



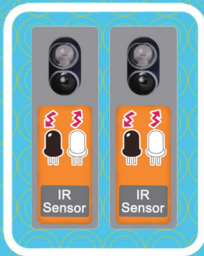
Educational Robot kit

MY ROBOT TIME SENSING

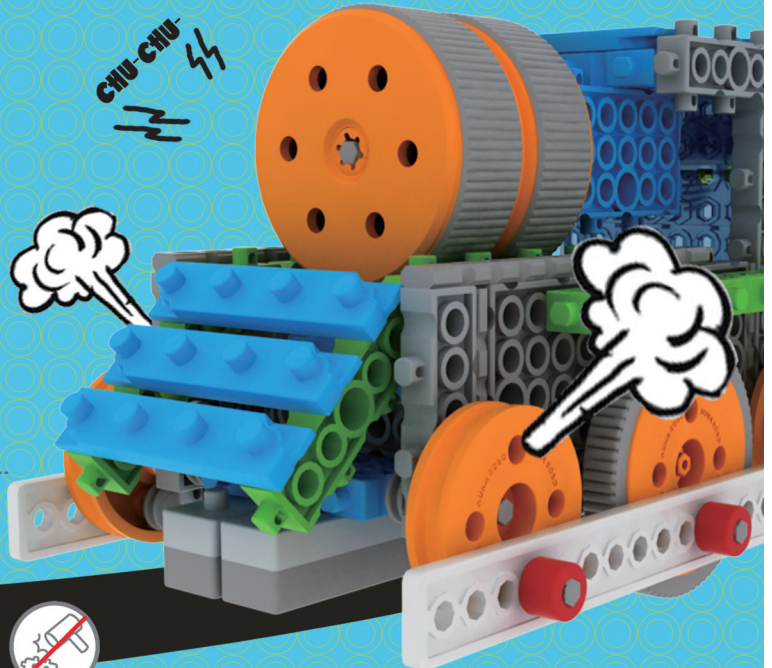
VER. 1.2

4 Robots have their own sensors and funny sounds.
Using IR (Infrared) Sensor, we can make 4 functions mode.
By Constructing the robots, you are able to gain
basic principles and knowledge of science.

It's makes learning Fun!!!



Infrared Sensors



4 robots in 1
133PCS



MY ROBOT TIME

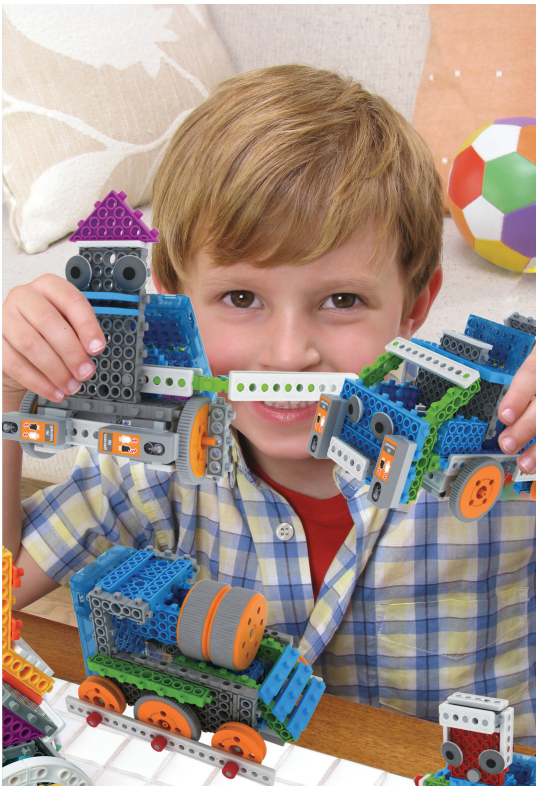
MY ROBOT TIME is developed by HUNA educational robot team.

MY ROBOT TIME is Edutainment product.

Constructing the robot is easy and fun.

Children are able to learn scientific principles besides raising their creativity and scientific thinking skills.





Content

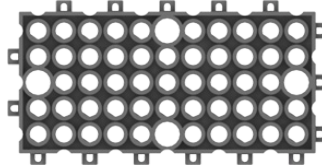
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- 4 How to use blocks (*Important*)
- 6 How to use IR sensors
- 7 Baby duck robot
- 15 CHU CHU train robot
- 26 Fire truck robot
- 36 Skier robot

List of the parts

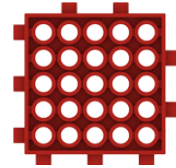
* The form and color of some parts might be slightly different if compared to the actual parts due to the continuous improvement made on the quality of our products.



(8 pcs)



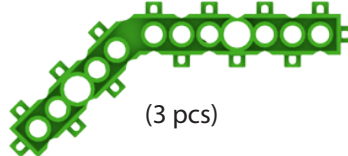
(3 pcs)



(1 pcs)



(4 pcs)



(3 pcs)



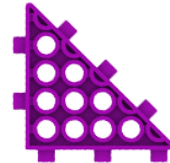
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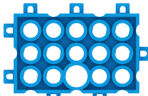
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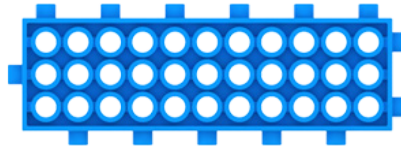
(3 pcs)



(3 pcs)



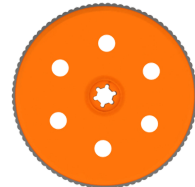
(6 pcs)



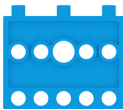
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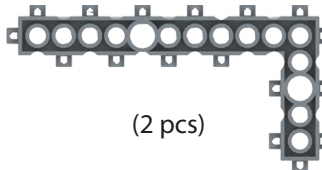
(8 pcs)



(2 pcs)



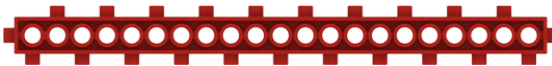
(4 pcs)



(2 pcs)



(6 pcs)



(2 pcs)



(5 pcs)



(4 pcs)



(7 pcs)

3cm
(2 pcs)

(2 pcs)

(10 pcs)

(2 pcs)

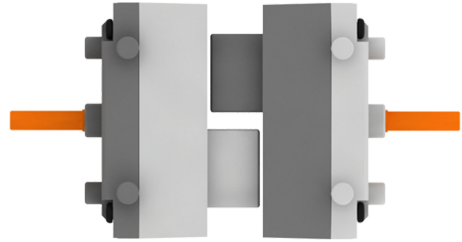
4.5cm
(2 pcs)

(4 pcs)

(12 pcs)

(1 pcs)

(4 pcs)



(2 pcs)



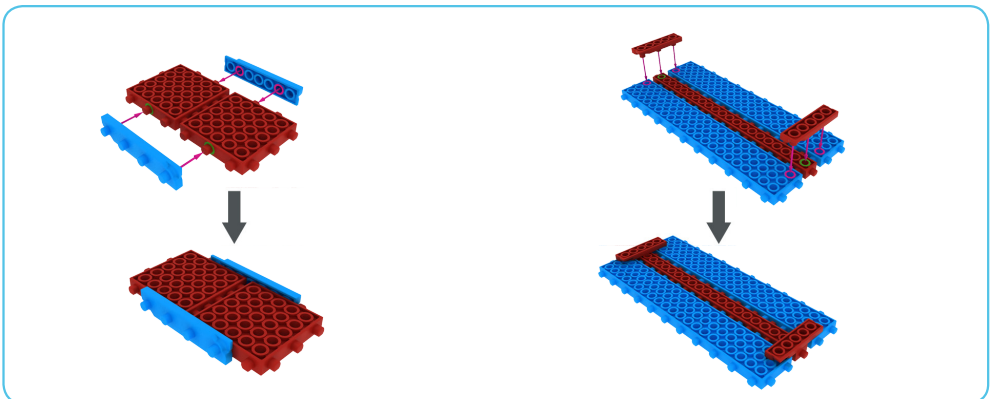
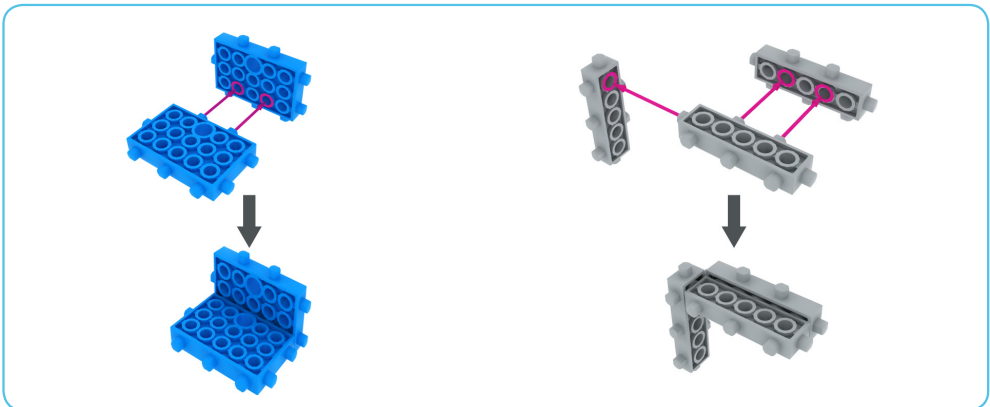
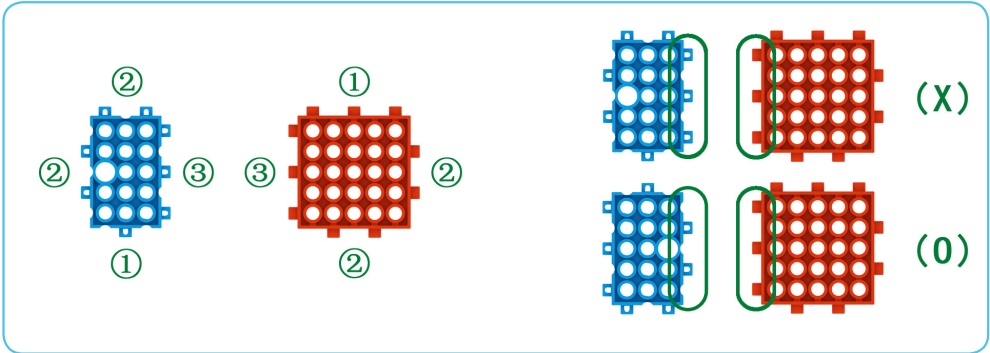
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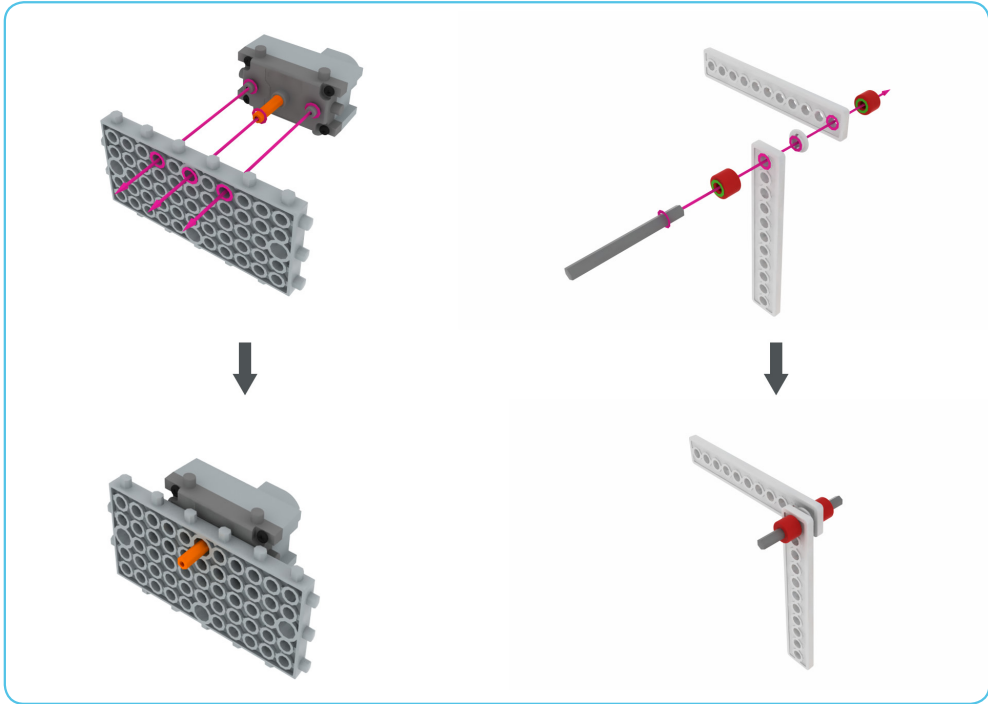
(1 pcs)

Caution!!

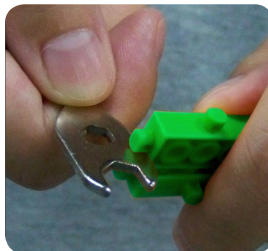


How to use blocks (Important) 





Use a spanner to disassemble the blocks



※ When removing the blocks, the edge of blocks might hurt your children. Parents are advised to help children when necessary.

How to use IR (Infrared) sensor

IR Sensor



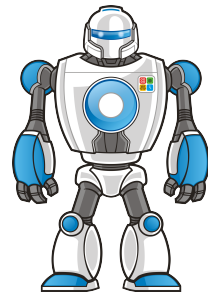
“Send” light

An infrared signal is sent to the object.

