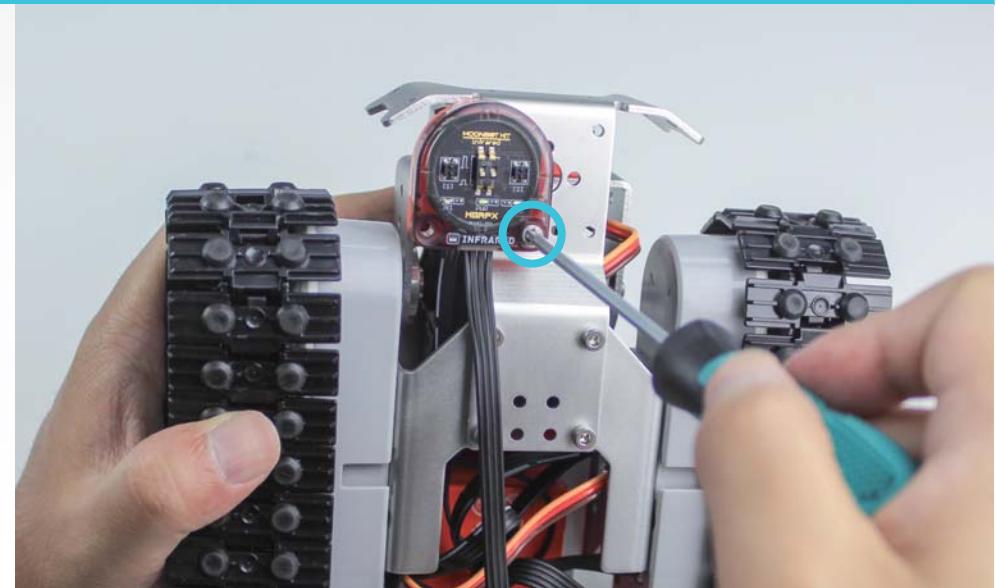
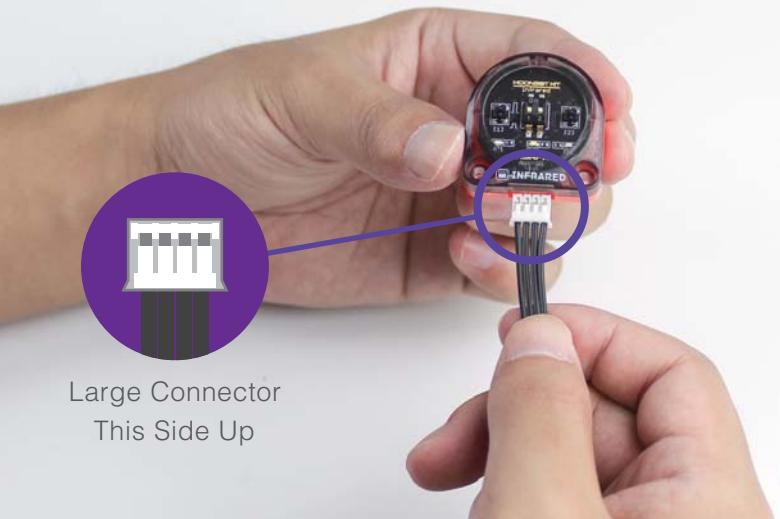


2.2



M3X8
X1

4PIN ↗ 18CM



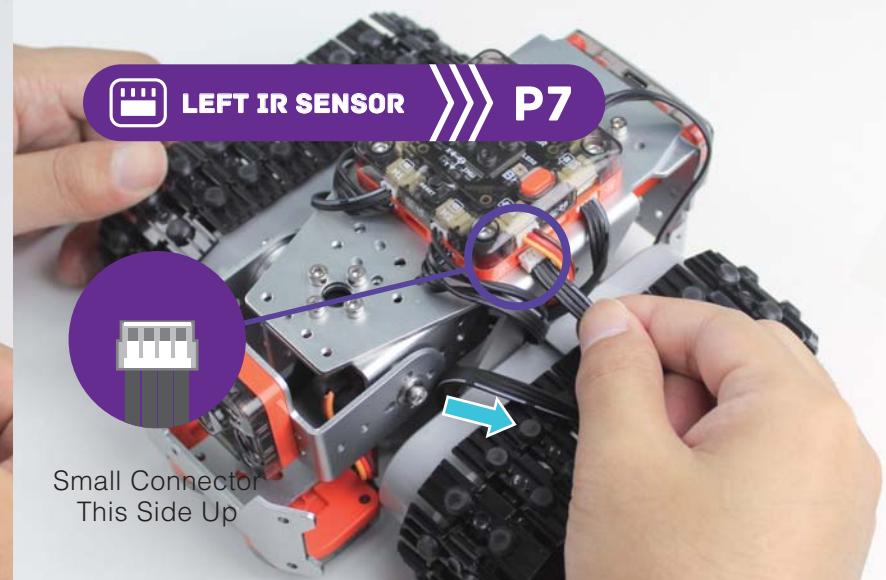
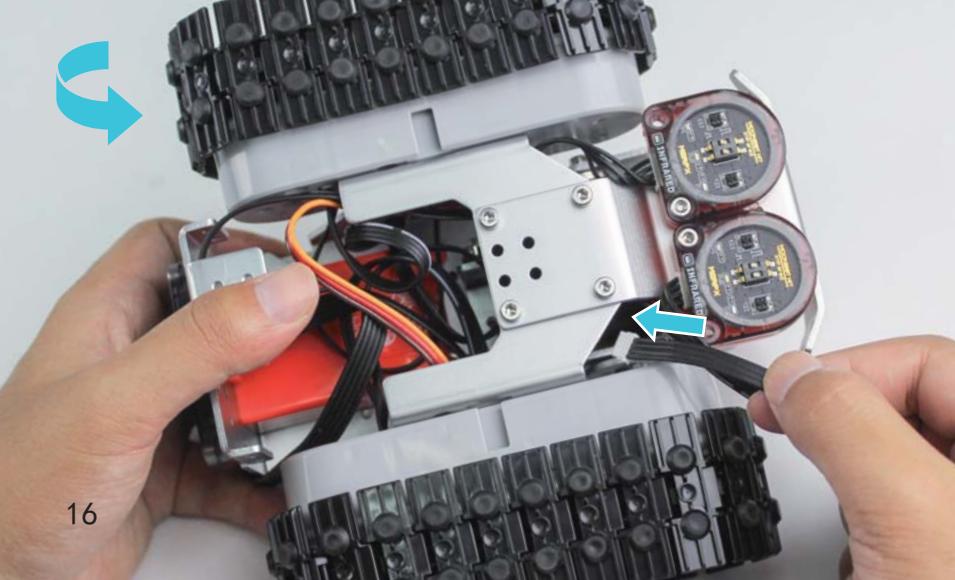
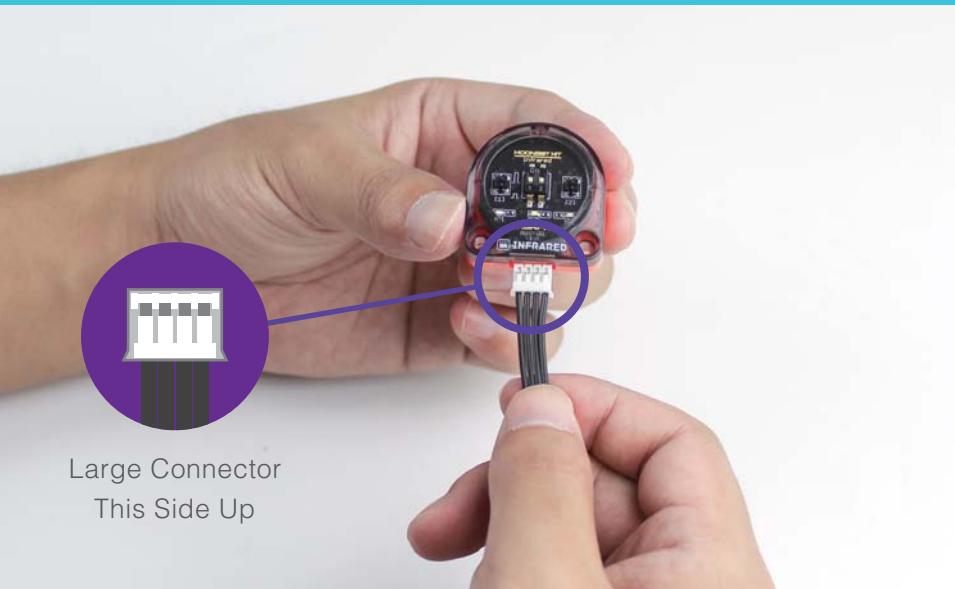
2.3



