Name :

Age :

Student ID:



# Basic 6



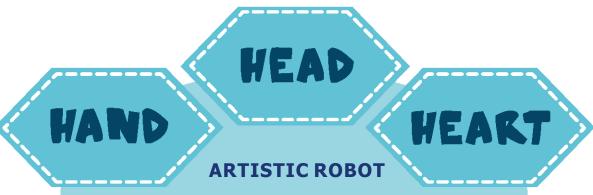
### What is Kicky?

Kicky educational robotics series is a combination of robot assembling and early childhood integrated programs that encourage our children to learn, explore and build a foundation for a bright future.

Another smart kit presented by



### 3H Approach



Kicky embodies a 3H (Hand, head and Heart) framework where by designing, building and programming an autonomous robot, they are exposed to these advance concepts in a 'hands-on mind-on' inquiry-based format which is fun-filled, and full of challenges.

#### **Basic Series models**



# KICKY contents



#### **Basic Series - Lesson 11**

**The Frog and The Mouse** 

Read the fairy tale and learn a lesson.

- 1. < Mouse >
  Mice are afraid of water.
  Create a mouse.
- 2. < Eagle >
   Eagles have sharp beaks and claws.
   Create an eagle.

## Fairy tale -11

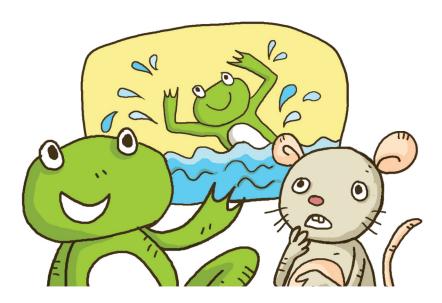
Today's lesson: Friends look out for each other.

# The Frog and The Mouse





The frog and the mouse are close friends. They meet everyday to have fun. They promised each other to go anywhere together. So they got their ankles tied together.



"Where shall we go to play today?" asked the mouse. "I want to go swimming," answered the frog. "But I'm terrible at swimming," said the mouse. "It's okay, I will try to learn." The frog assured the mice that it will be fine and not to worry.



With fear, the mouse jumped into the water with the frog. Plop, plop, was the sound as the frog swam deeper under the water. Meanwhile, the mouse was struggling to stay above the water but it drank too much water and died.



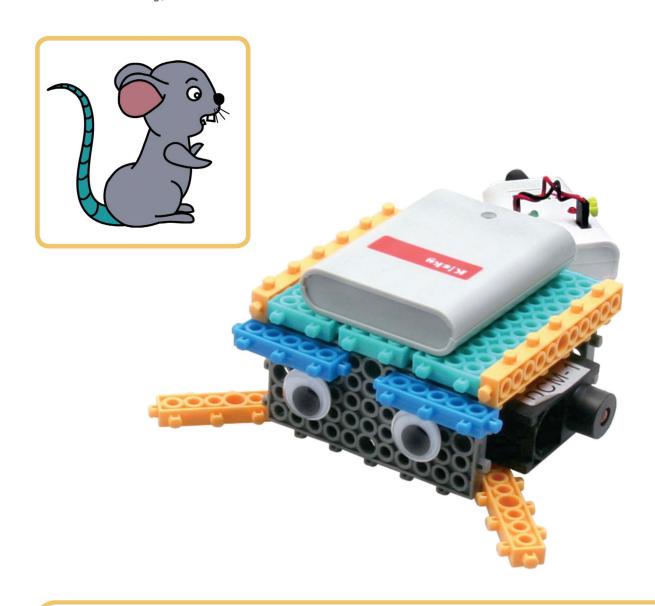
Suddenly a hungry eagle saw the mouse floating above the pond. It flies down to catch the mouse. Unfortunately, the frog was tied to the mouse and so the frog also became the eagle's prey.