If there is a reflection, the information is sent to the receive' light part.

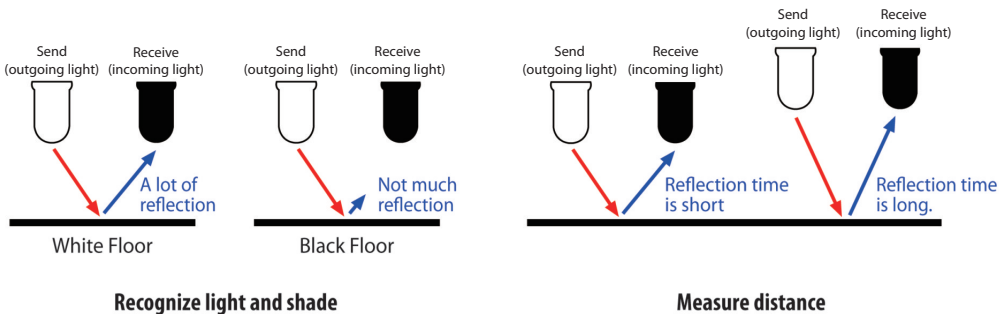
“Receive” light

This receives the signal from the above part and converts that signal into the input signal.



IR Sensor?

- An IR sensor has a send and receive part. The time taken to receive the signal can be converted into a distance for the robot to measure. An IR Sensor can also detect between light and dark surfaces.



Baby duck robot

Sound :

Baby Duck robot makes a comic sound like real duck " QUACK , QUACK"

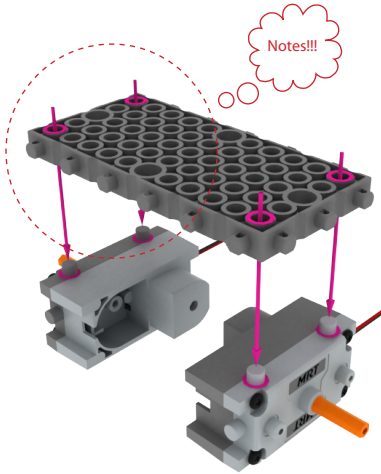
Function :

When duck robot senses something, such as white paper or your hand, it can follow it with sound.

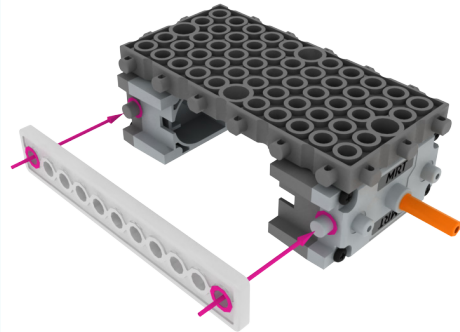




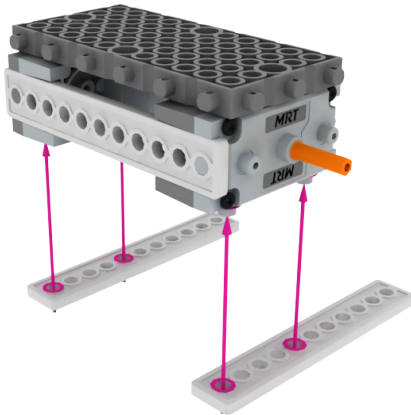
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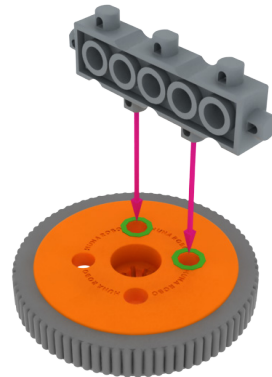
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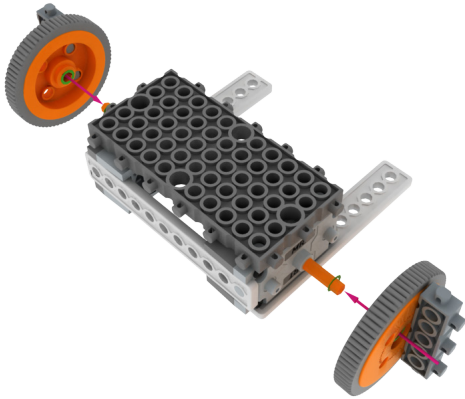
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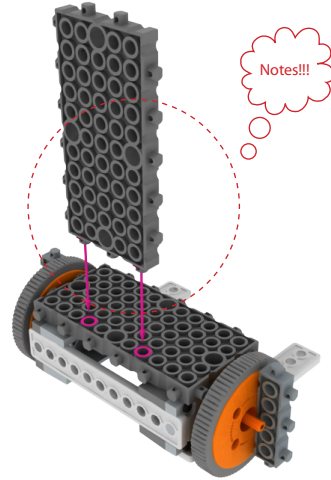
X2



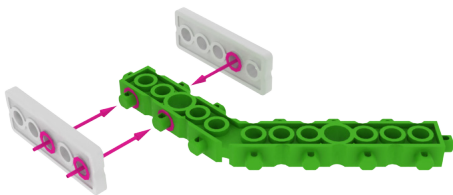
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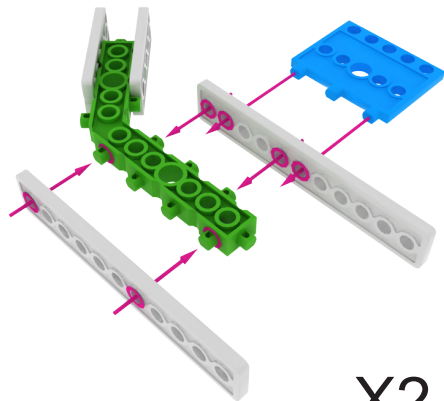
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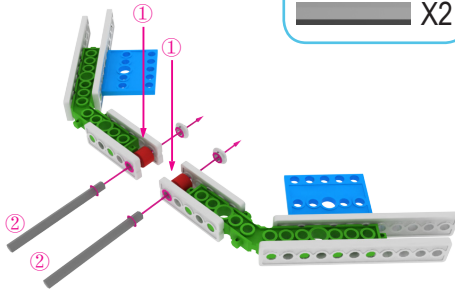





8





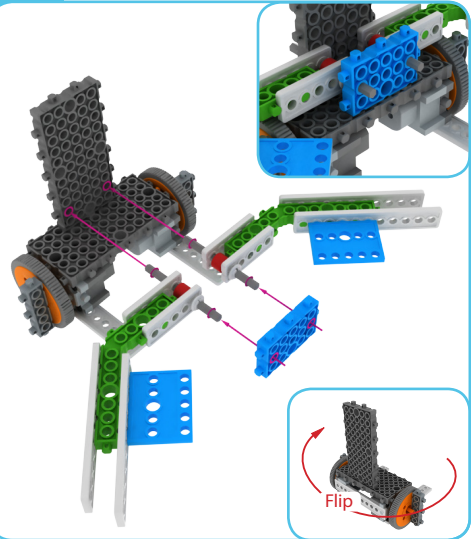
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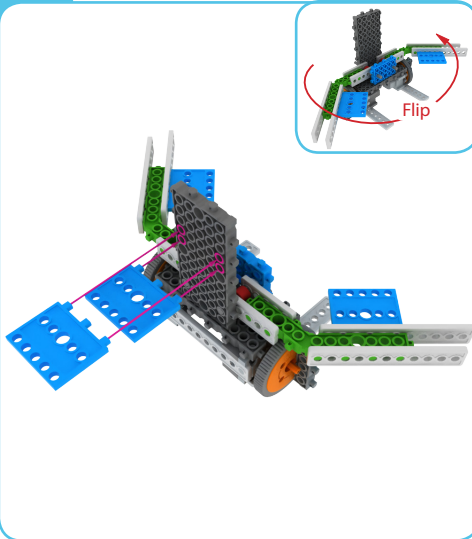
-  X2
-  X2
-  X2

X2  1:1

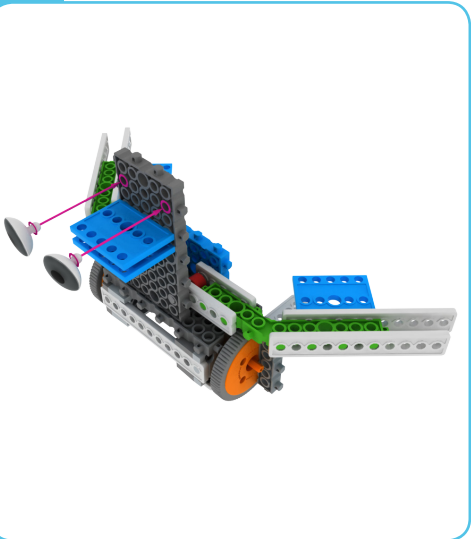
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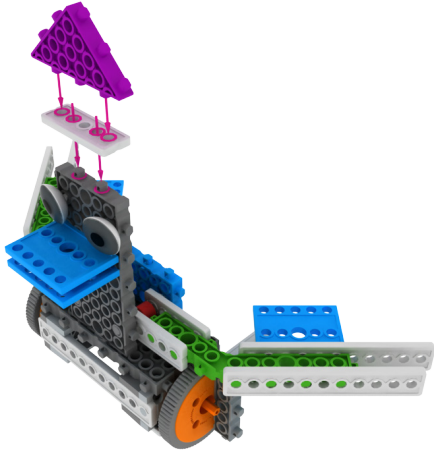


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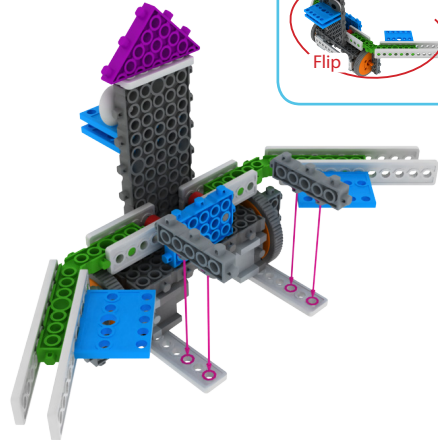




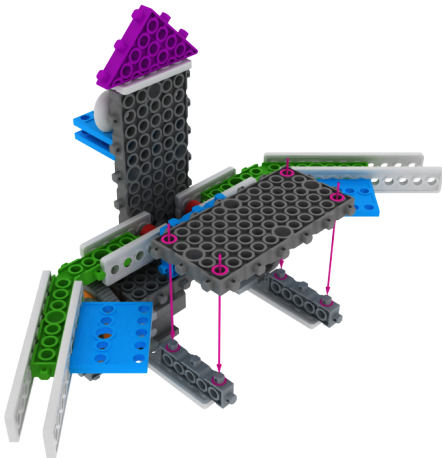
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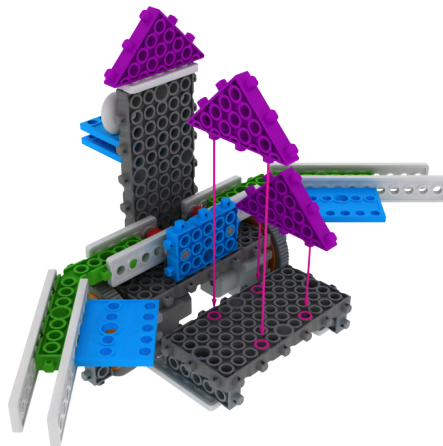
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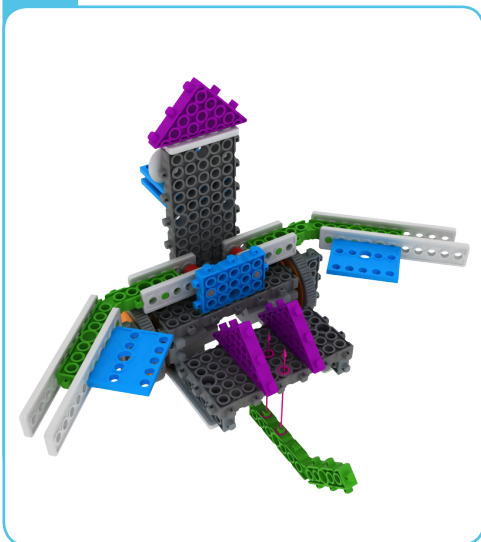


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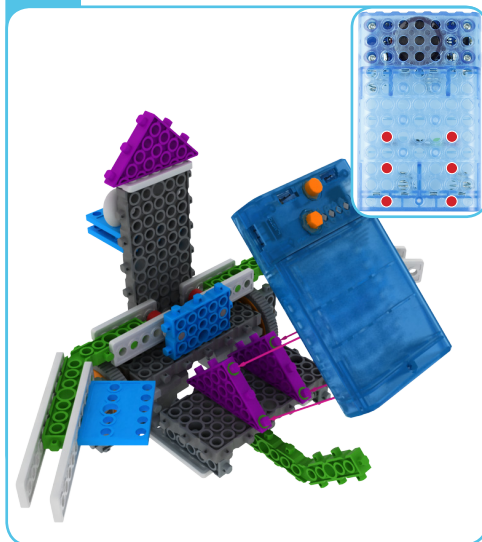




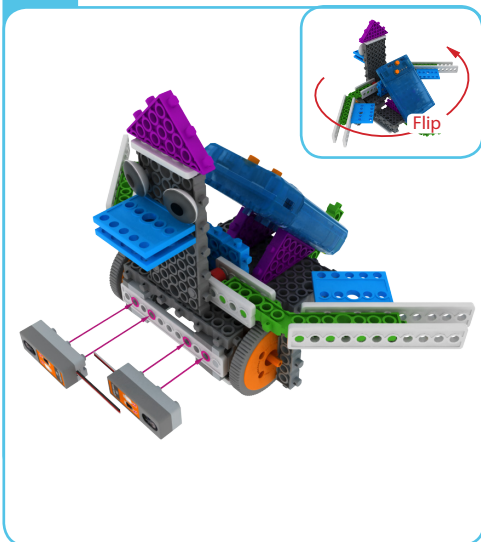
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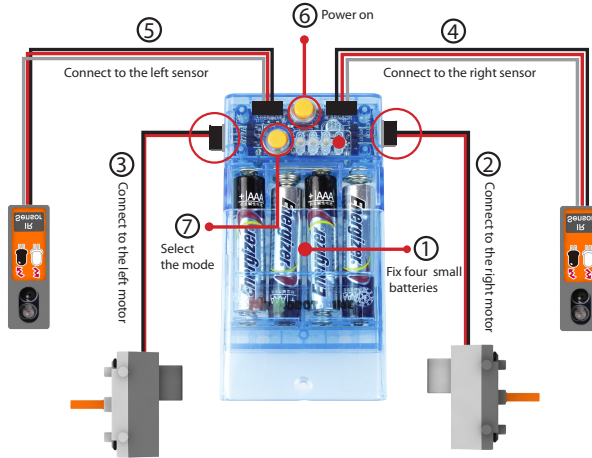
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End

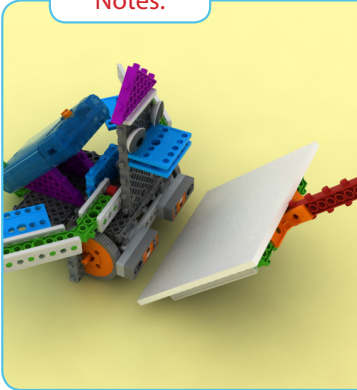


How to activate your robot?