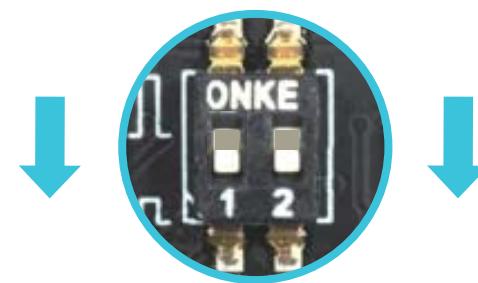
M3X8

X1

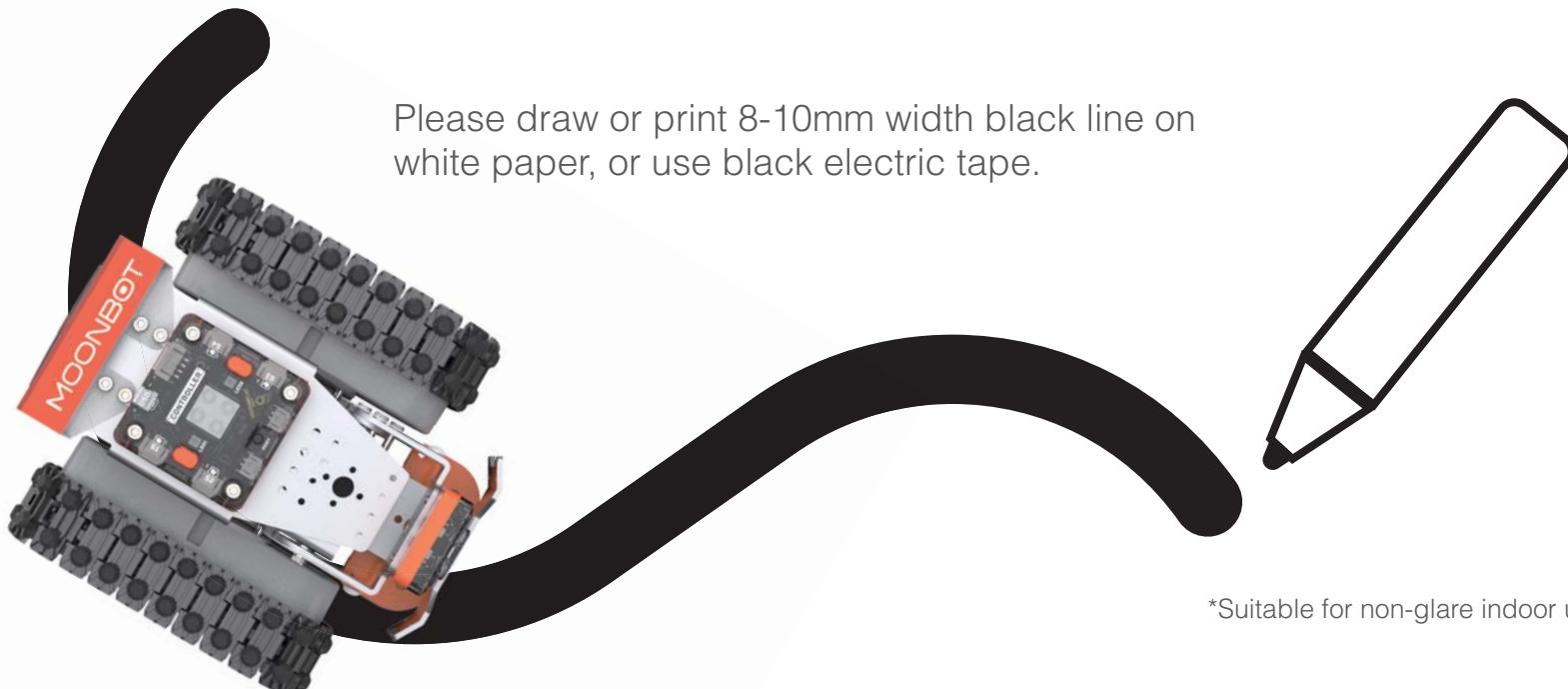
4PIN ↕ 18CM



Toggle the four small switches to the lower setting to switch the Infra-red to the short distance sensing mode.

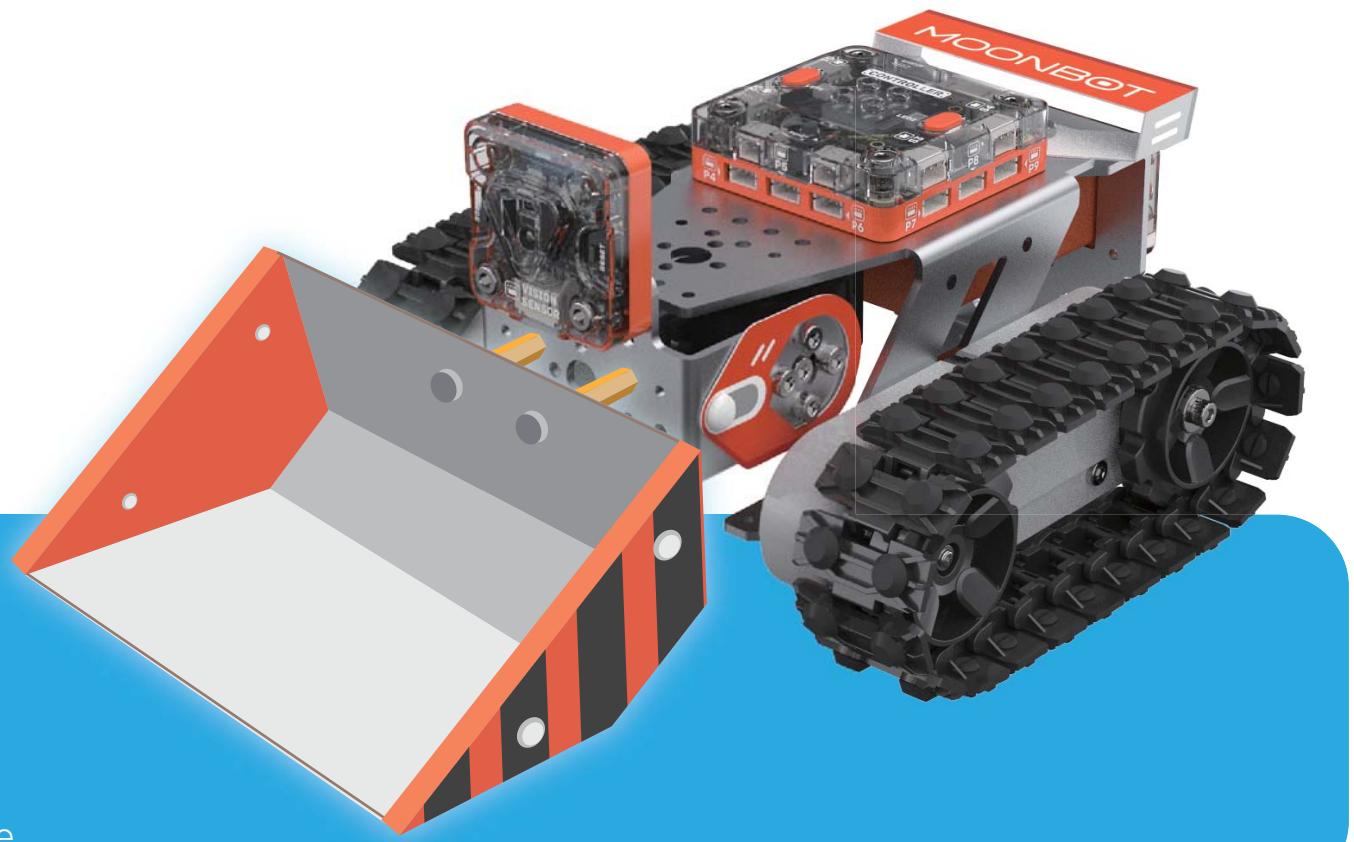


Please draw or print 8-10mm width black line on white paper, or use black electric tape.



*Suitable for non-glare indoor use

3 MoonRover Bulldozer



+12
Pcs

15min
Estimated time

3.1



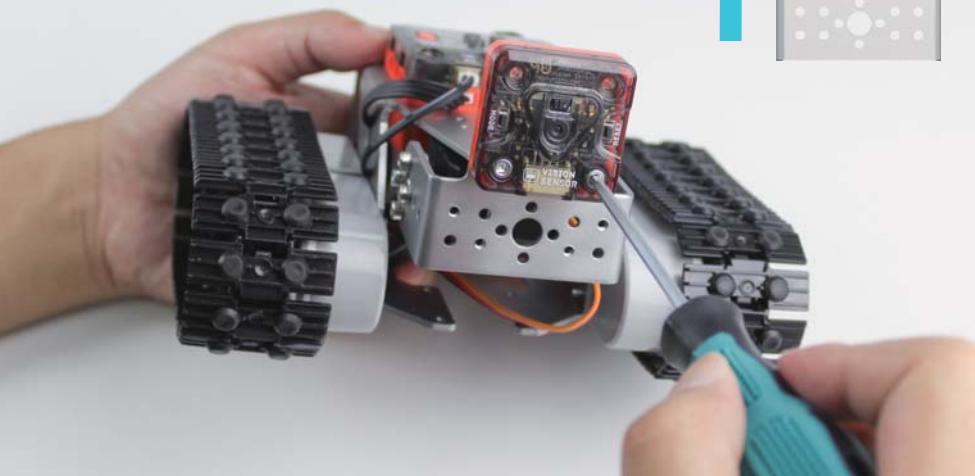
M3X12
X2



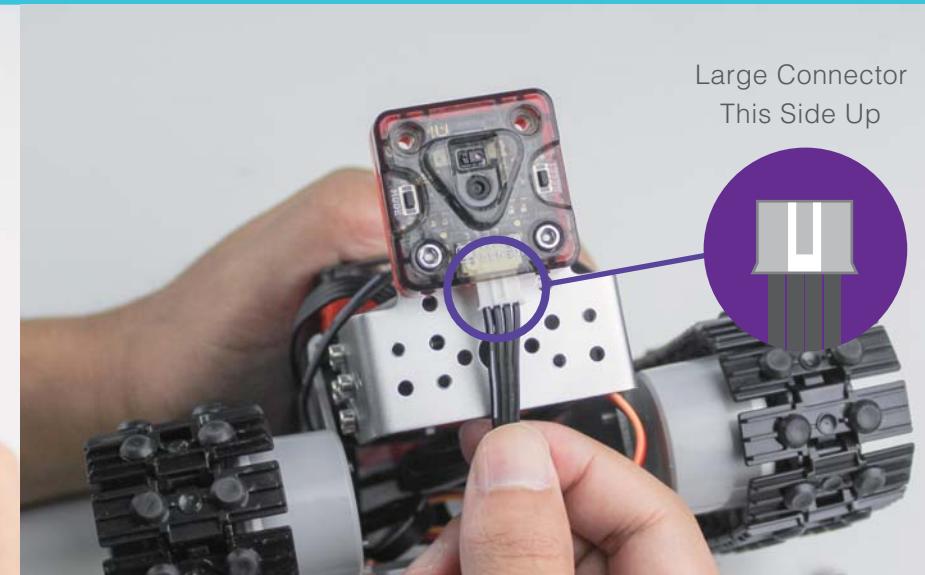
4PIN ↕ 30CM



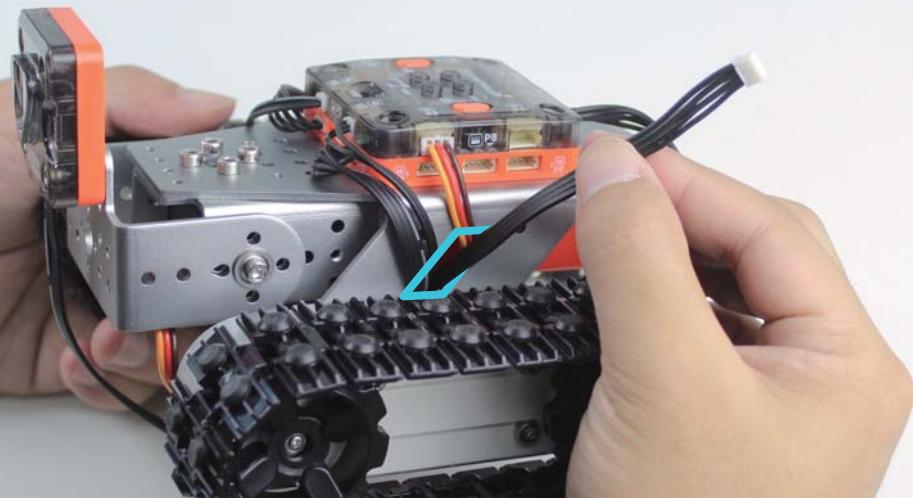
Move the vision sensor up to this location