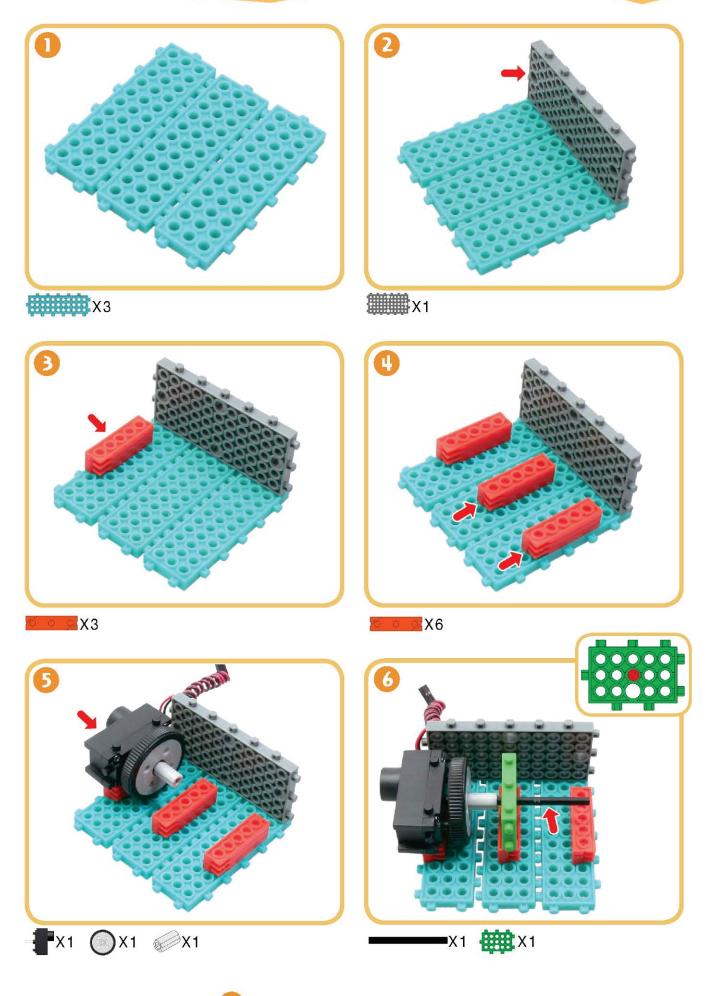
## 1. Mouse



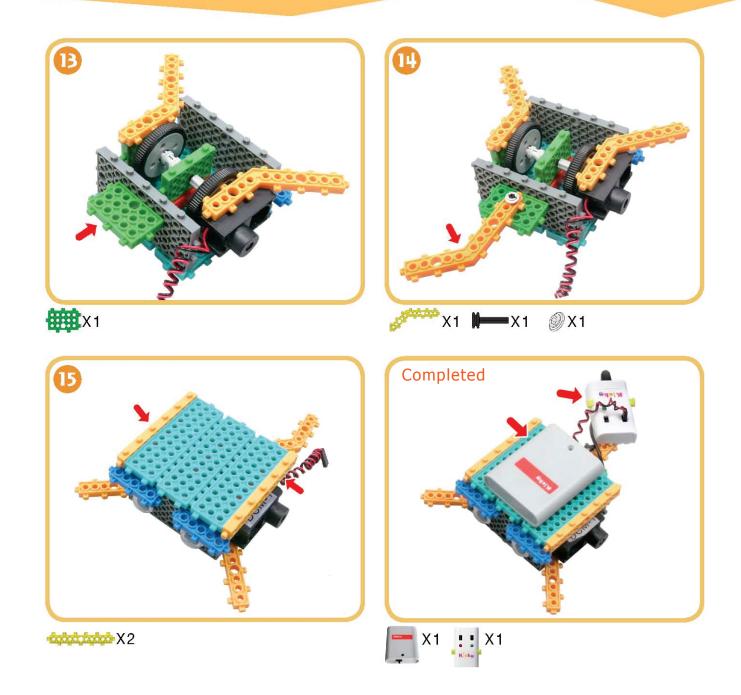
Mice are afraid of water. Create a mouse.



A mouse is a small mammal belonging to the order of rodents, characteristically having a pointed snout, small rounded ears and a long hairless tail. It is also a popular pet.



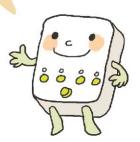


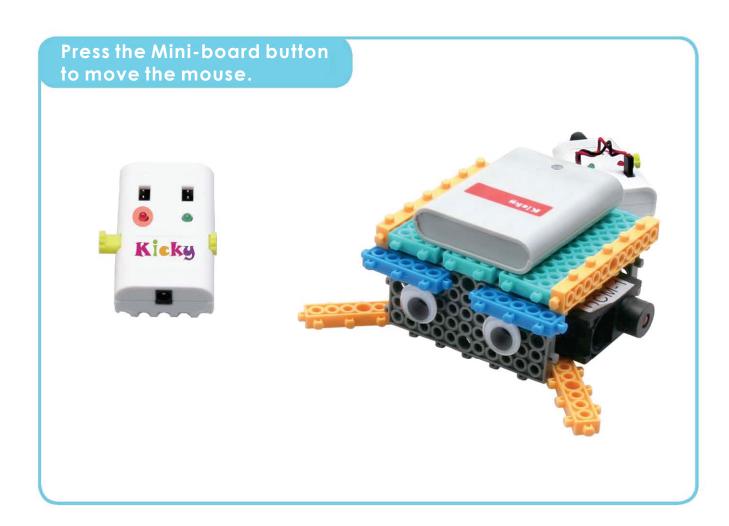


## Move the robot Mouse



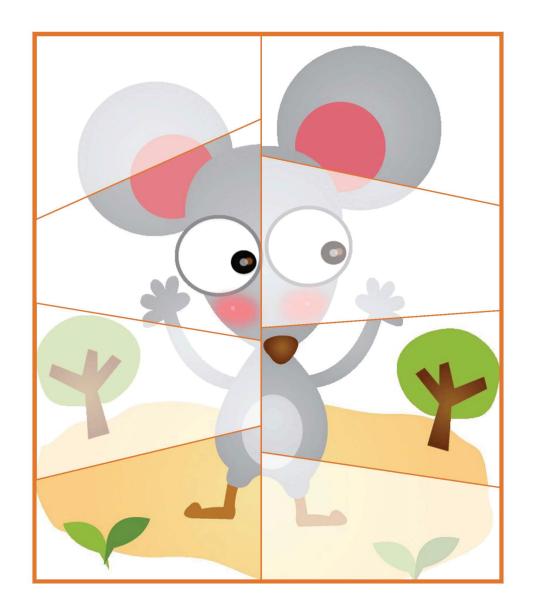
- 1. Connect DC motor to Left motor connector.
- 2. Connect battery case to Power connector.