Press the mode button to select the 4th LED for Duck robot.

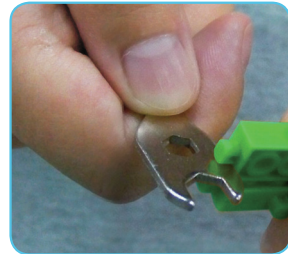
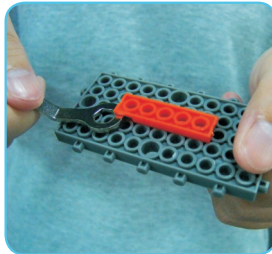
Notes:



1. Baby Duck robot can follow when white paper or your hand put on sensors.
2. If your robot does not move, please read the manual carefully.
3. Then, try the process again step by step.

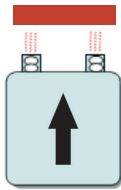


Use a spanner to disassemble the blocks.



※ When removing the blocks, the edge of blocks might hurt your children. Parents are advised to help children when necessary.

IR sensors in our life



When two IR sensors sense object.
— Go forward



When left IR sensor senses object.
— Turn left



When right IR sensor sense object.
— Turn right



IR Sensing Road light



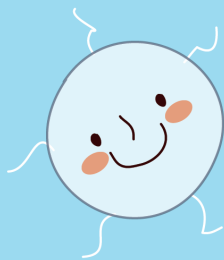
IR Sensing Indoor light



IR Sensing water supply



IR Sensing Auto door



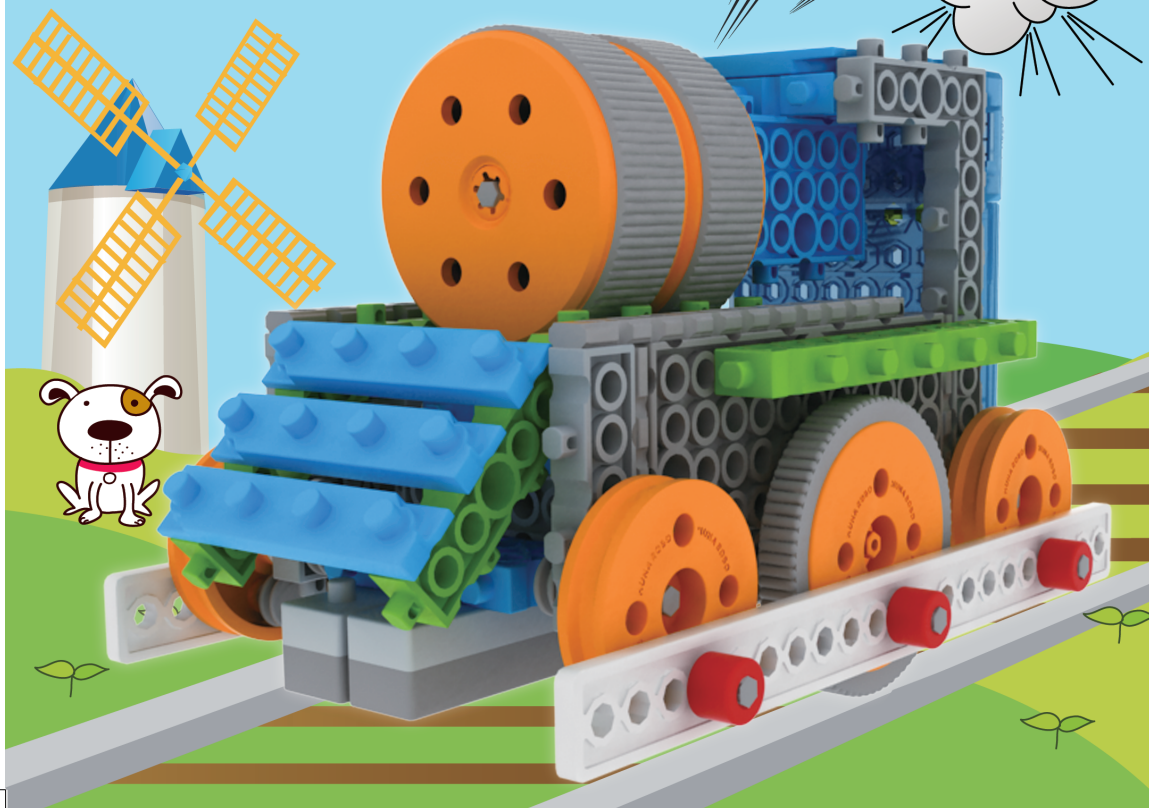
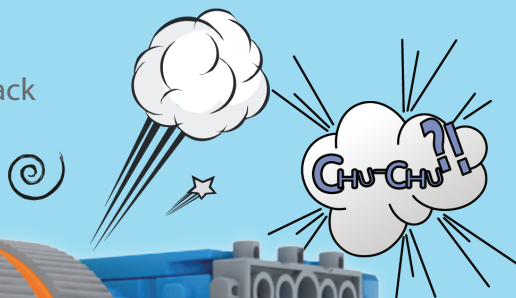
CHU! CHU! train robot

Sound :

The train robot makes a real train sound like "CHU-CHU".

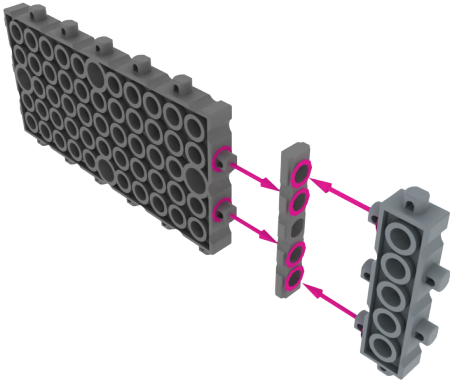
Function :

The train can follow and run on the black line.

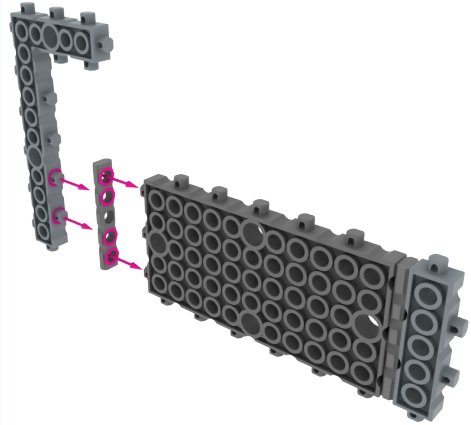




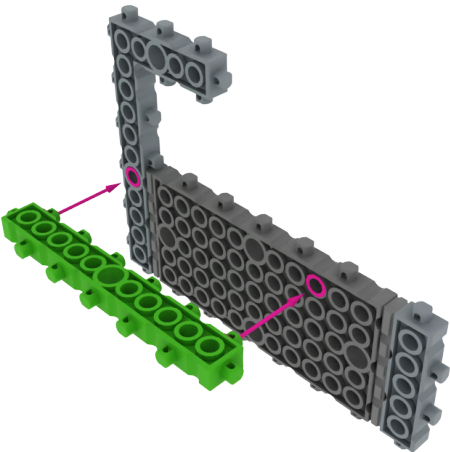
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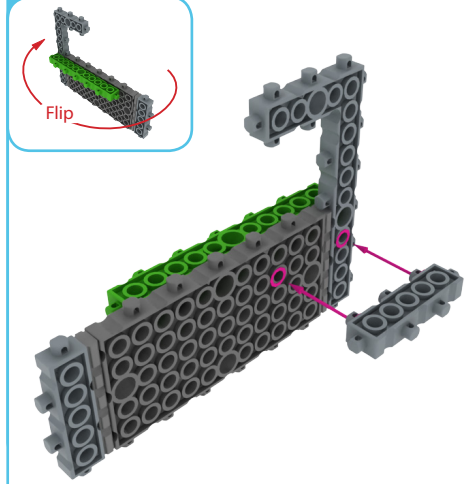
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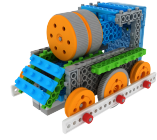


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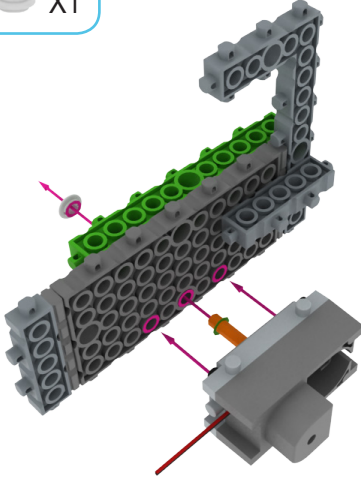
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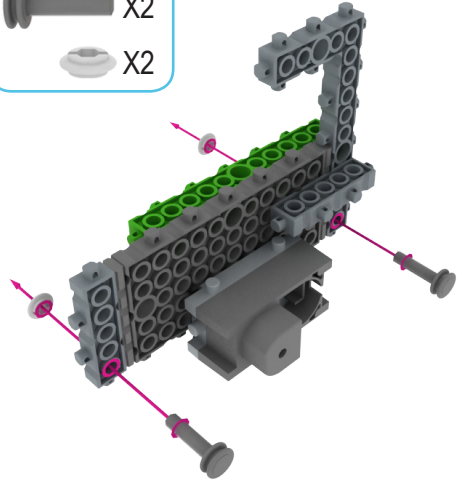
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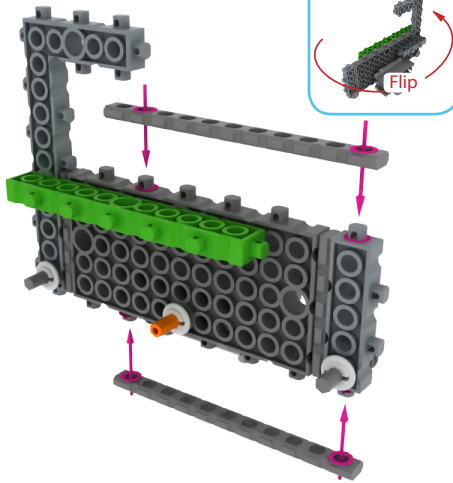
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X2