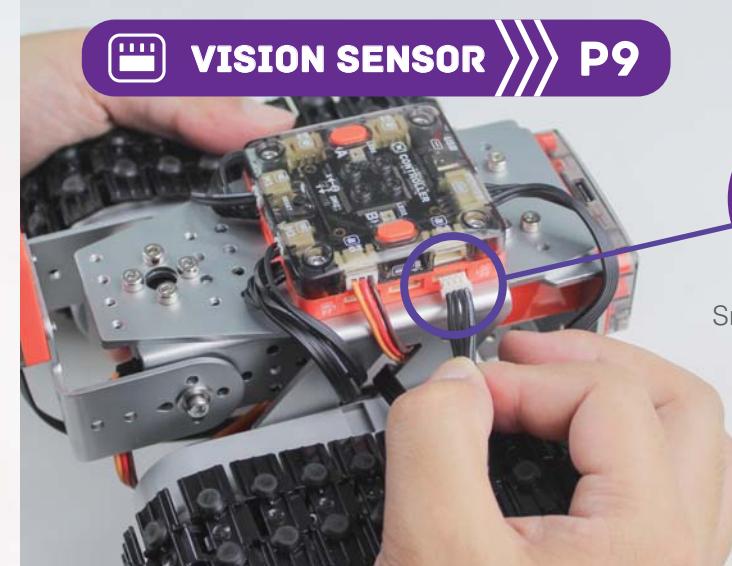
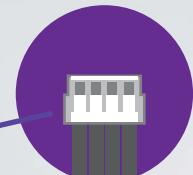
Large Connector
This Side Up



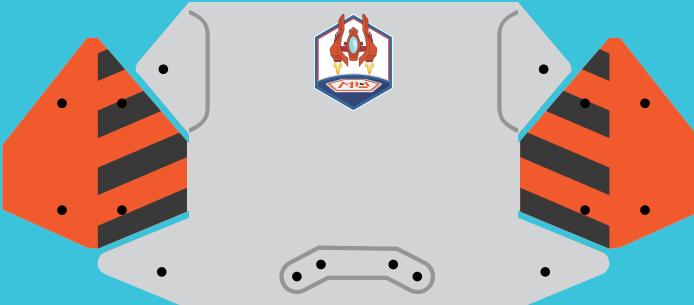
VISION SENSOR ↗ P9



Small Connector
This Side Up



3.2



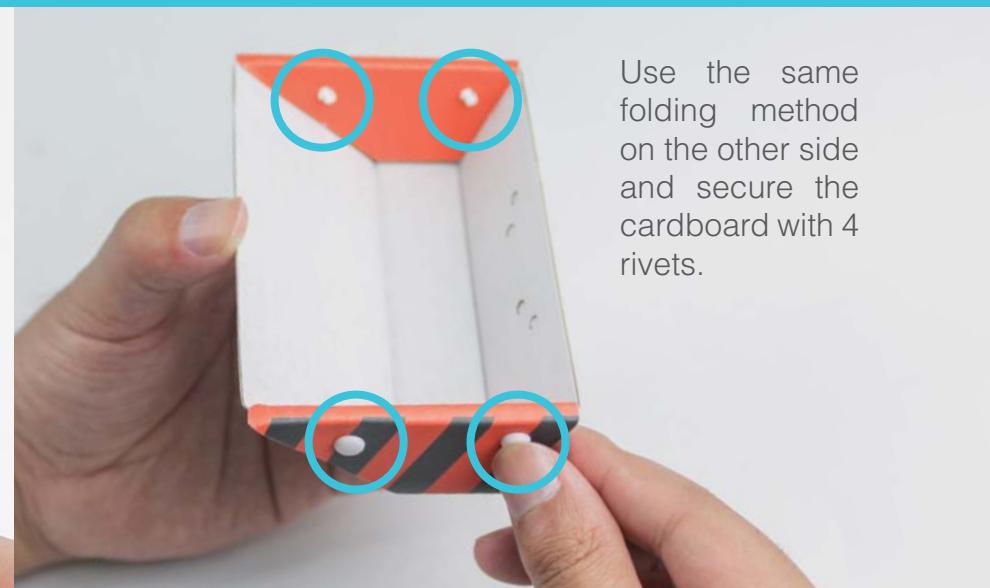
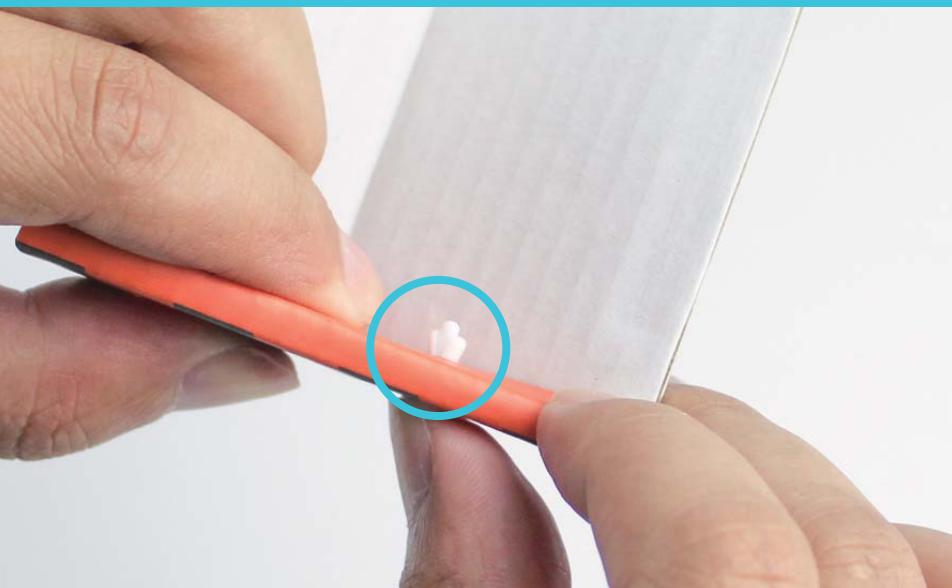
3.3



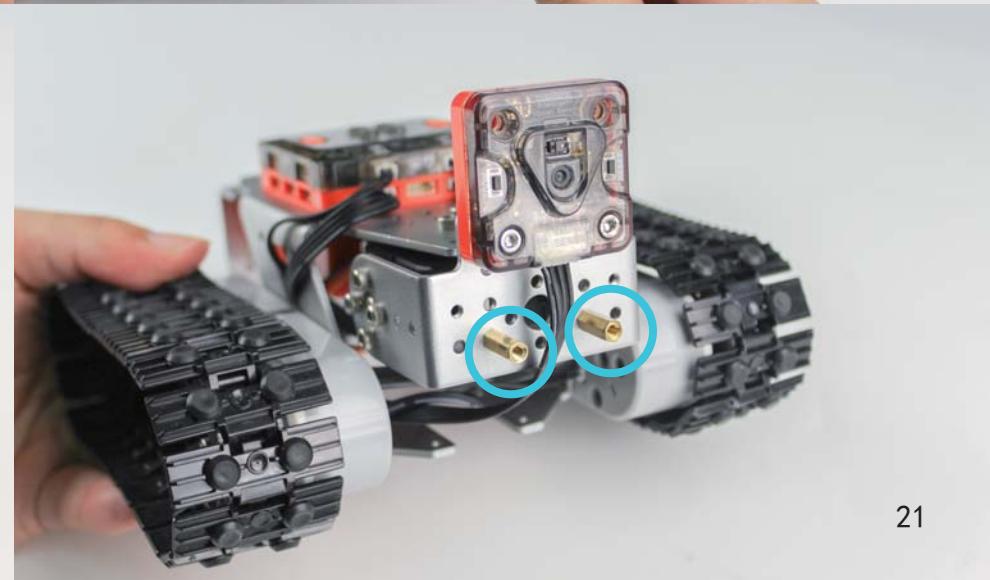
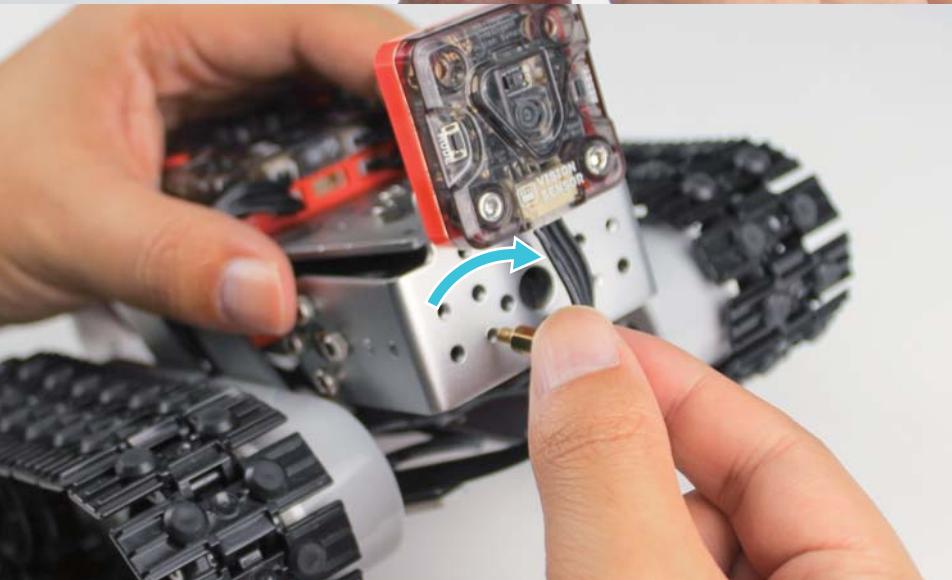
X4



X2



Use the same folding method on the other side and secure the cardboard with 4 rivets.