Match the puzzle pieces.





# 2. Eagle



Create a sharp beak eagle.





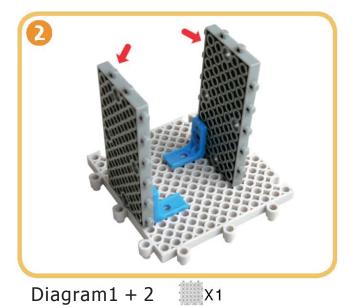




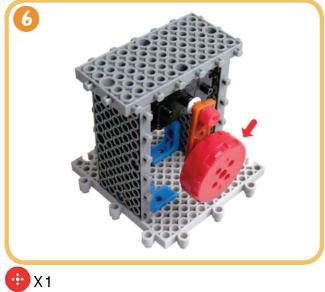




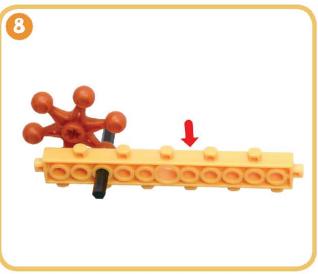


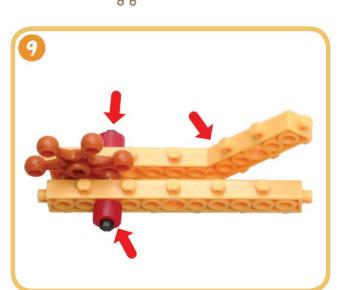
Diagram2 + Diagram 3

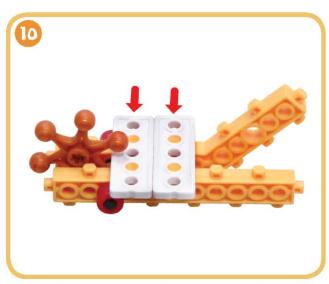




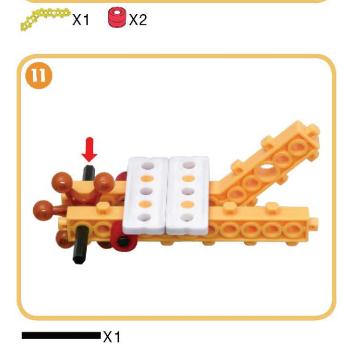


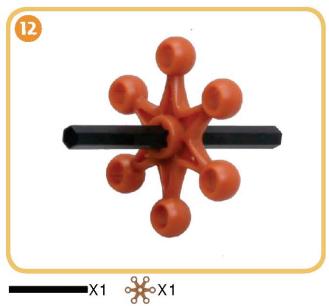


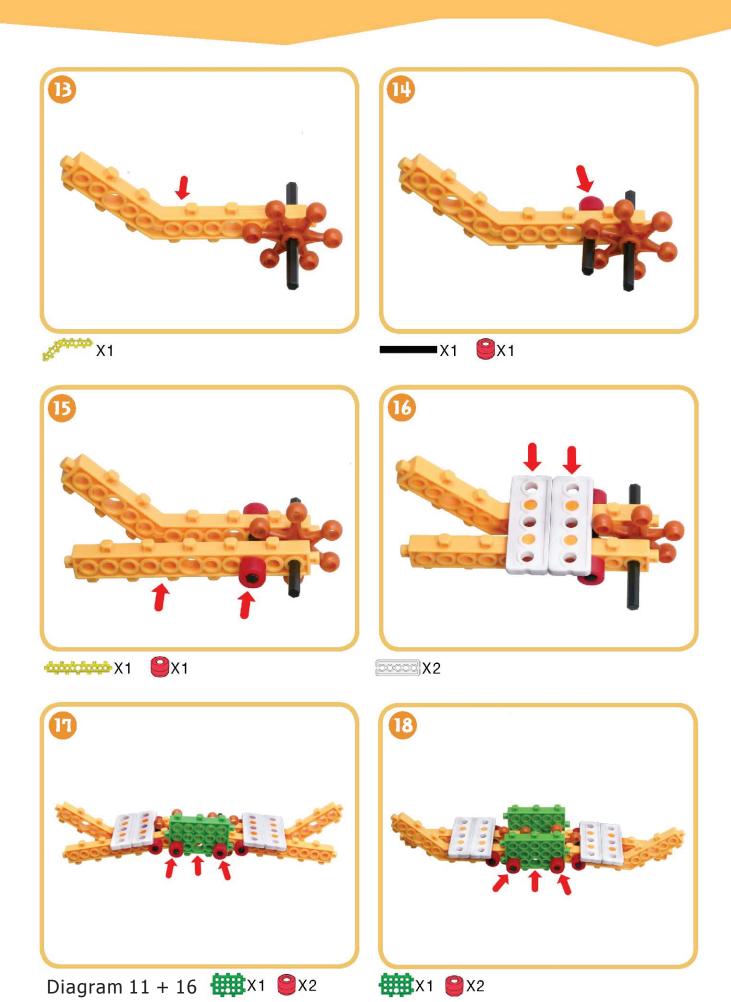




00000 X2

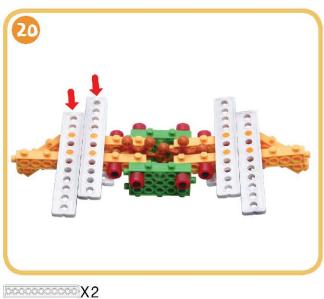






13











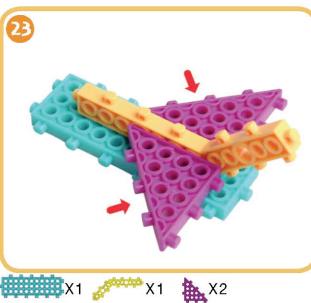


Diagram 22 + Diagram 23

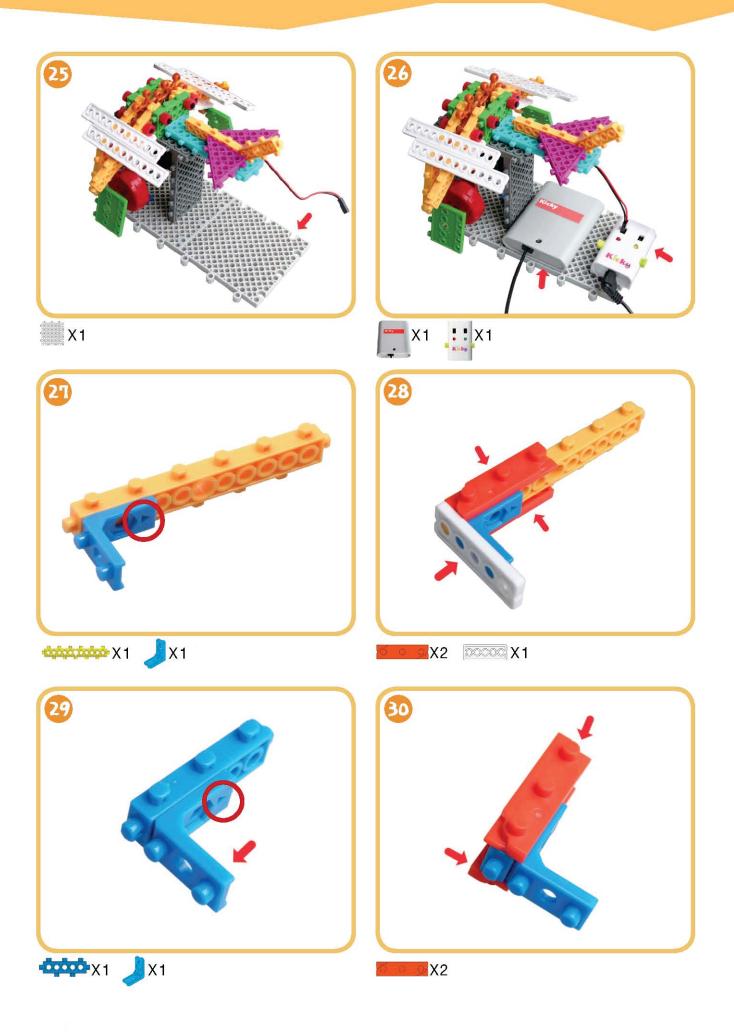




Diagram 28 + 30 🗪 x1 🧩 x1









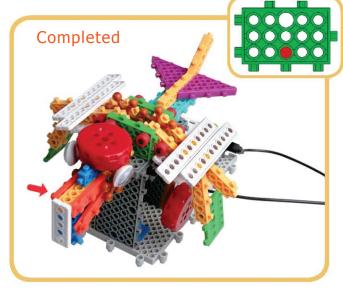
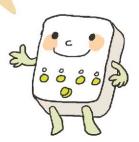


Diagram 26 + 33

## Move The Eagle



- 1. Connect DC motor to Left motor connector.
- 2. Connect battery case to Power connector.







Find the correct foot print and match it.





# KICKYcontents



#### **Basic Series - Lesson 12**

- 1. < Auto Car > Create a moving car.
- 2. < Ferris Wheel > Create a Ferris wheel with a few capsules going round and round.
- 3. < Spinning Tea Cup >
  Also known as the spinning cup which can be found at a funfair.
- 3. < Carousel > Build a ride that rotates 360 degrees in the air.