X2



7



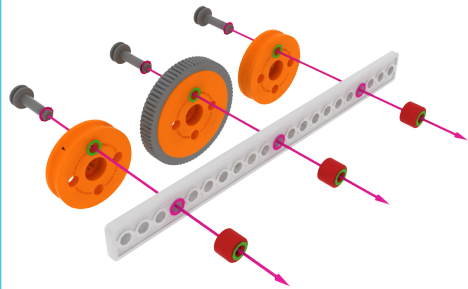
8



Remove rubber cover of small wheel

X3

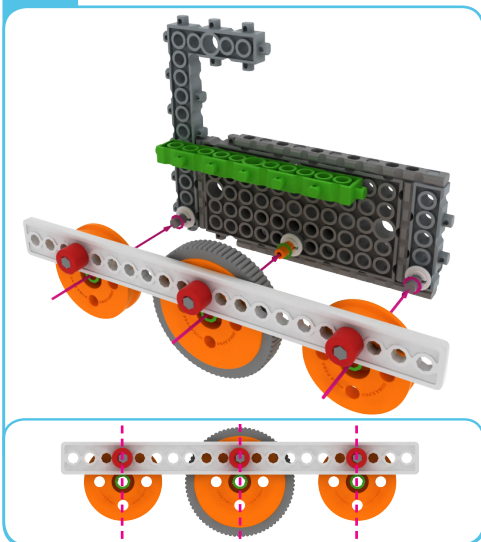
X3



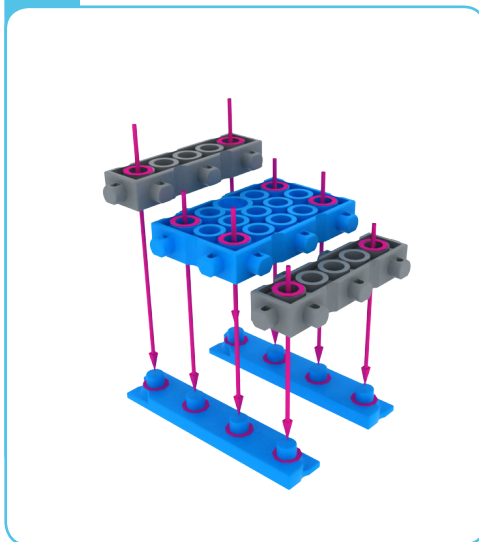
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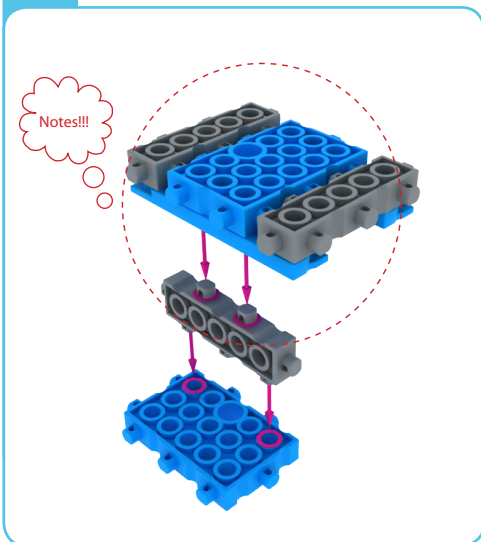
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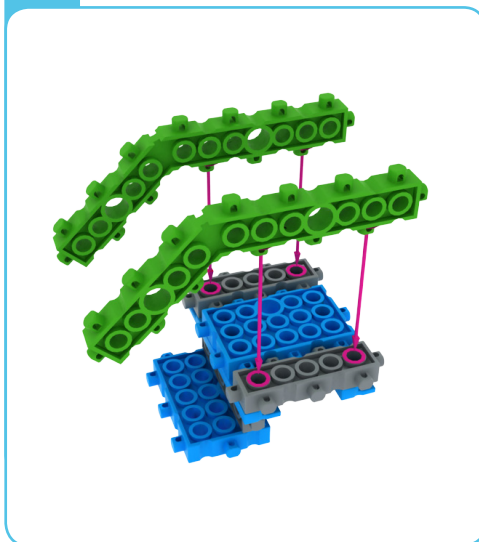
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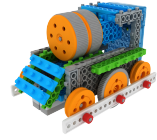


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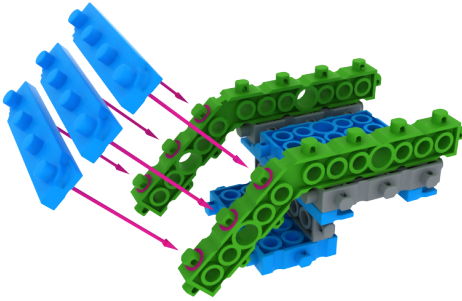


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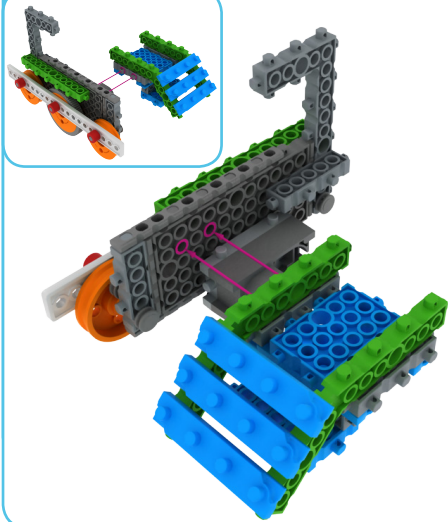




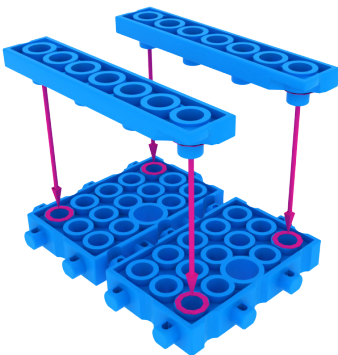
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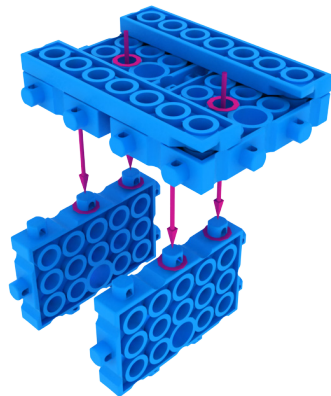
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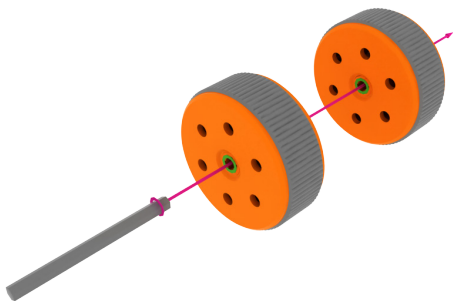


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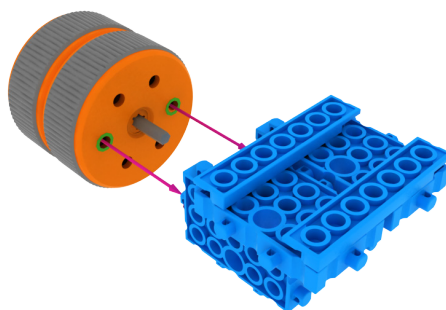




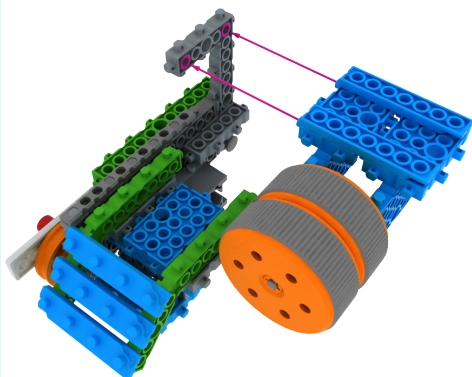
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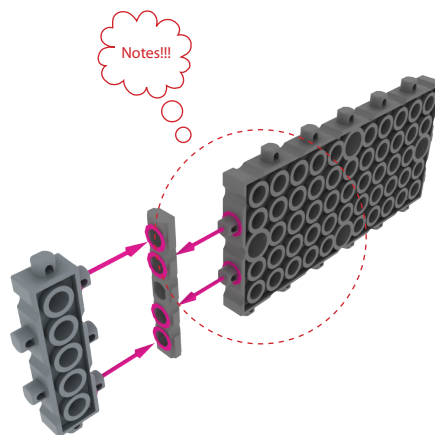
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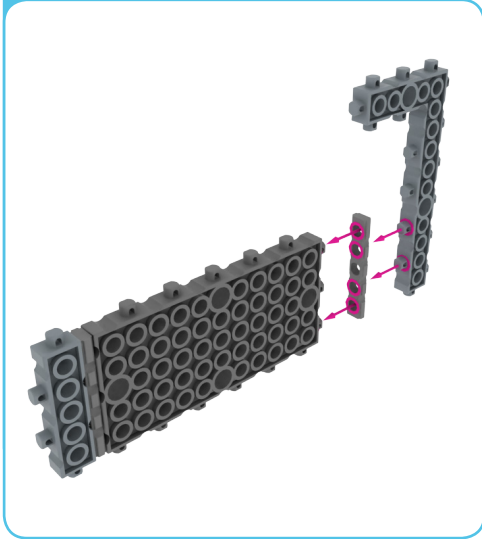


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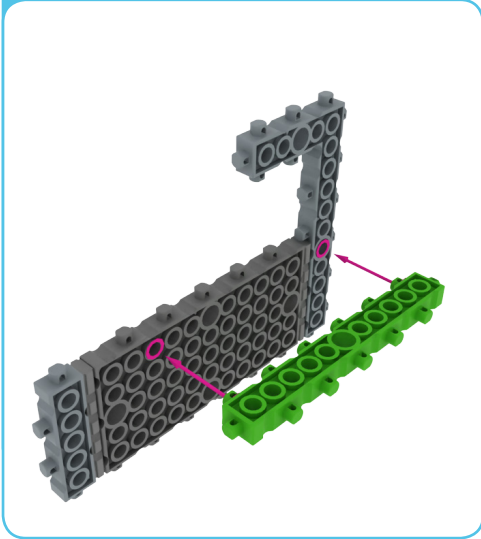




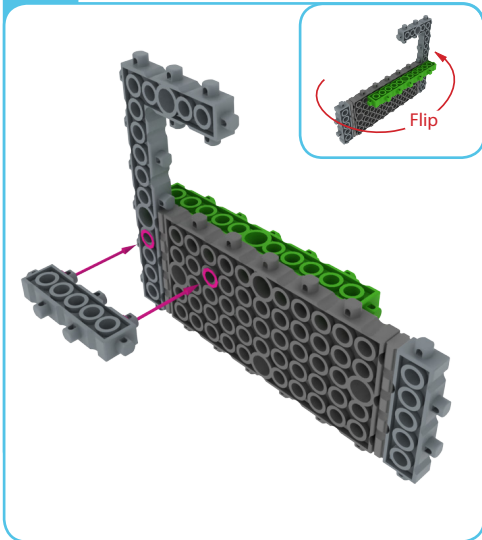
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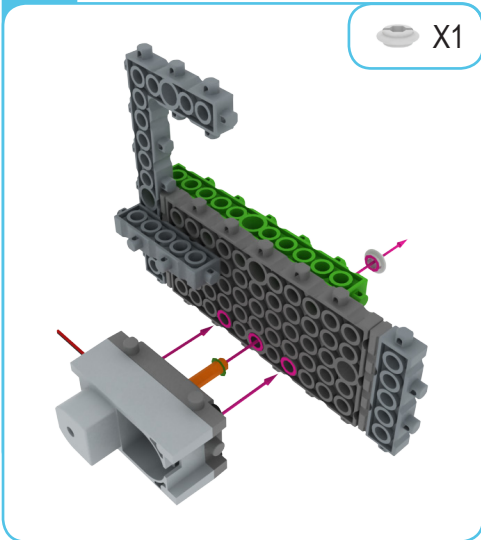
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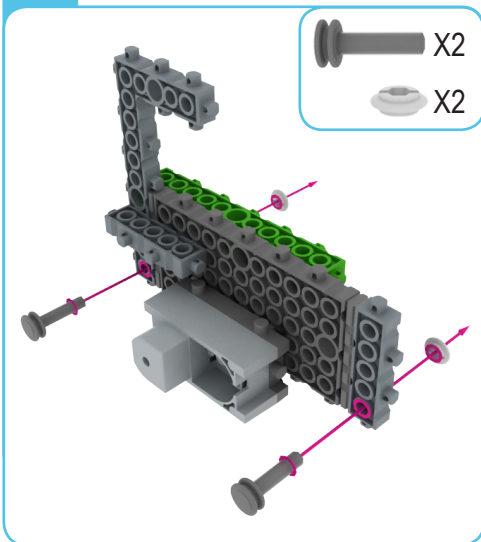


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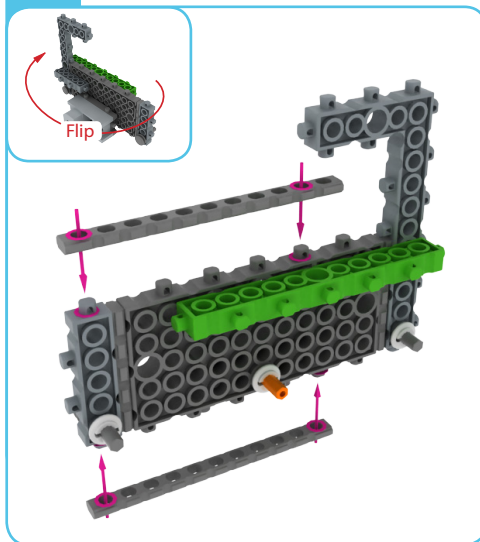