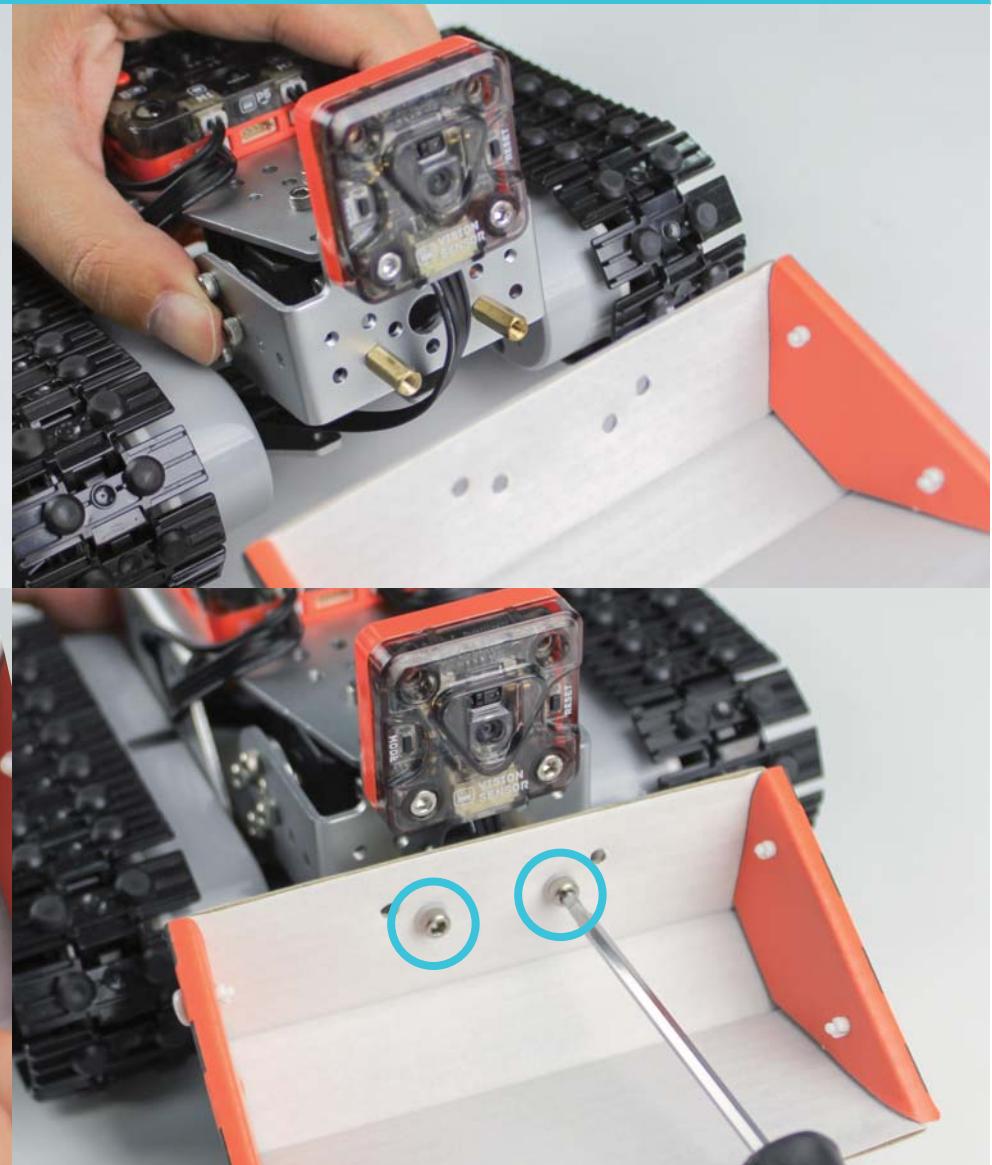
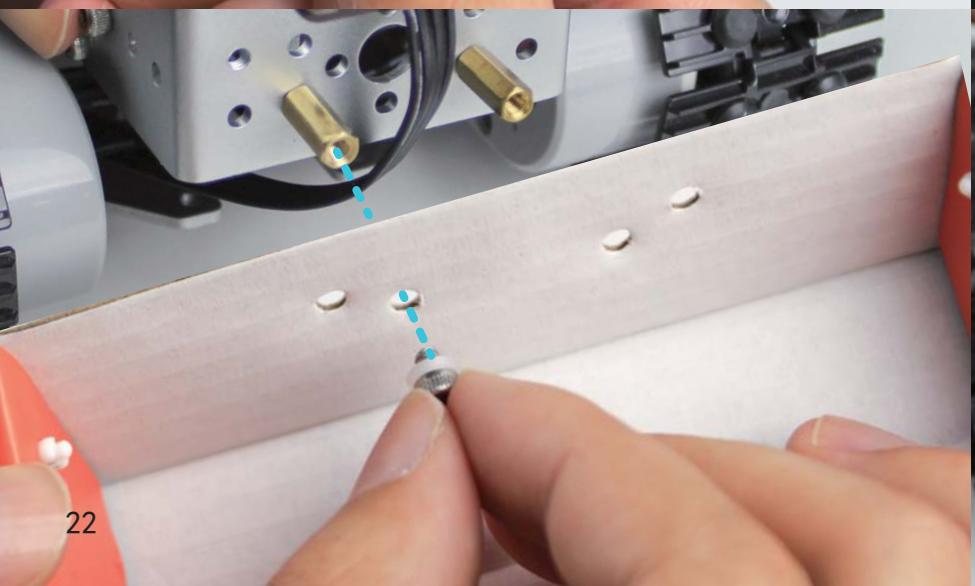
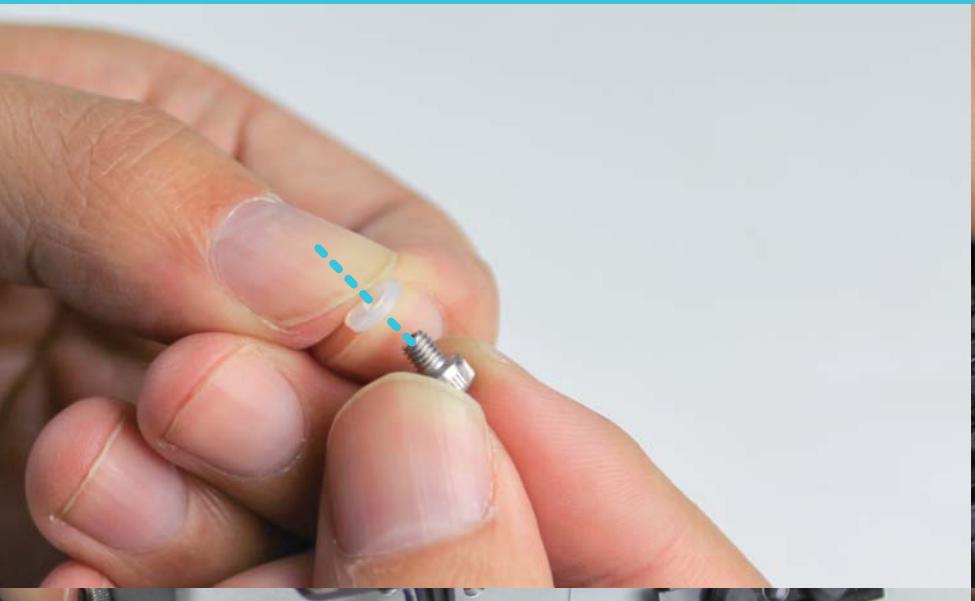
3.4



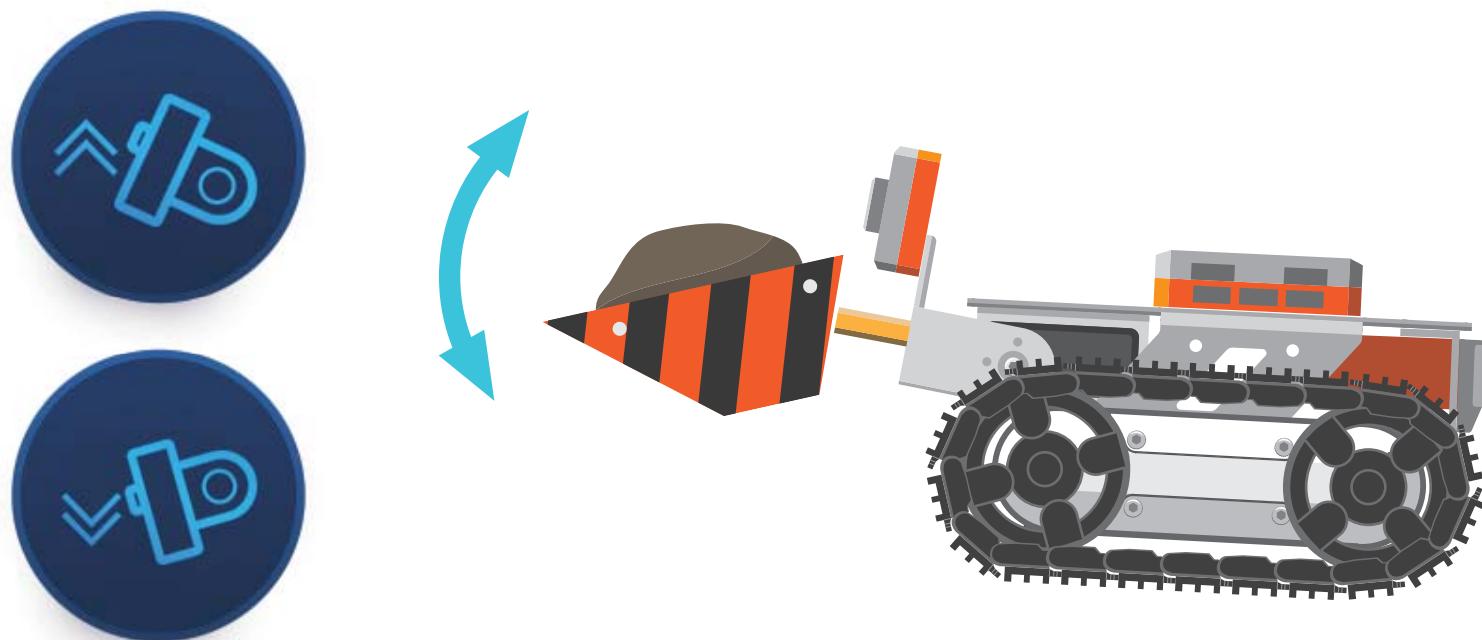
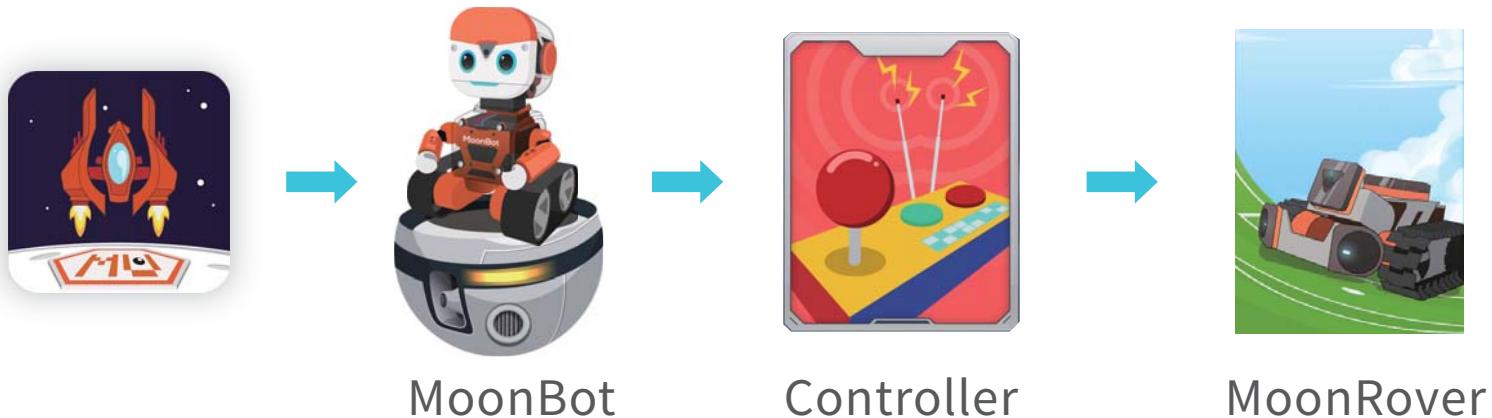
X2