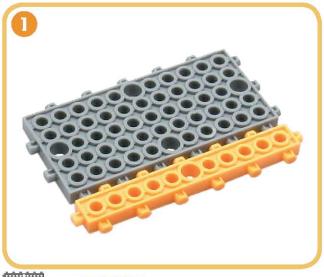


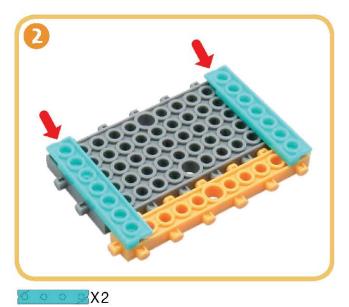
## 1. Auto Car



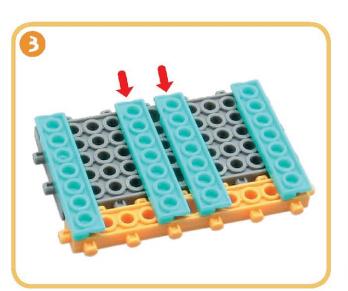
Create a car.

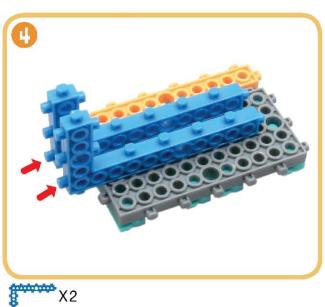




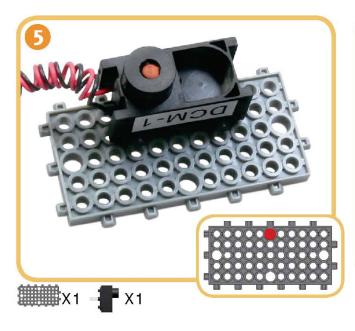


X1 X1 X1

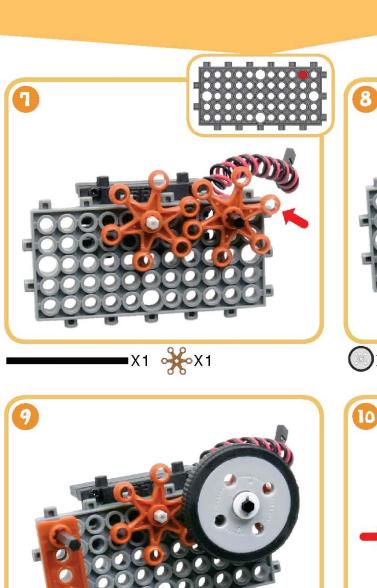




000000 X2

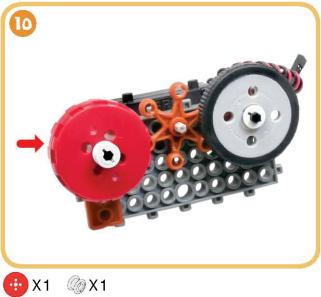














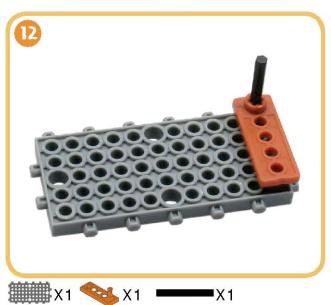


Diagram 4 + Diagram 10





Diagram 11 + Diagram 13





**○**X1 **⊚**X1

**1** X1



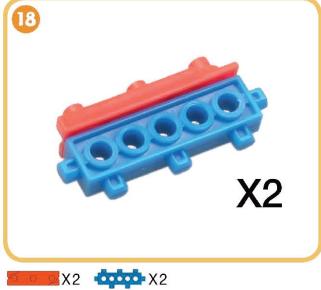




Diagram 17 + Diagram 18

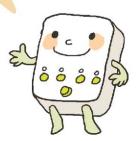




## Move the robot **Auto Car**



- 1. Connect DC motor to Left motor connector.
- 2. Connect battery case to Power connector.



## **MOVE THE ROBOT**



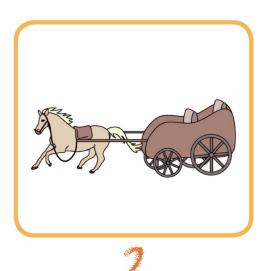
**Press the mini-board** button and the car will move. Vroom... vroom...

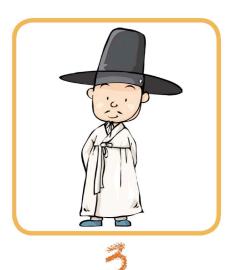




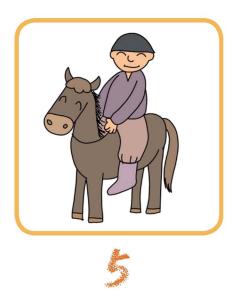
Find out the development of our transportation. Write the order in the ().