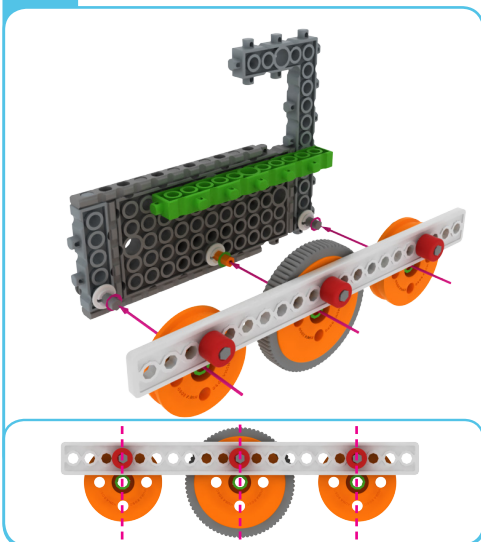
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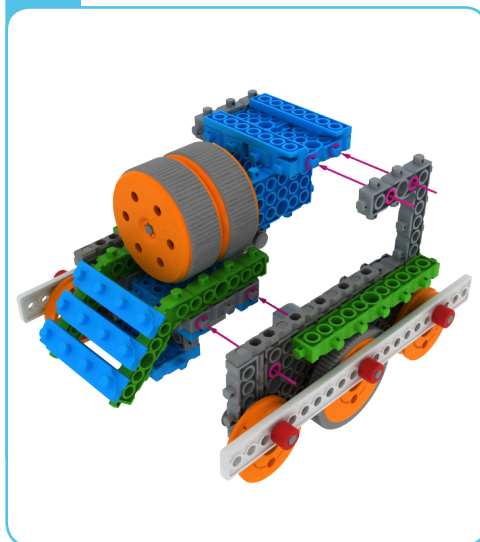
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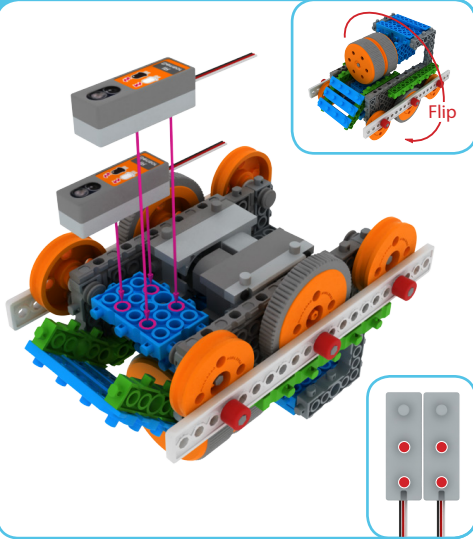


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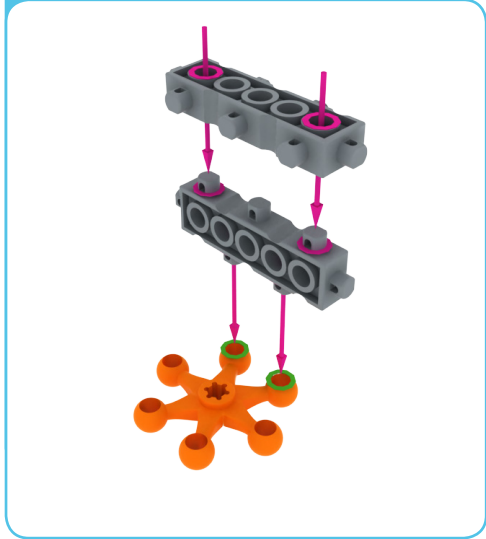




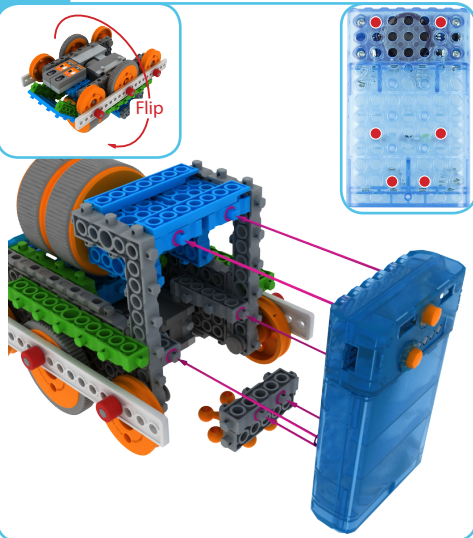
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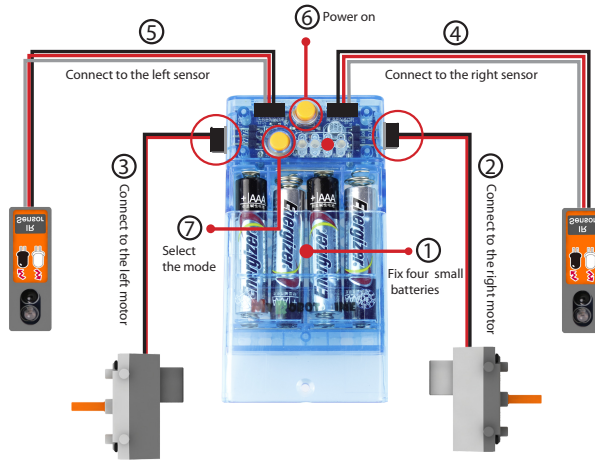
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End

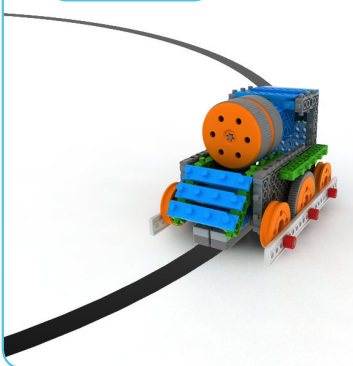


How to activate your robot?



Press the mode button to select the 3rd LED for CHU CHU train robot.

Notes:

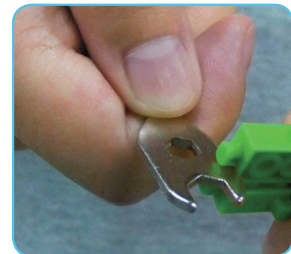
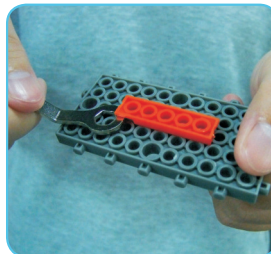


1. CHU CHU robot can run on black tape or line like picture.
2. If your robot did not move, please read the manual carefully.
3. Then, try the process again step by step.



※ The requirement of black line: width ≥ 1.8 cm

Use a spanner to disassemble the blocks.



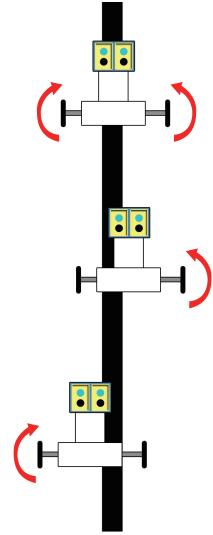
※ When removing the blocks, the edge of blocks might hurt your children. Parents are advised to help children when necessary.

The principle of line tracer robot

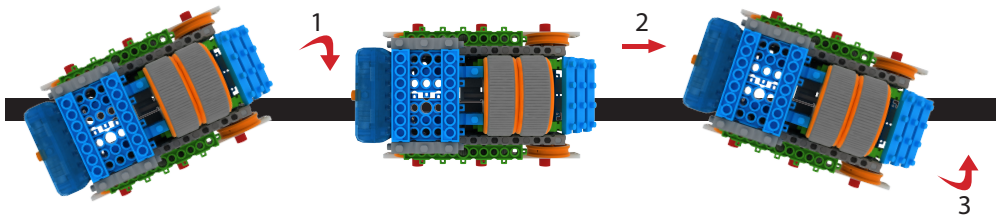
Robot can judge the line position through the reflected light

If left sensor senses light, turn right.

If right sensor senses light, turn left.



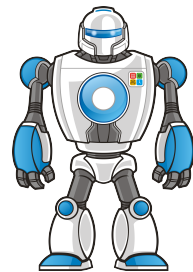
Drive robot



NO.1:When incline to left direction ,robot turn right until sense black line,then walk along black line.

NO.2:Walk forward.

NO.3:When incline to right direction ,robot turns left until sense black line,then walk along black line.



Fire truck robot

Sound :

The robotic fire truck can sounds the fire alarm like a real fire truck.

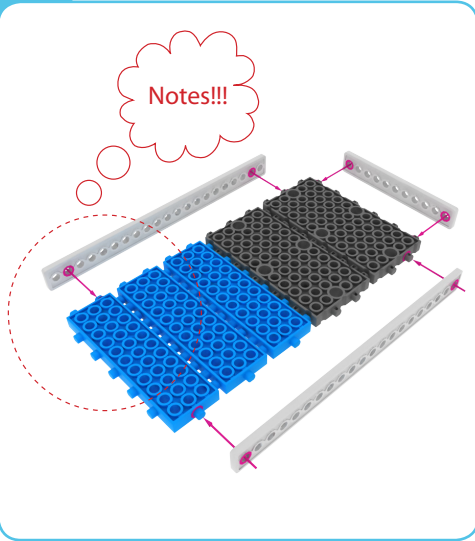
Function :

If the truck senses an obstacle, it will avoid that obstacle.

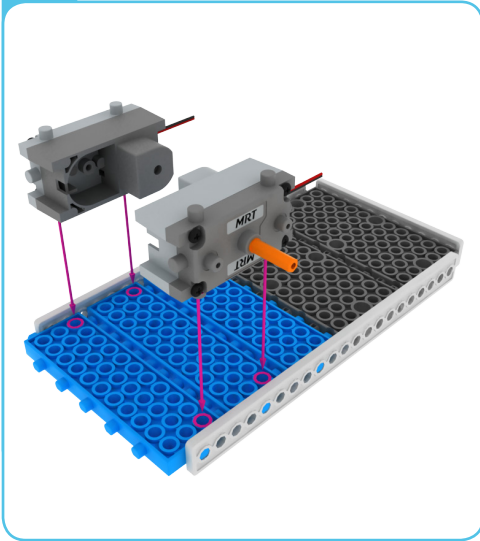




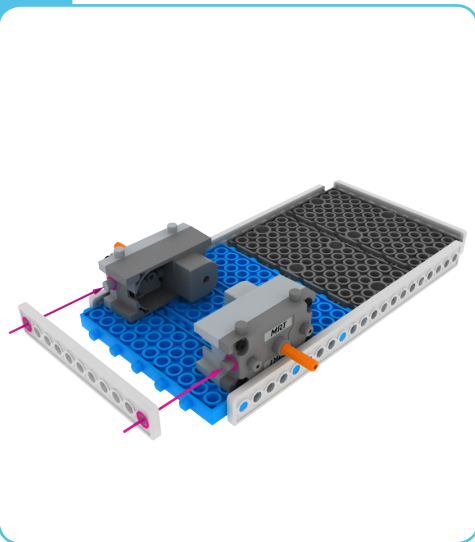
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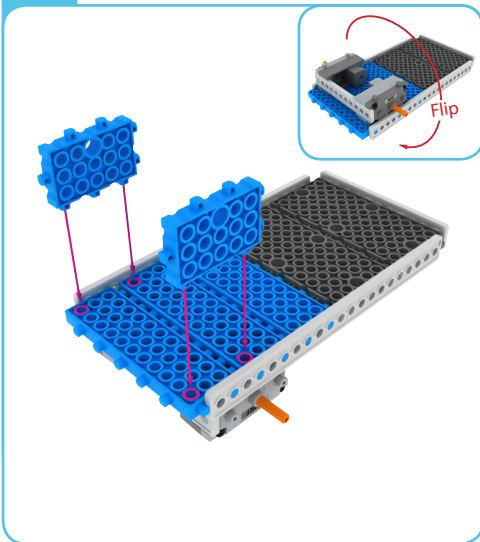
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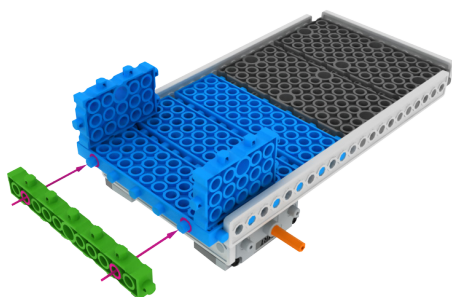


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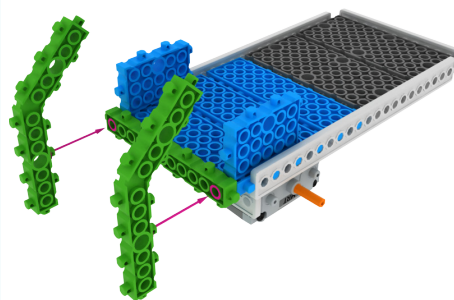




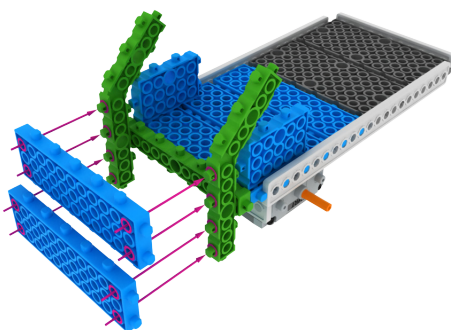
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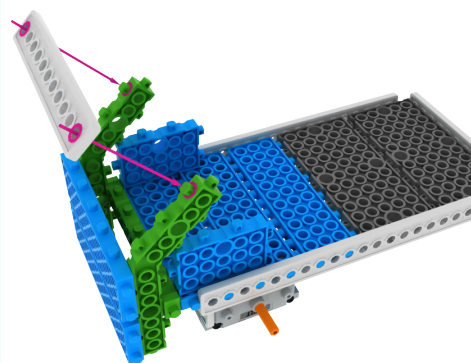
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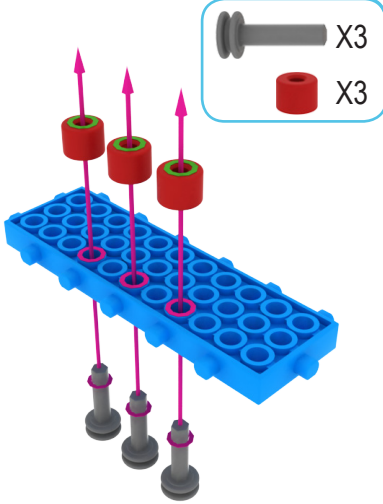