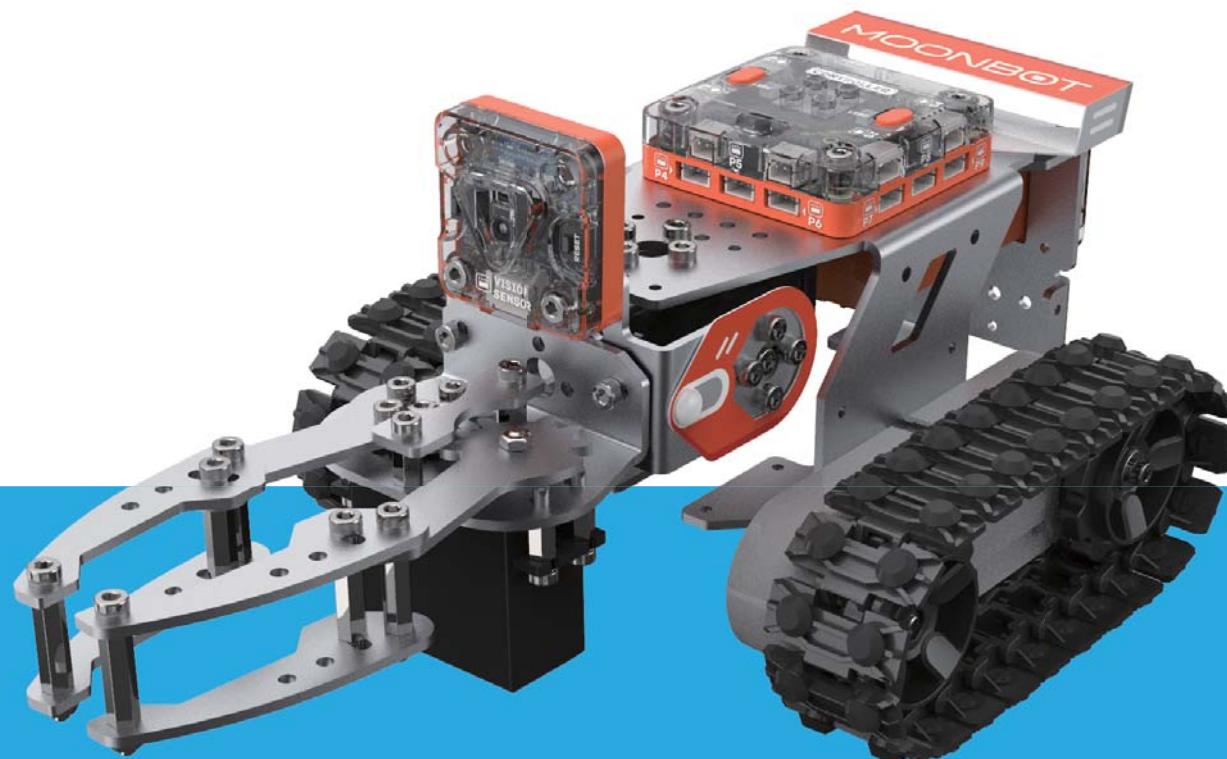
X2



Remote control via app



4 MoonRover Gripper



+12
Pcs

15min

Estimated time

4.1

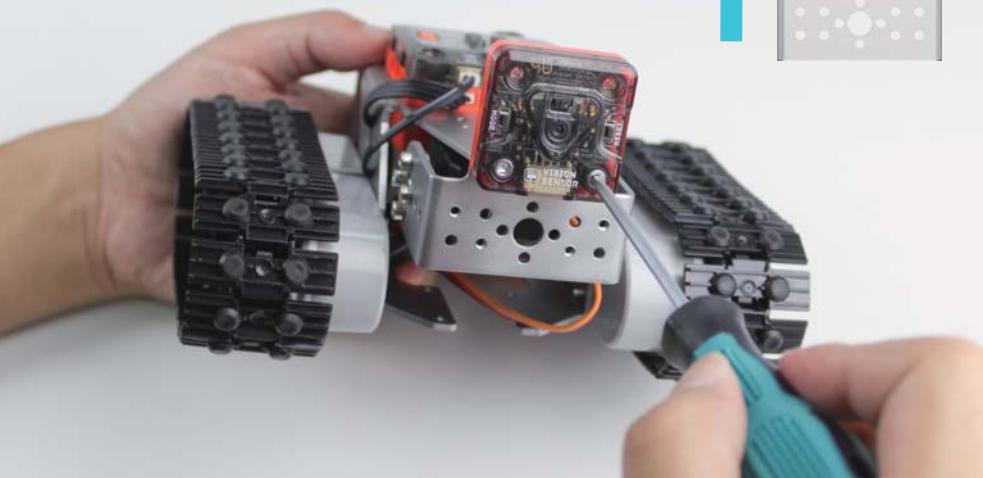


M3X12

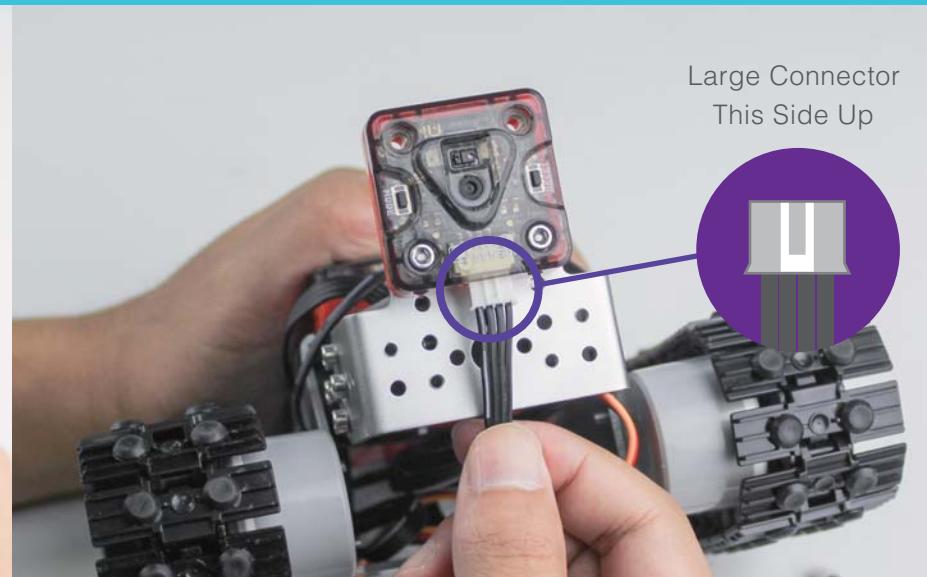
X2



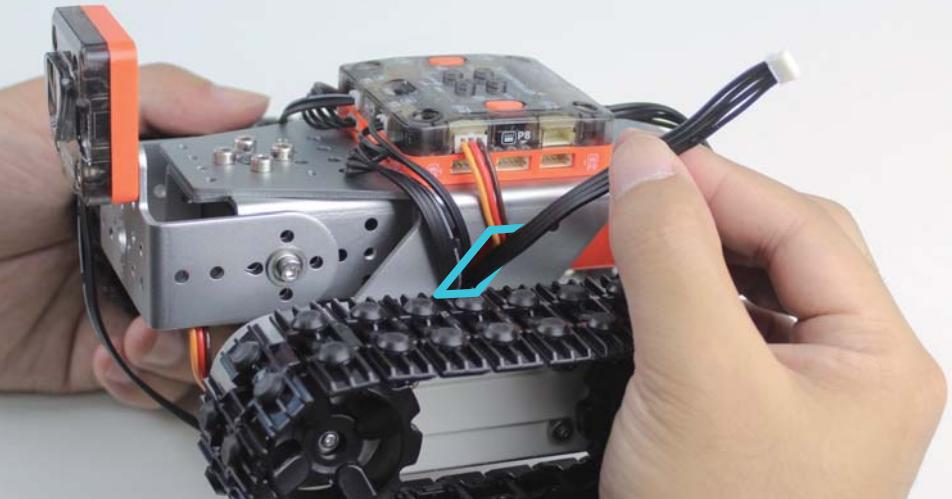
Move the vision sensor up to this location



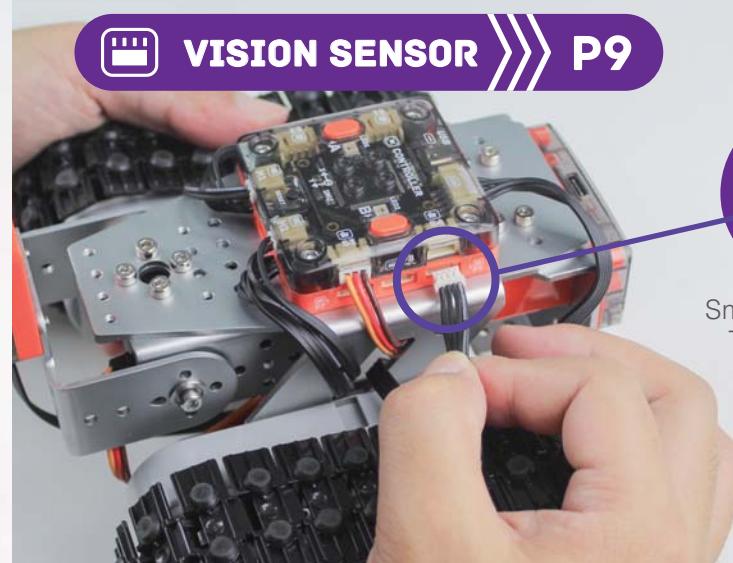
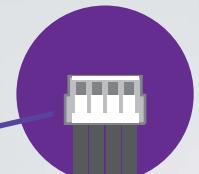
Large Connector
This Side Up