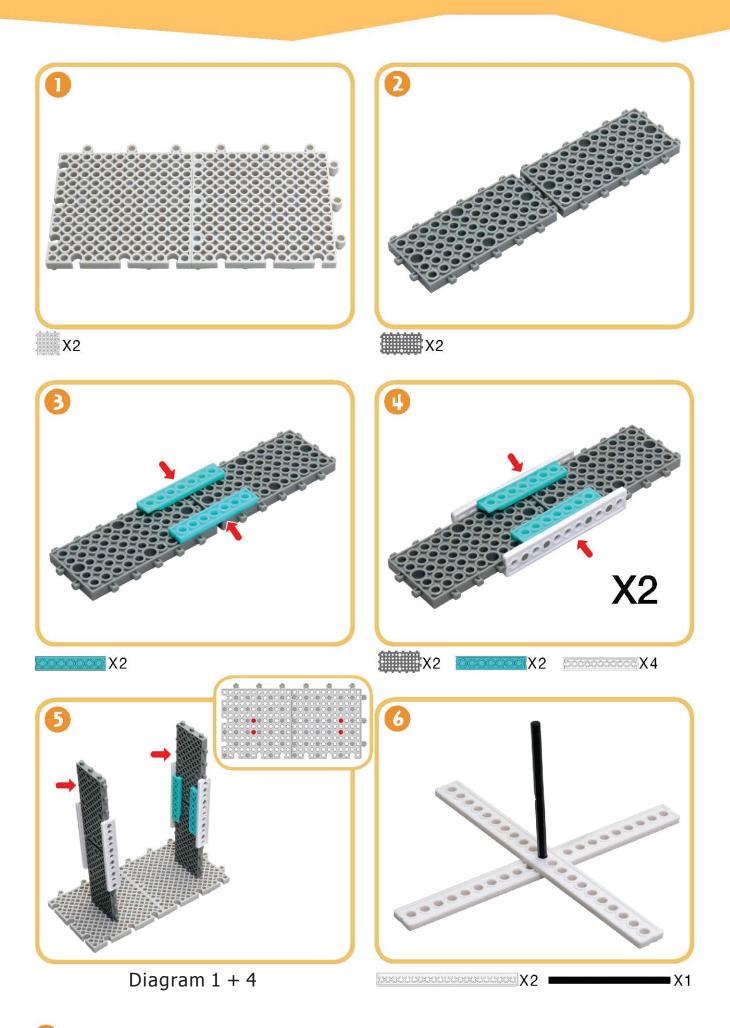
$$( ) \rightarrow ( )$$

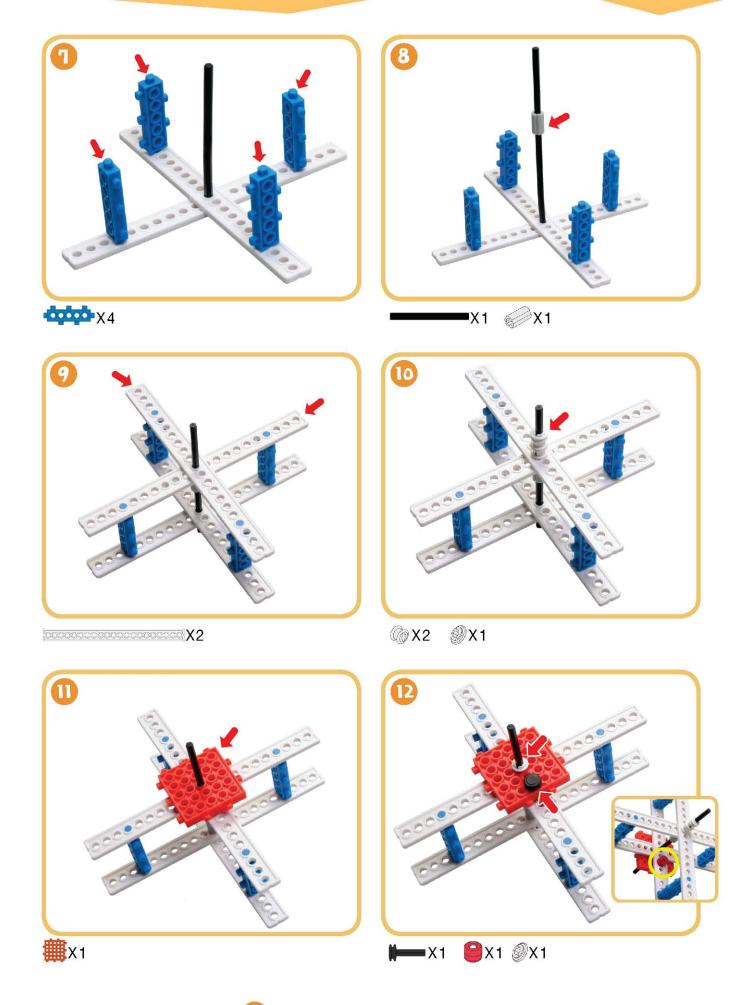


## 2. Ferris Wheel

Make a few capsules to rotate around the Ferris wheel.