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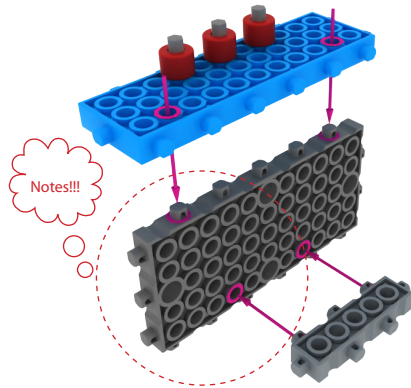




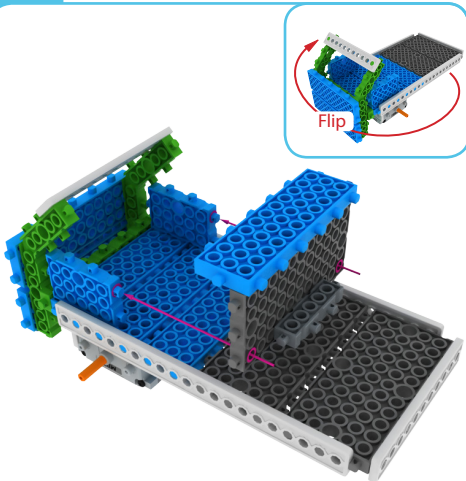
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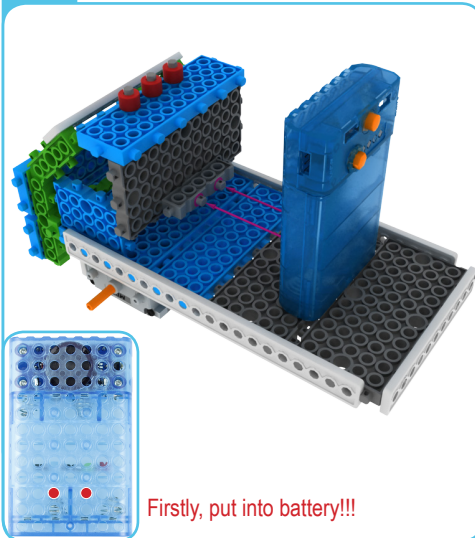
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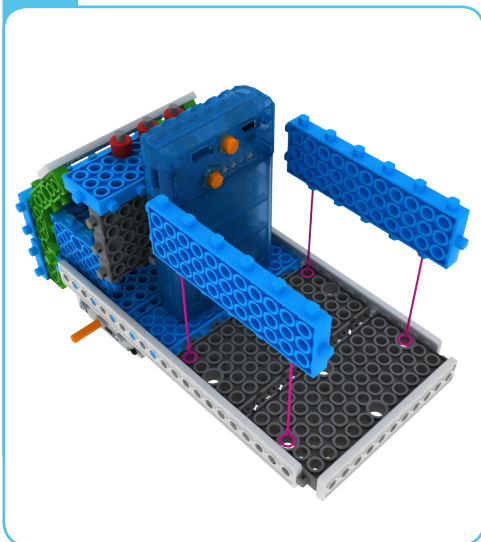


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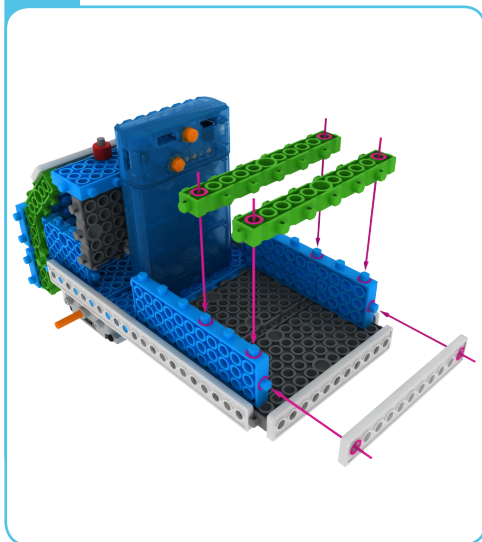




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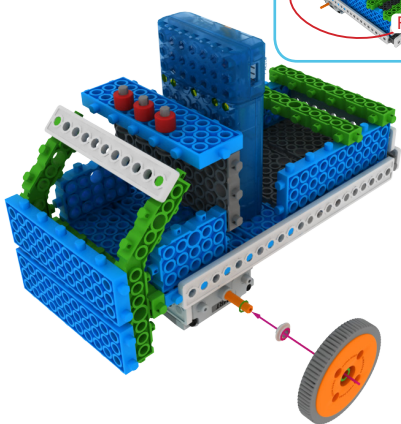
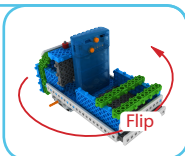


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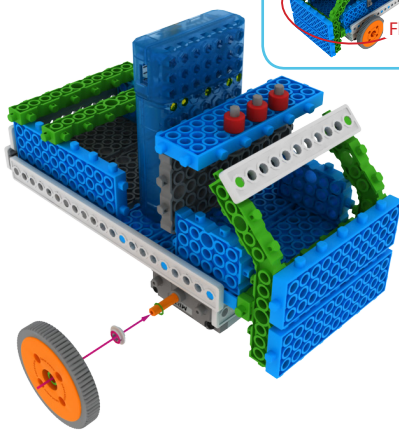
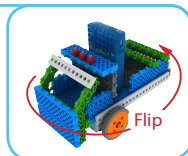
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X1



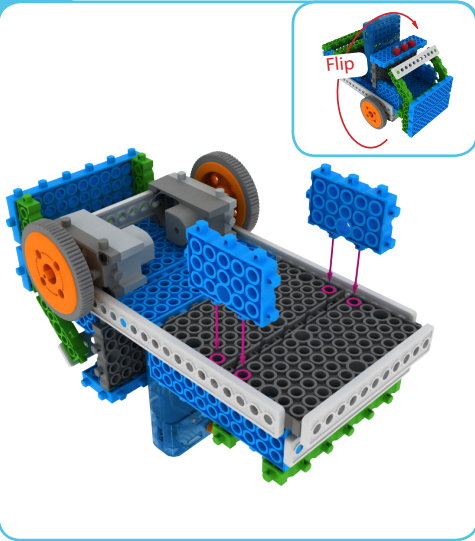
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X1

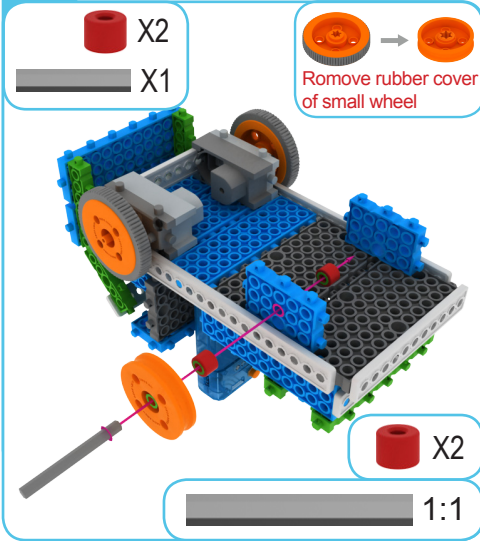




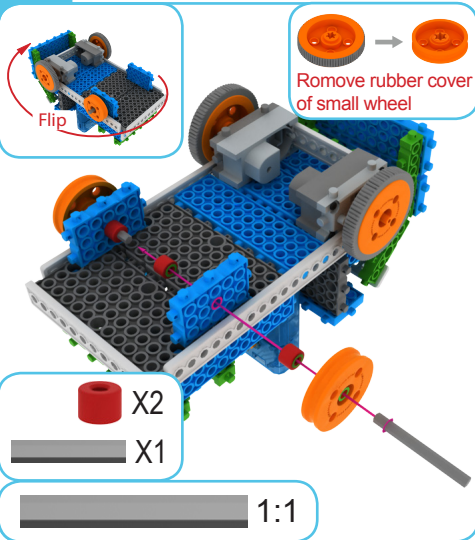
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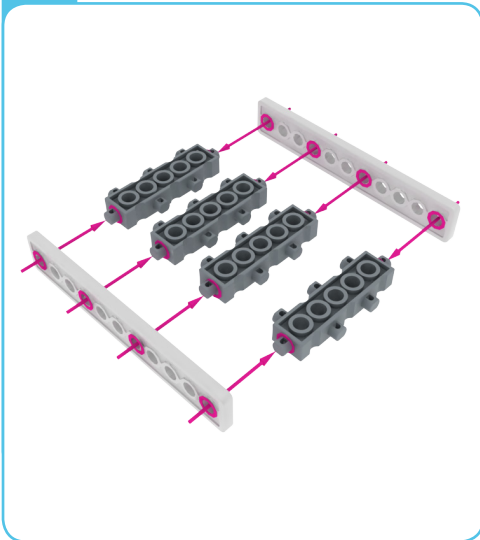
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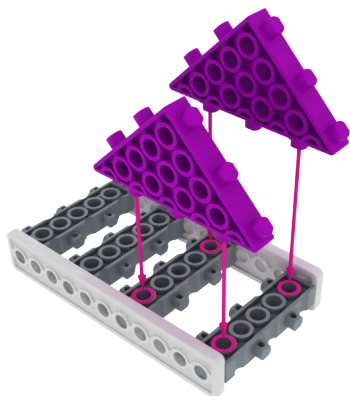


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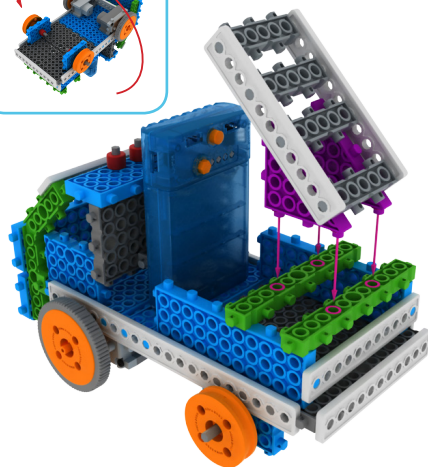
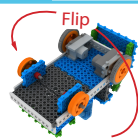




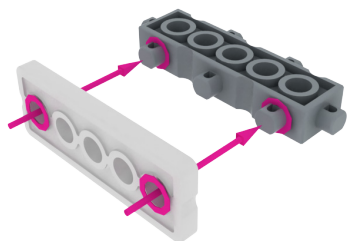
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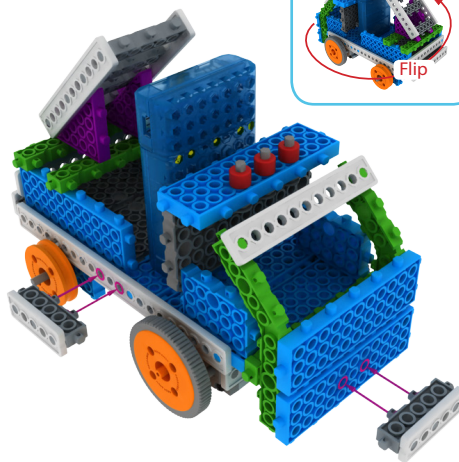
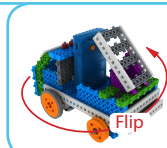


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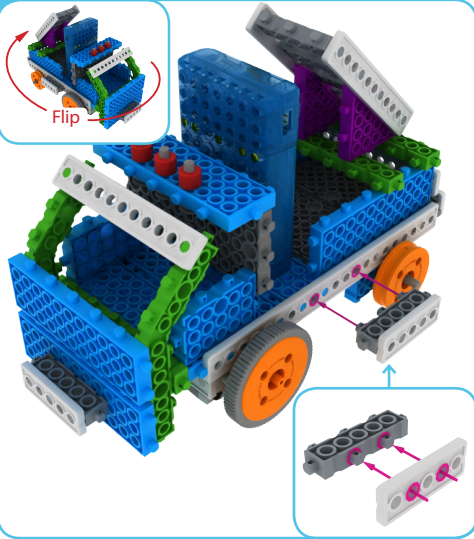
X2

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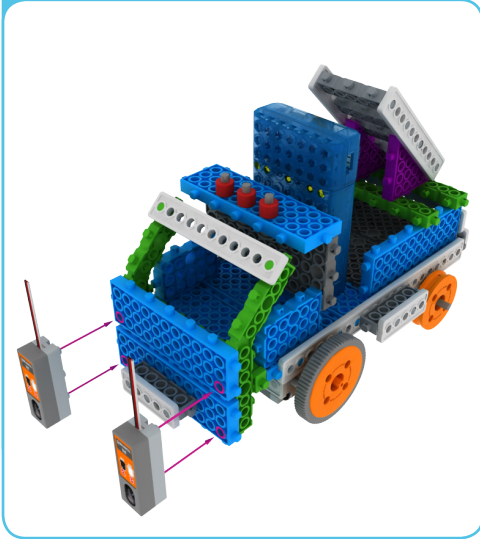




25



26



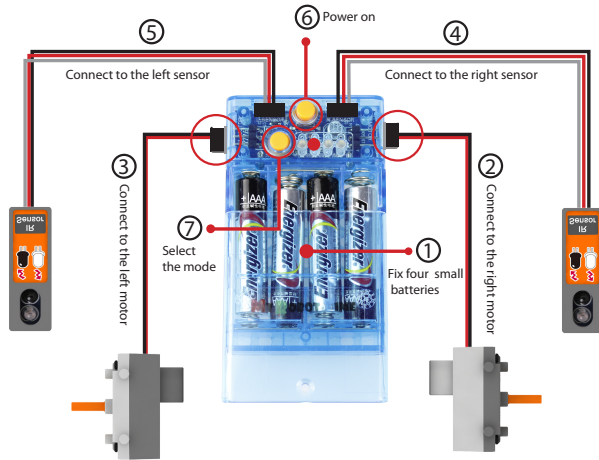
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End



How to activate your robot?