VISION SENSOR ➞ P9



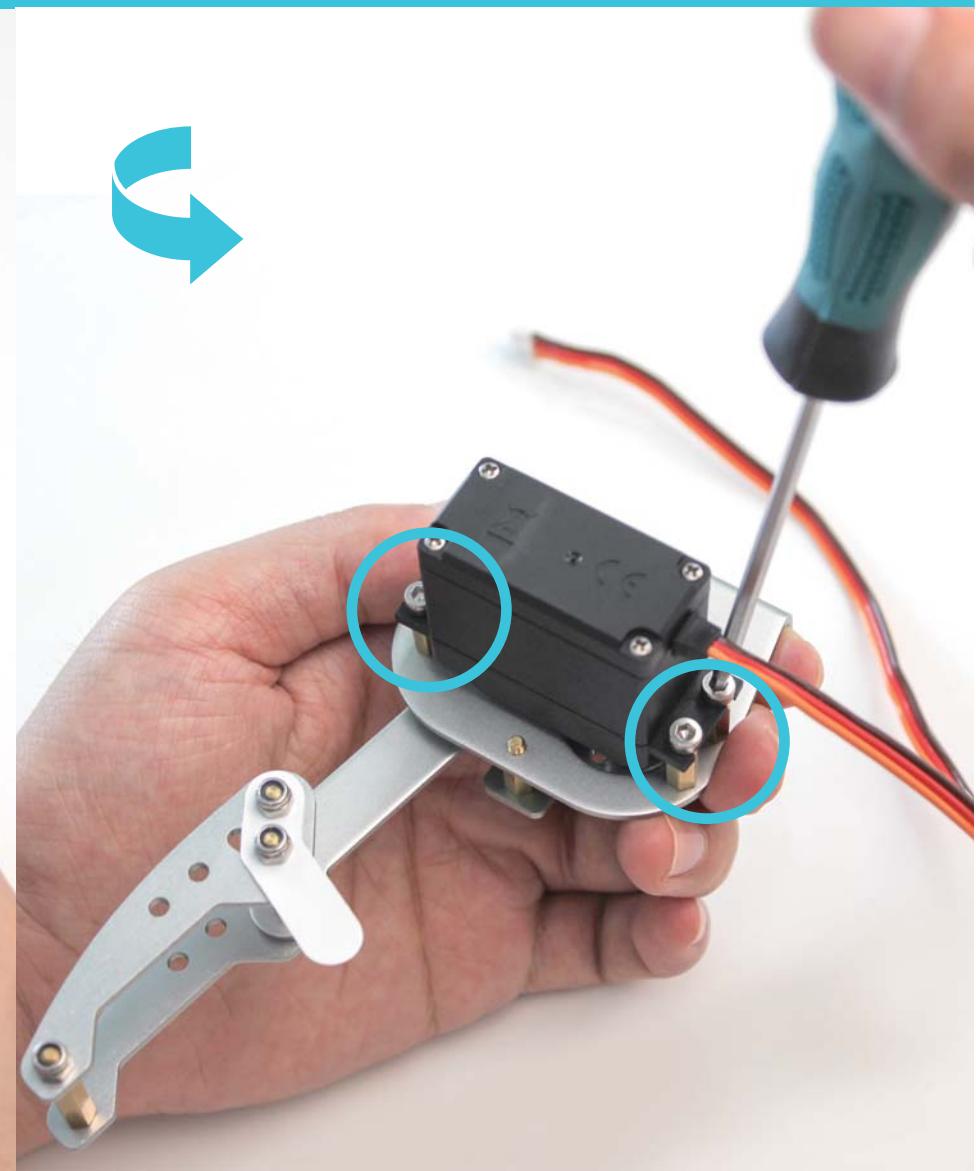
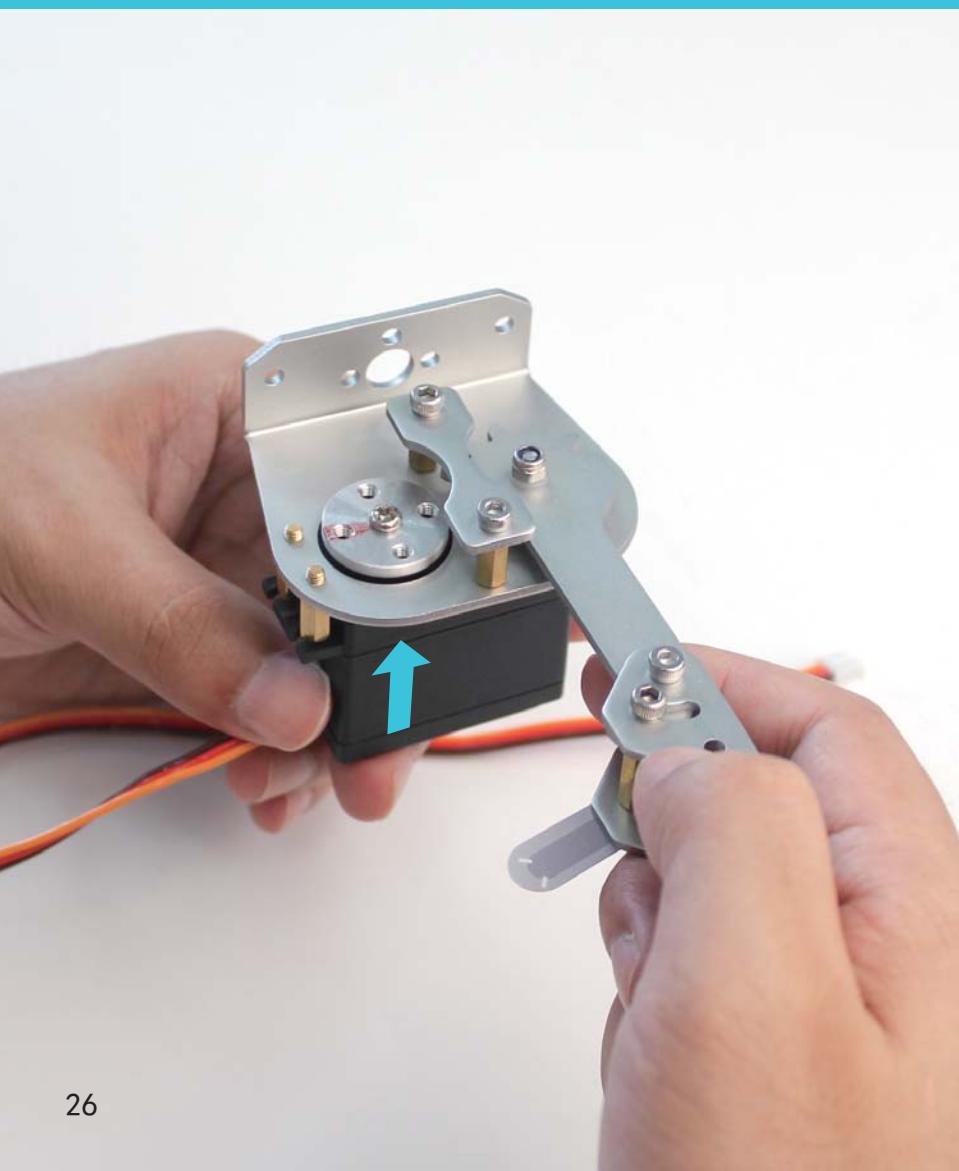
Small Connector
This Side Up