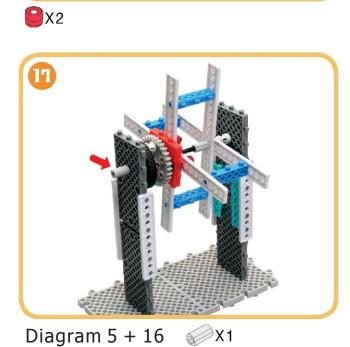
















## Move the robot **Ferris Wheel**



- 1. Connect DC motor to Right motor connector.
- 2. Connect battery case to Power connector.



## Move the Ferris wheel.



**Press the Mini-board button** and the Ferris wheel will go round and round.



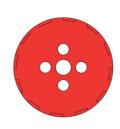


Which block is not required to create a Ferris wheel?

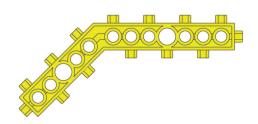


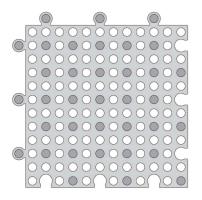












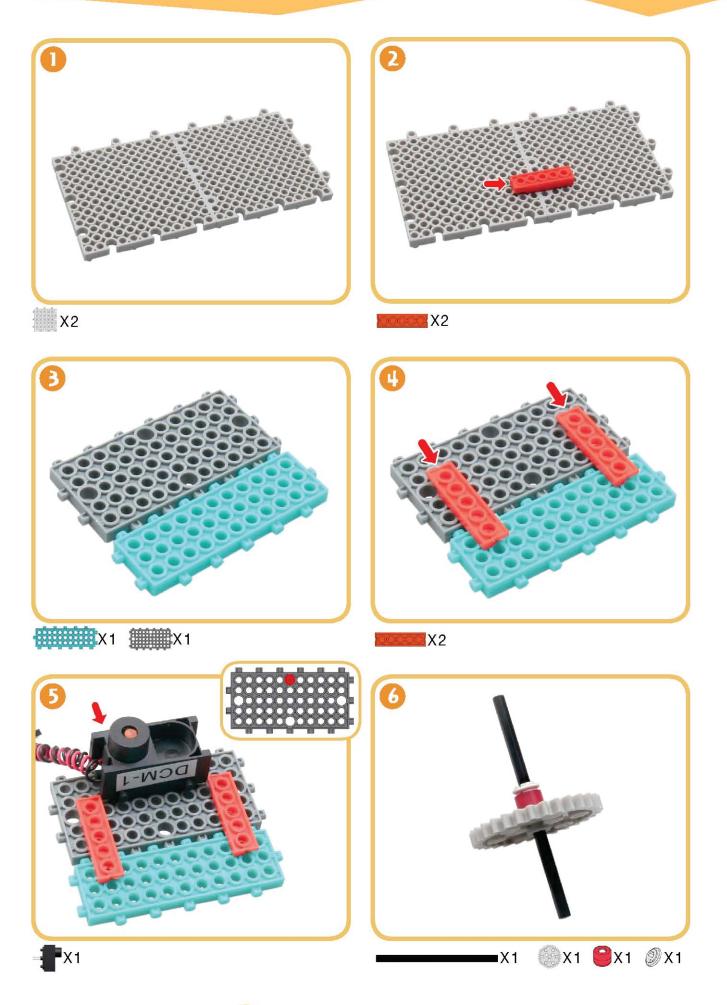


# 3. Spinning Tea Cup



Tea Cup is a chair that can turn from left to right or the other way round.