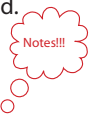


Press the mode button to select the 2nd LED for fire truck robot.

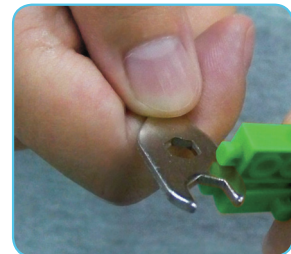
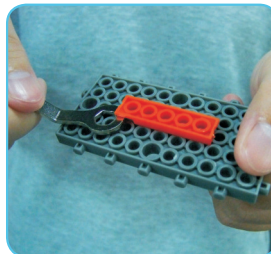
Notes:



1. Fire truck robot can run if it senses something it will change the direction and go with sound.
2. If your robot does not move, please read the manual carefully.
3. Then, try the process again step by step.

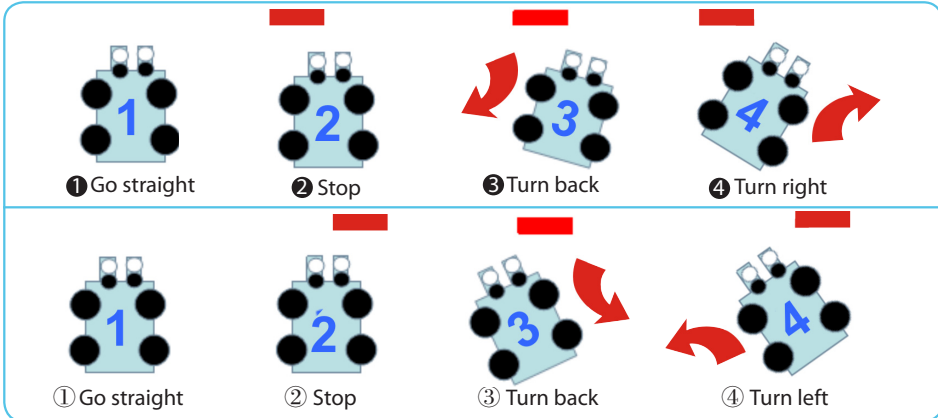


Use a spanner to disassemble the blocks.



※ When removing the blocks, the edge of blocks might hurt your children. Parents are advised to help children when necessary.

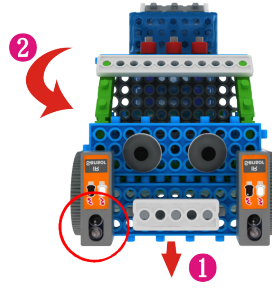
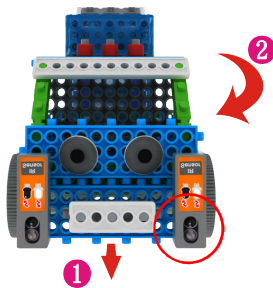
Obstacle avoidance principle



Drive Robot

1 Left IR sensor sense the information

2 Right IR sensor sense the information



1. Left IR sensor senses the information :Fall back, and then turn right.
2. Right IR sensor senses the information :Fall back, and then turn left.

Besides fire truck, there are many different cars around us. Write down the name of cars in the pictures and create your own car.



Skier robot

Sound :

When skier robot senses cliff of table, it make a screaming sound "WOW"

Function :

If skier robot senses a cliff or edge on your table, it stops and changes the direction with sound.





1

X1

2

X2
X1
1:1

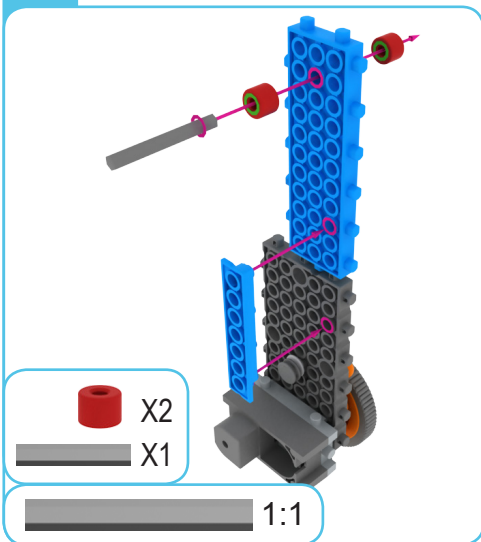
3

X1
X1

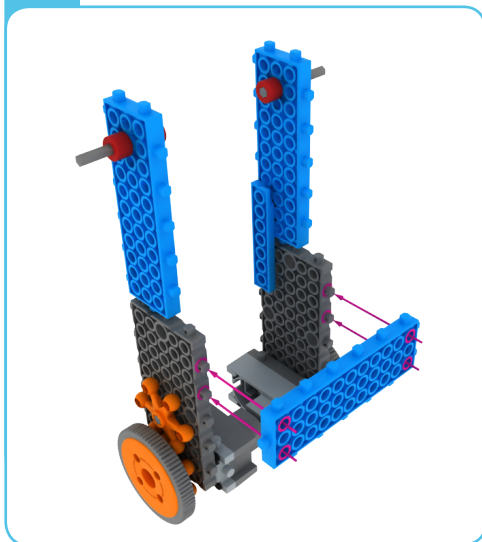
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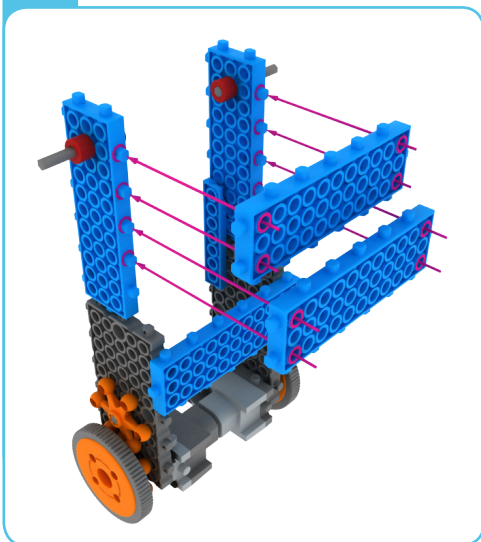
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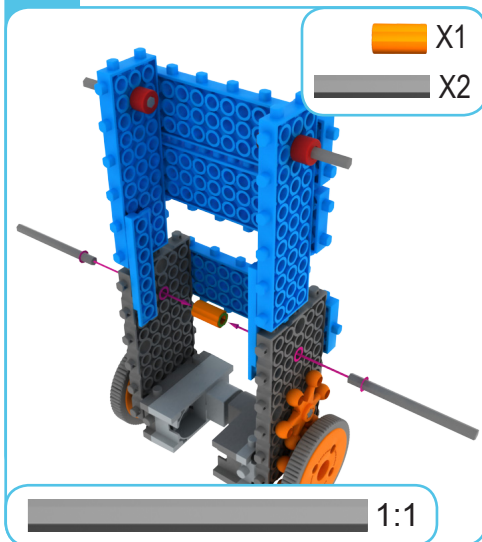
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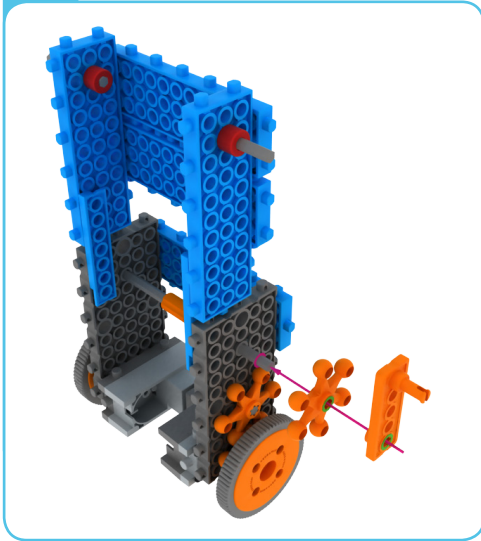


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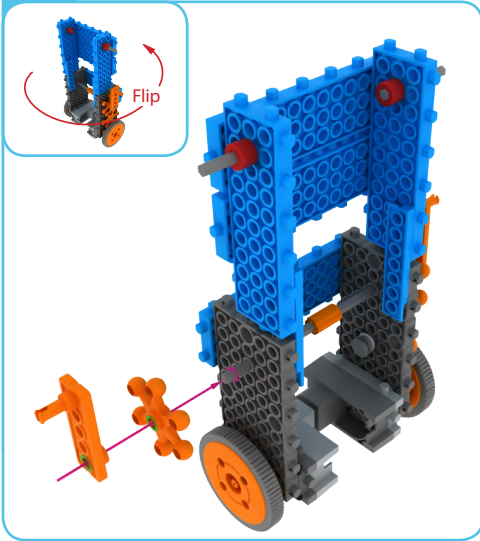




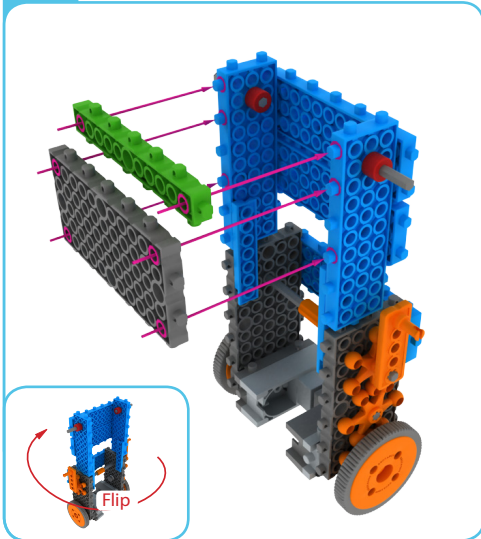
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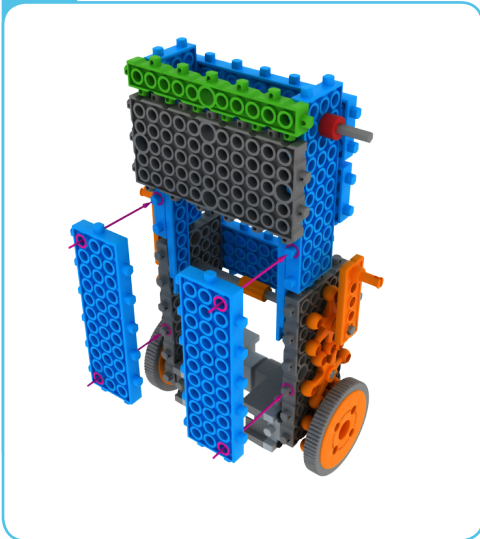
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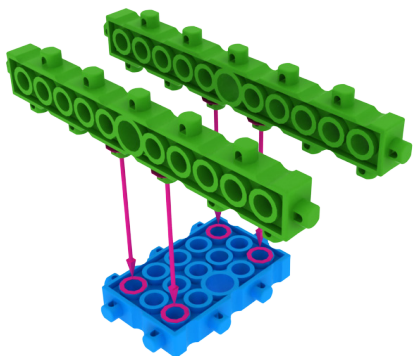


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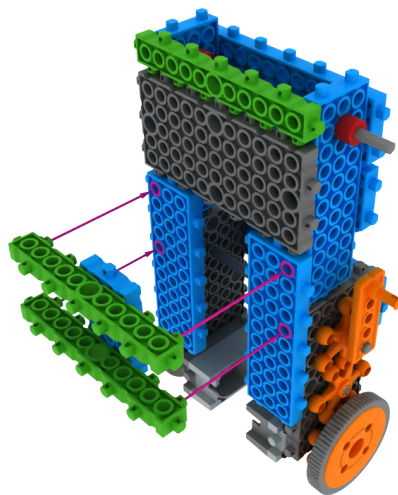




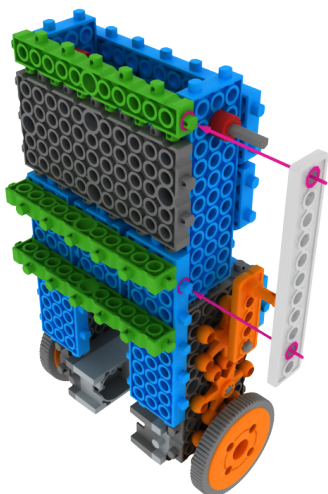
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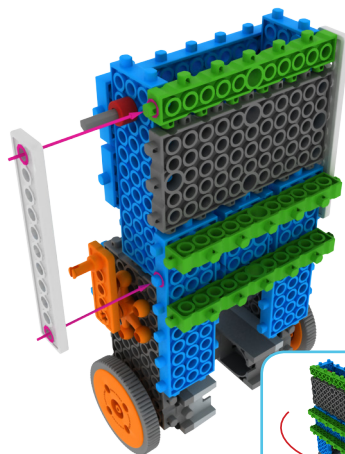
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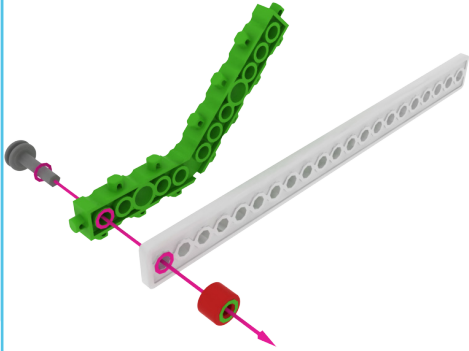
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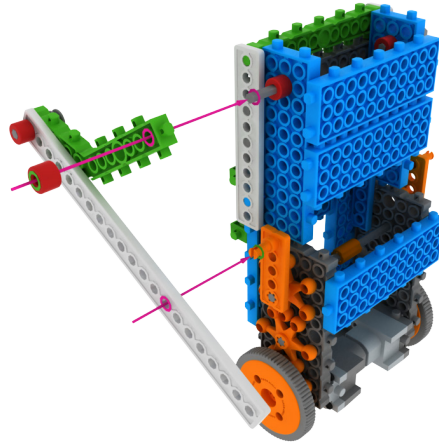
17