4.2



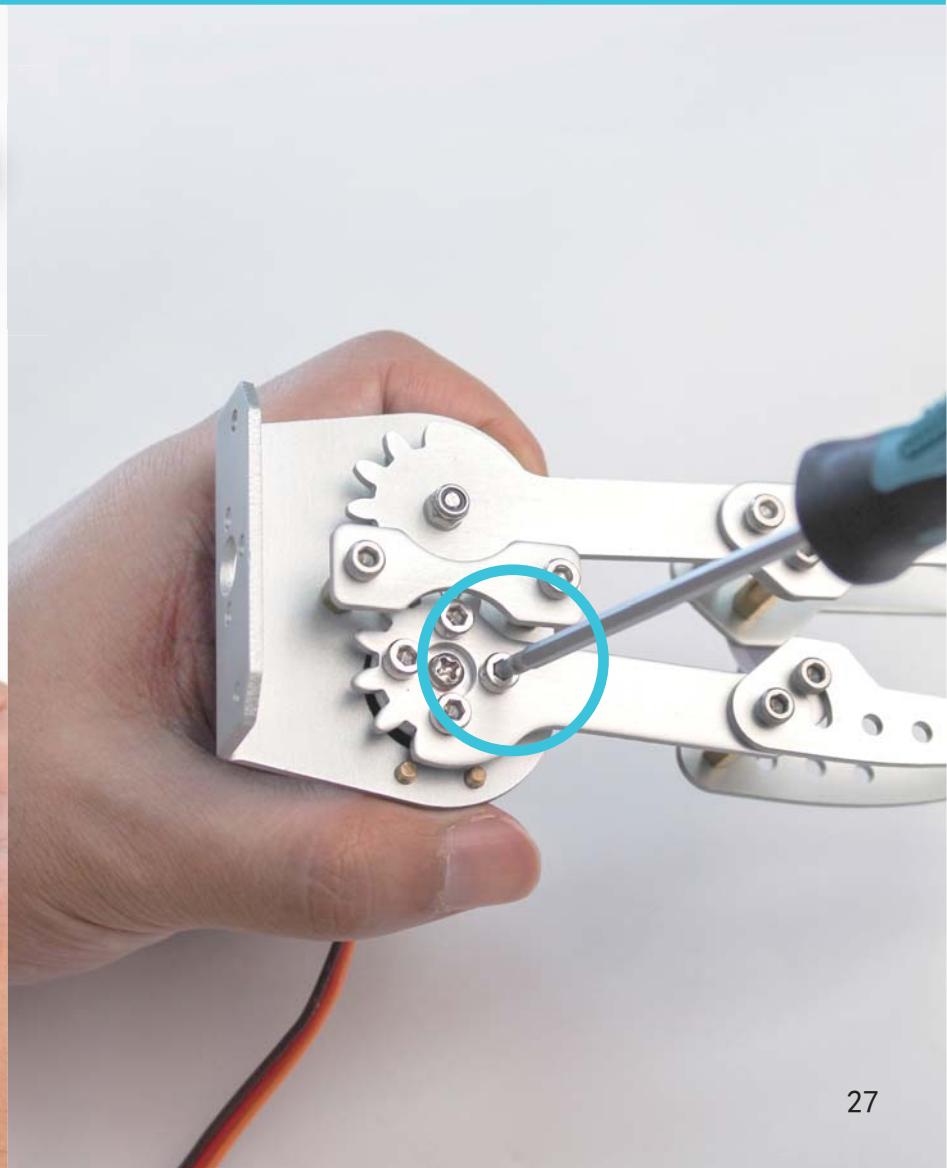
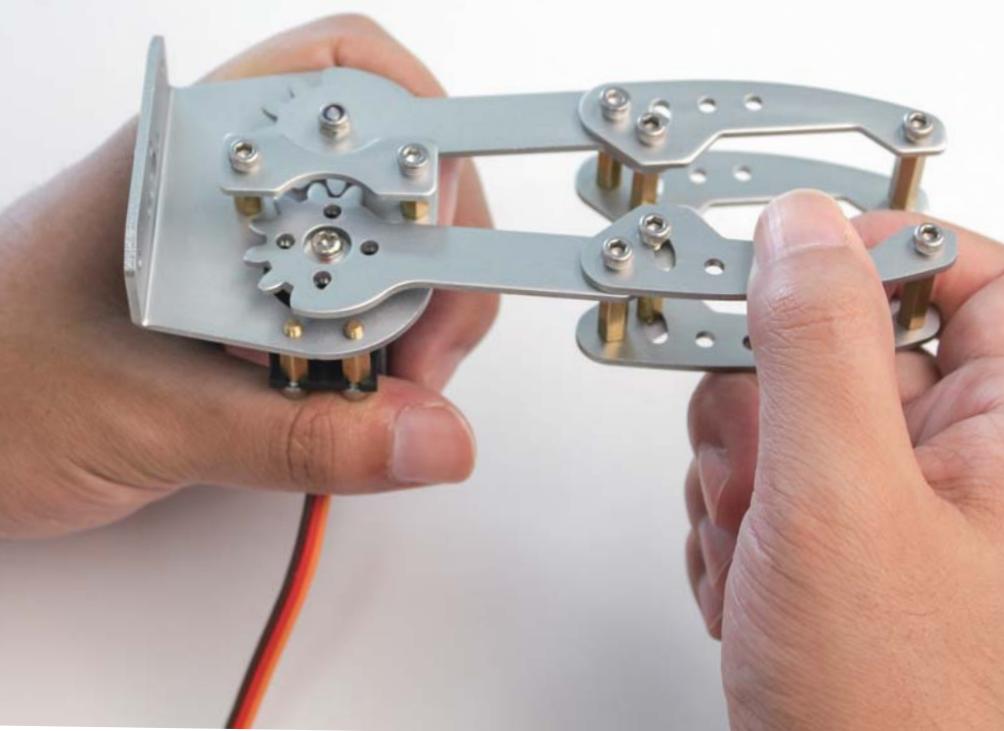
M3X4
X4



4.3



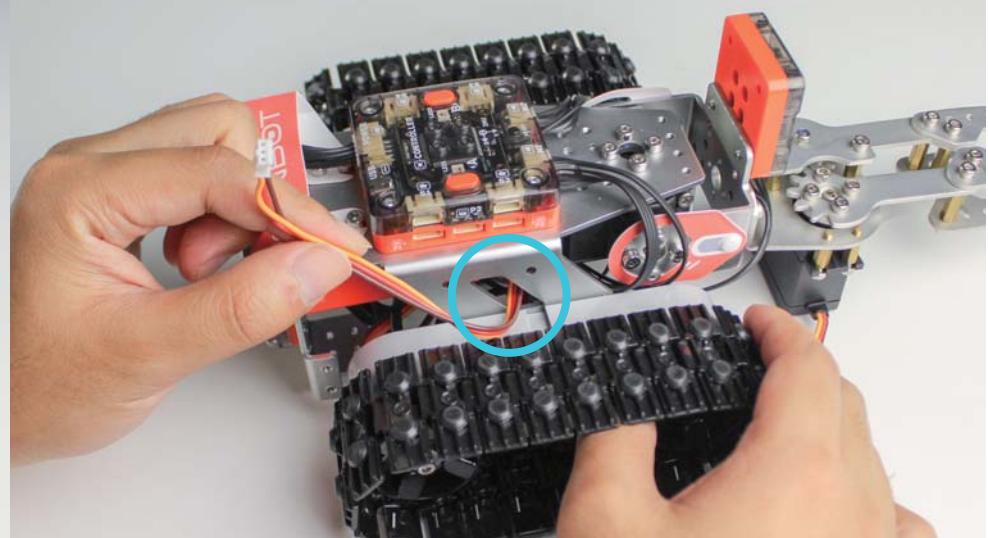
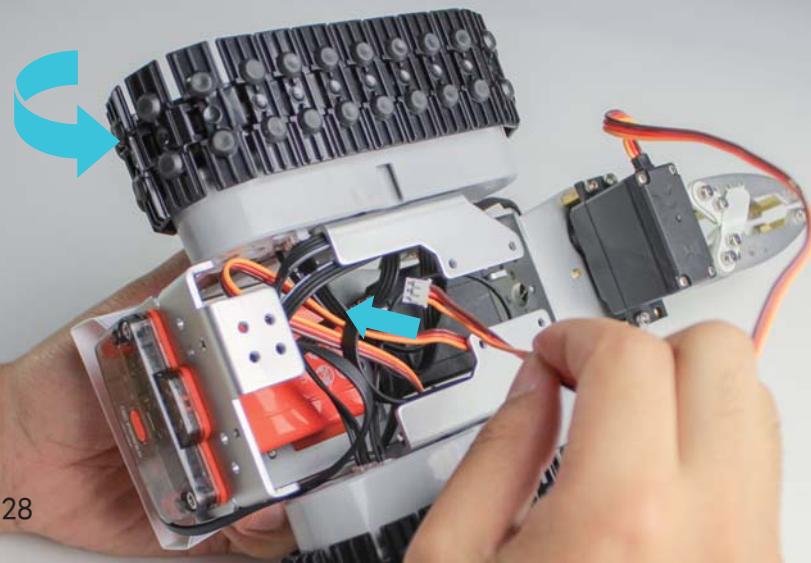
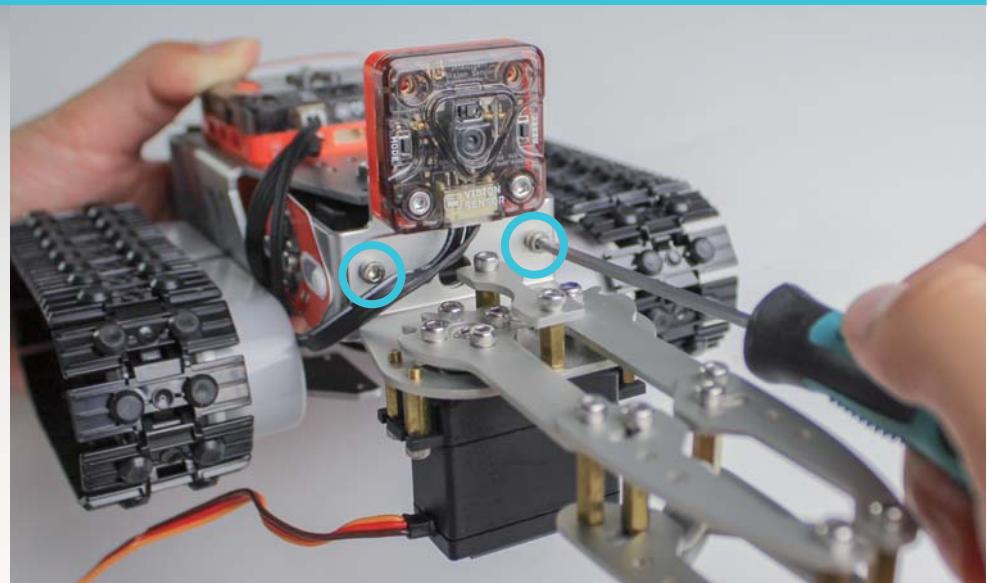
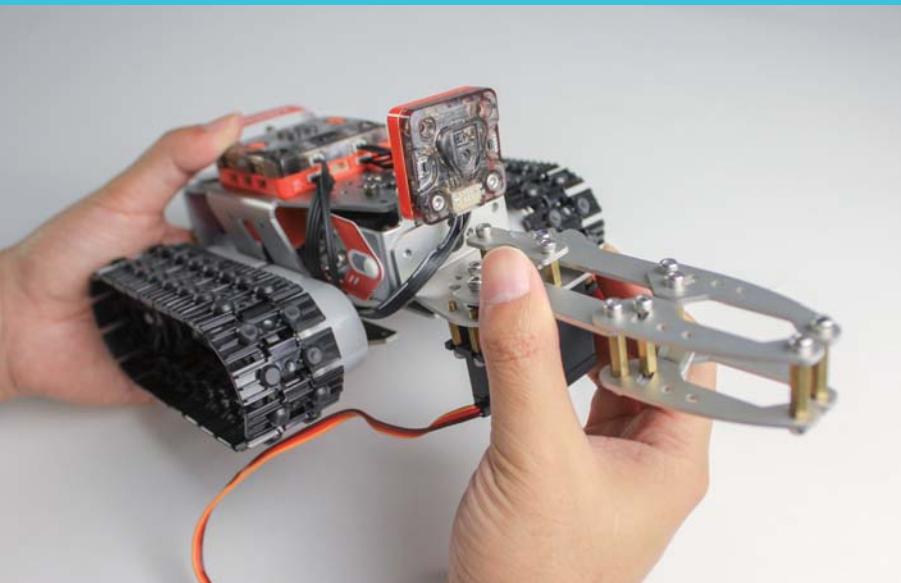
M3X4
X4



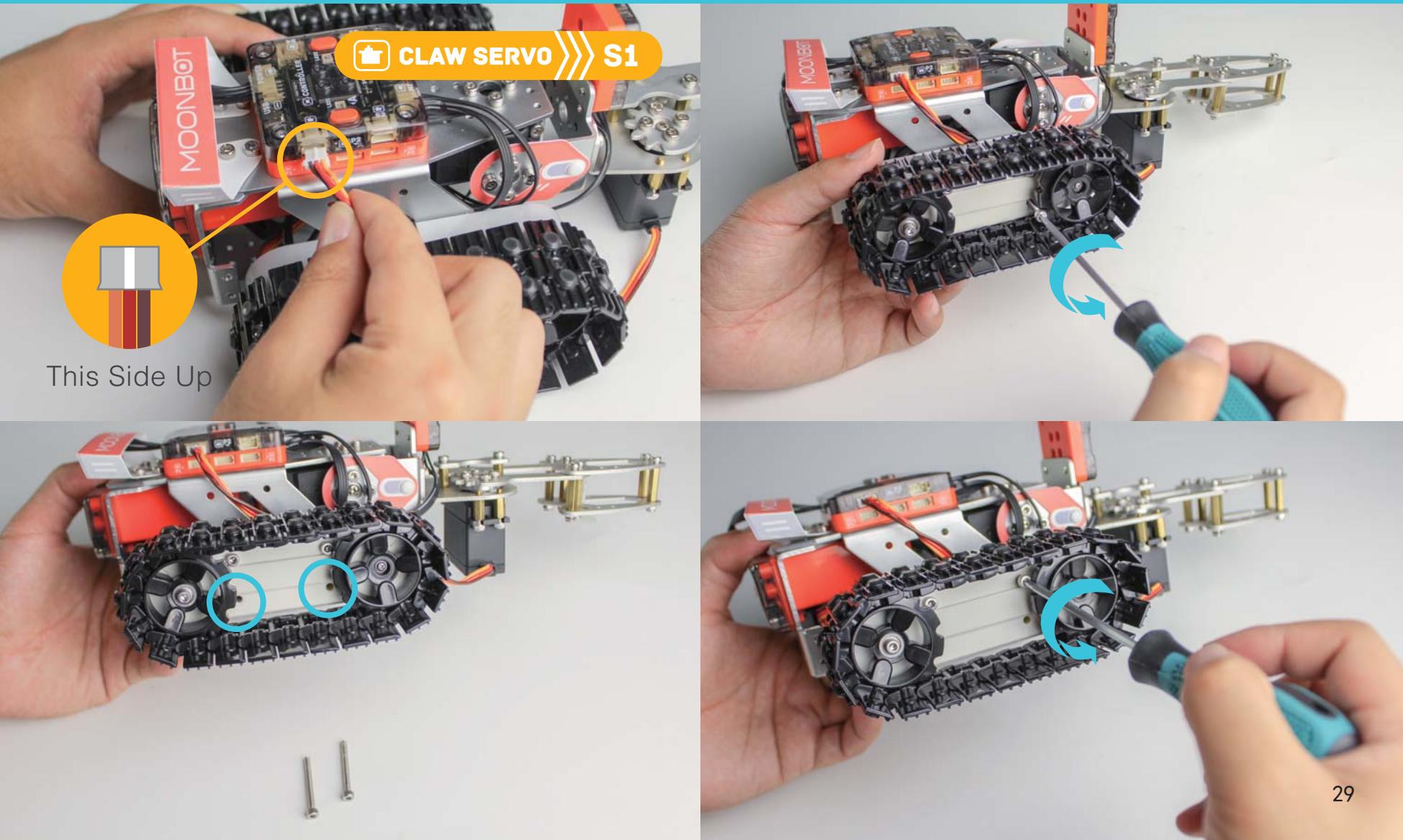
4.4



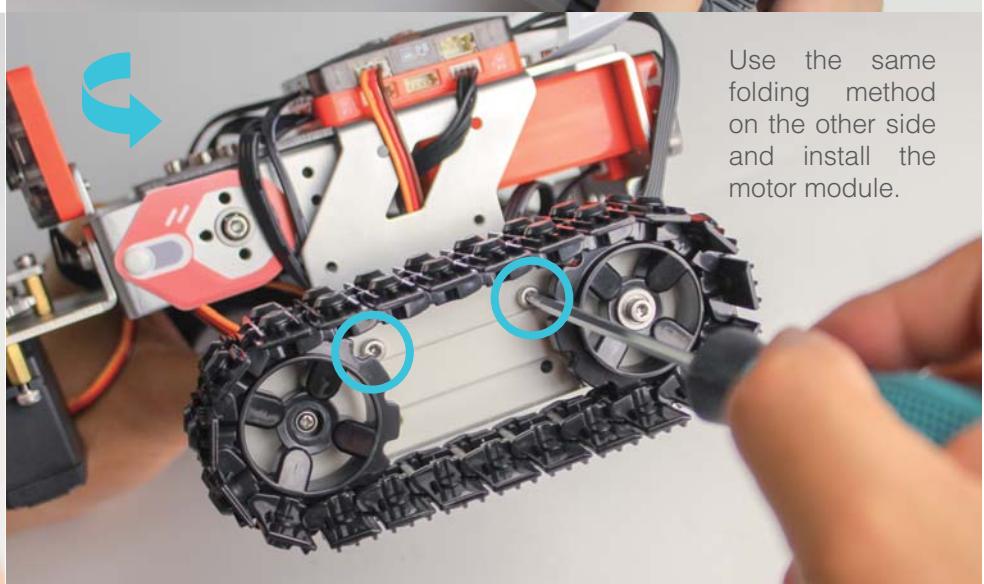
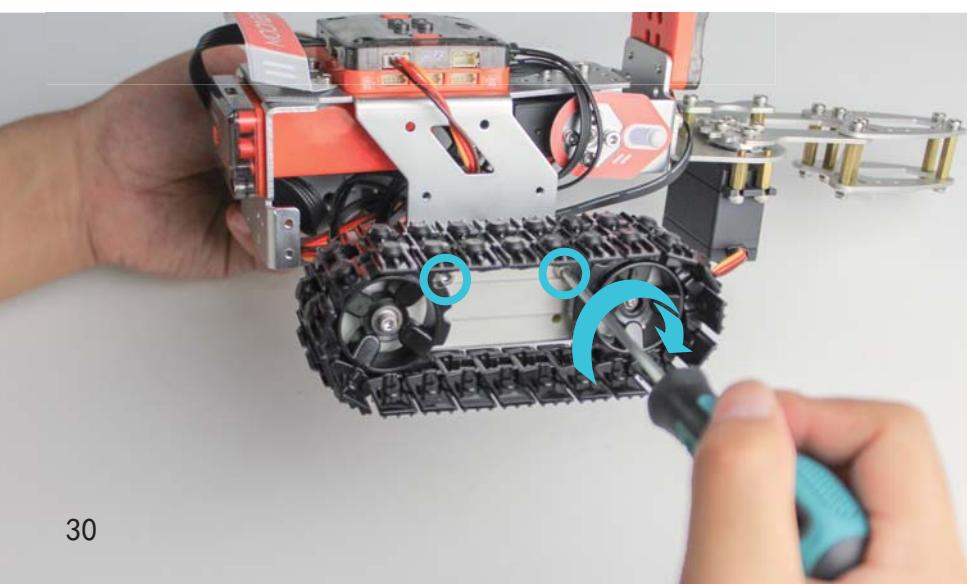
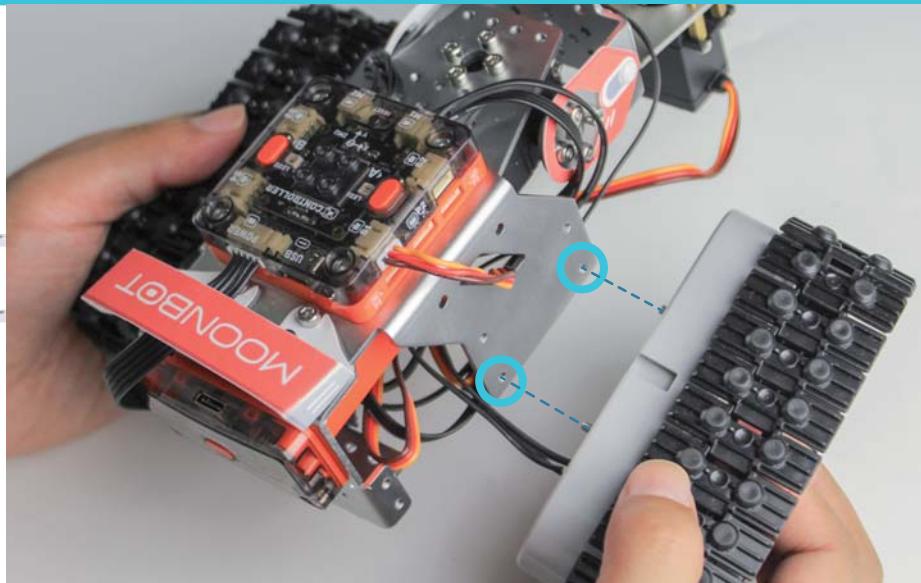
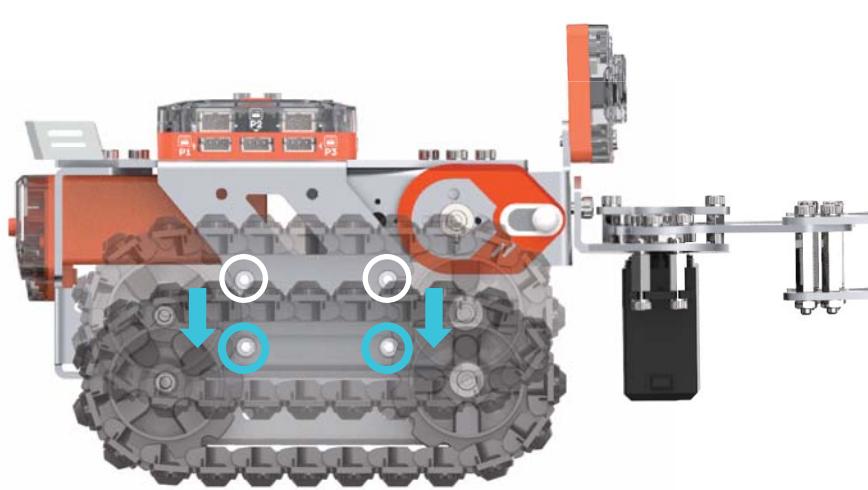
X2



4.5



4.6



Use the same folding method on the other side and install the motor module.

DISCOVER MORE

wiki.morpx.com



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