- X1
- X1



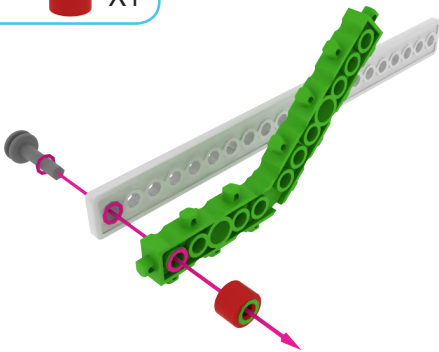
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- X1



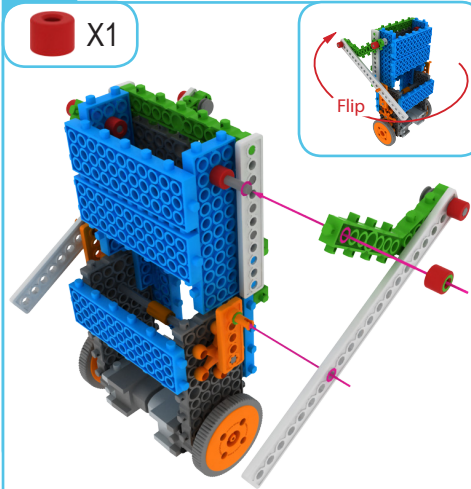
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- X1
- X1



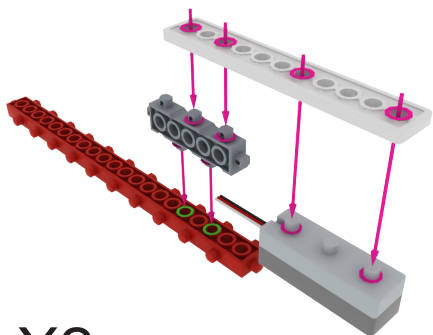
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- X1



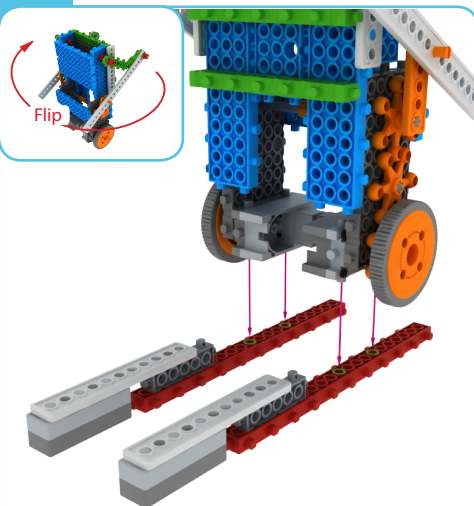


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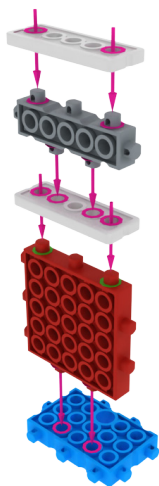


X2

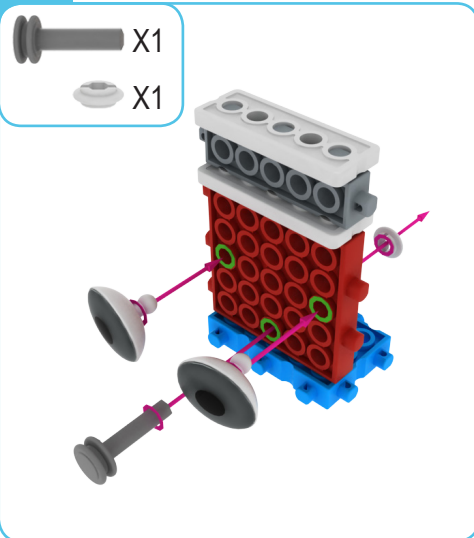
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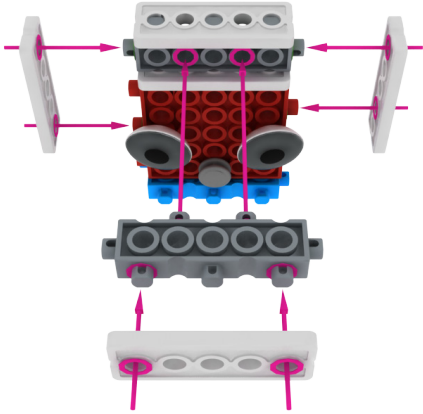


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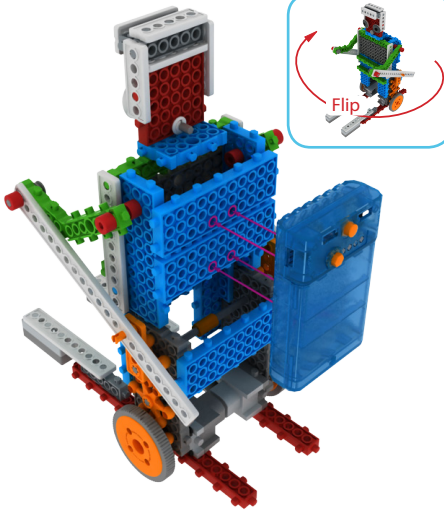
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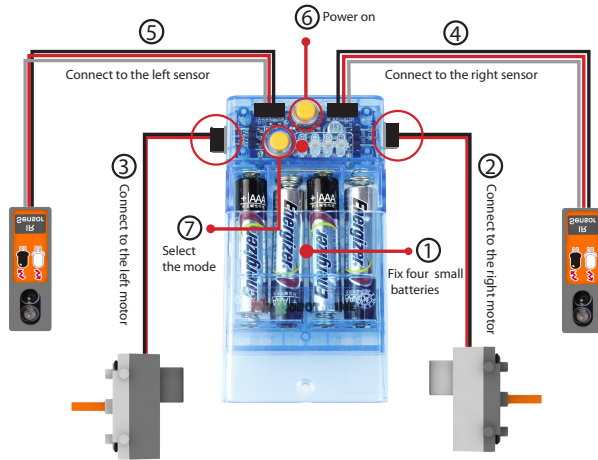
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End

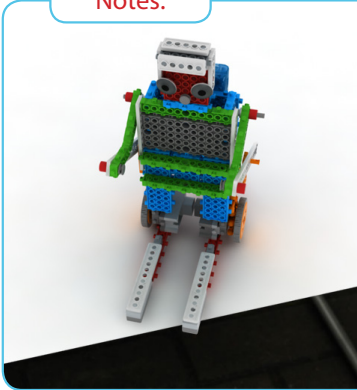


How to activate your robot?



Press the mode button to select the 1st LED for Skier robot.

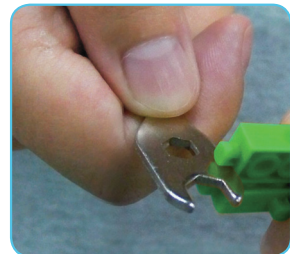
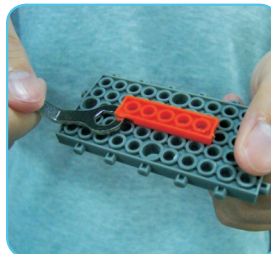
Notes:



1. Skier robot play ski if it senses the edge or cliff of table it will change the direction with screaming and play ski again.
2. If your robot does not move, please read the manual carefully.
3. Then, try the process again step by step.

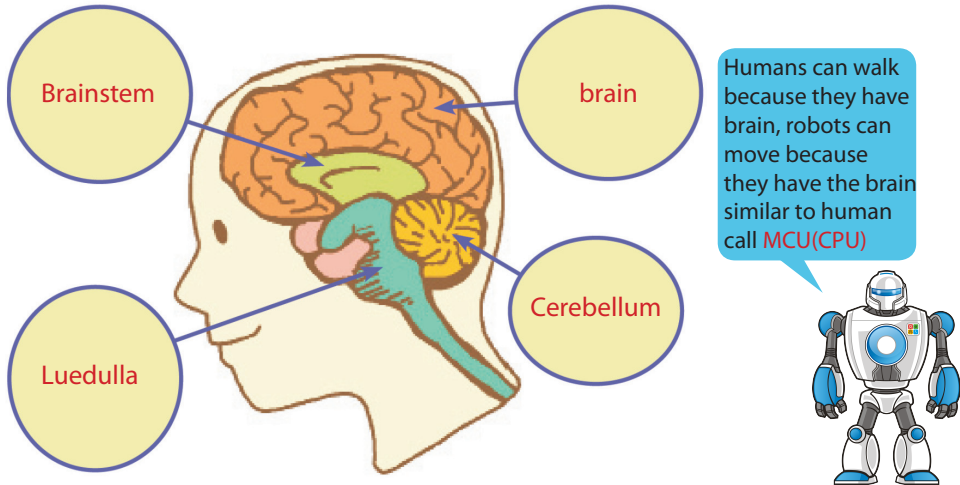
Notes!!!

Use a spanner to disassemble the blocks.

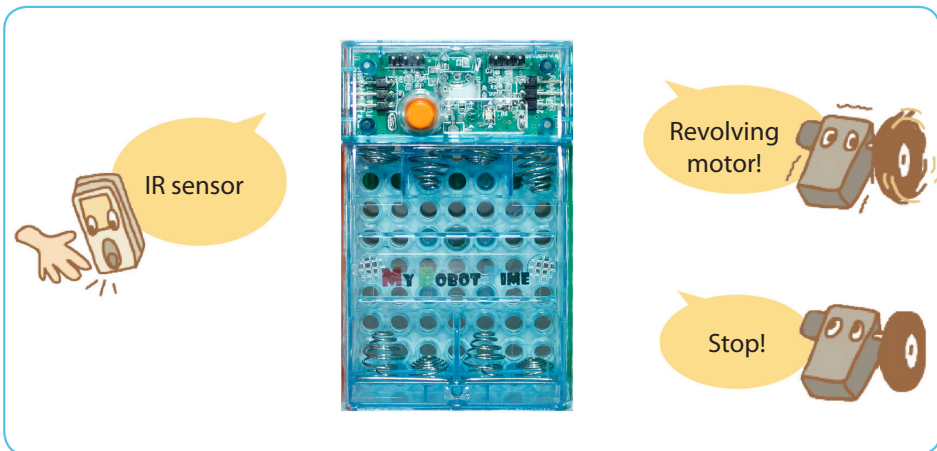


※ When removing the blocks, the edge of blocks might hurt your children. Parents are advised to help children when necessary.

Mother Board principle



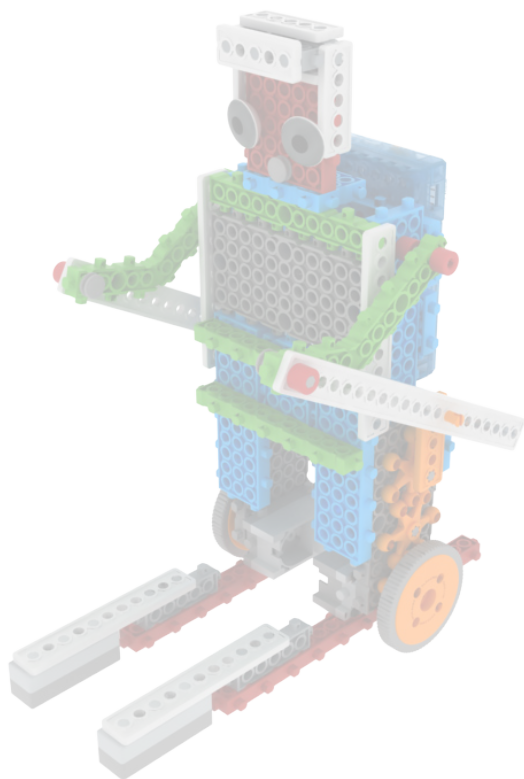
What's the duties of mainboard?



MEMO



MEMO



MY ROBOT TIME-SENSING VER1.2

First edition | Aug.20.2013

Revised edition | Dec.1.2013

Publisher | MRT International Limited

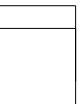
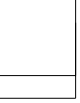
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my robot TIME Toy Style Educational Robotics
Good for family, kindergarten Activity



My ROBOT TIME story



My ROBOT TIME sensing



My ROBOT TIME exciting

MRT 3 Lesson Style Educational Robotics
Good for primary school Activity



STEAM CLASS 1



(Pre-programmed models), 1 workbook contains



STEAM CLASS 2



(Pre-programmed models), 1 workbook contains



STEAM CLASS 3



(Programmable), 1 workbook contains



STEAM CLASS 4



GUI(Graphic User Interface) programming software contains

Student can learn C-language Program while they are making many robots in our workbook.
If trainer or teacher or father can help children it would be better.



Designed by MRT Intenational in Korea [Http://www.huna.asia](http://www.huna.asia) / [Http://www.hitp.asia](http://www.hitp.asia)



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