@X2

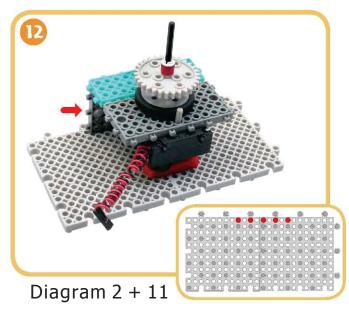


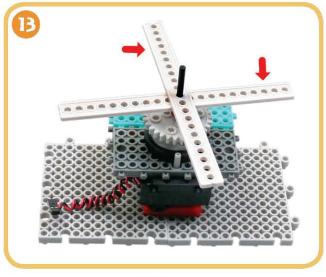


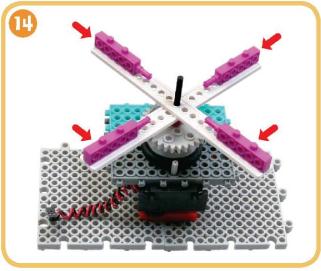
**X**1

Diagram 5 + Diagram 8

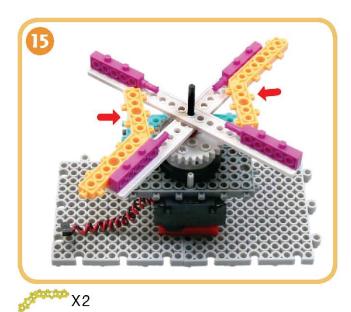








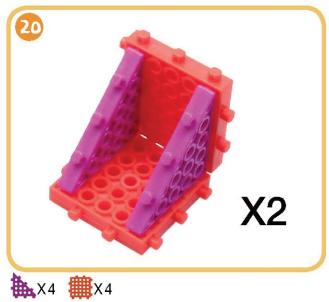






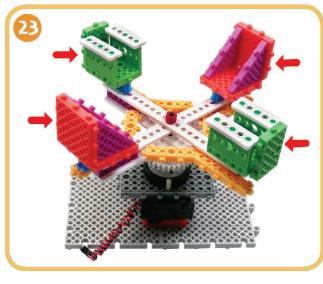












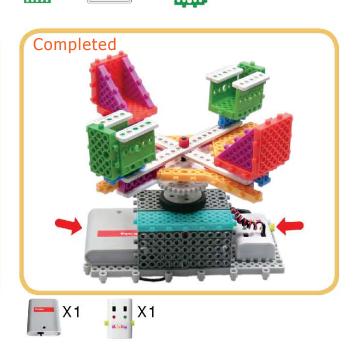


Diagram 19 + 20 +22

### Move the robot **Tea Cup**



- 1. Connect DC motor to Right motor connector.
- 2. Connect battery case to Power connector.



### Move the Tea Cup.



**Press the Mini-board** button and the Tea Cup will go round and round.





There are numbers 1 to 10 on the chairs. Fill in the missing numbers.





# 4. Carousel



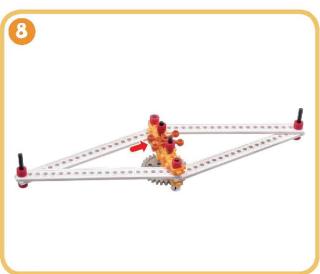
Make the carousel rotate in the air.







Diagram 5 + Diagram 6



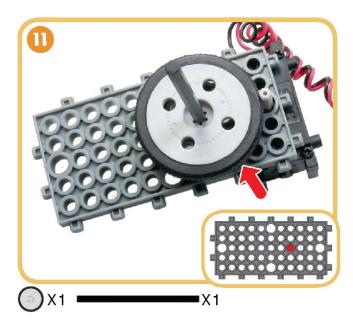




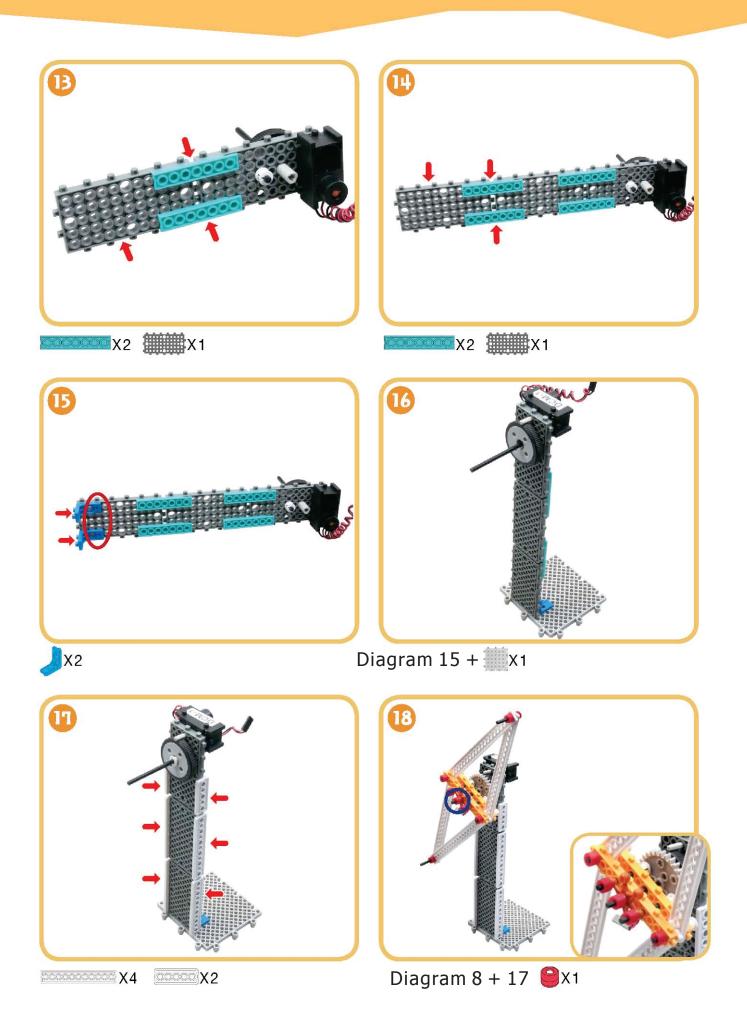














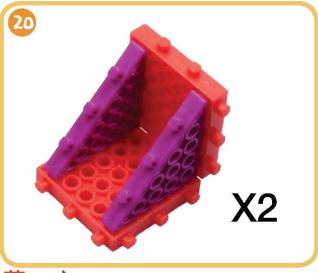








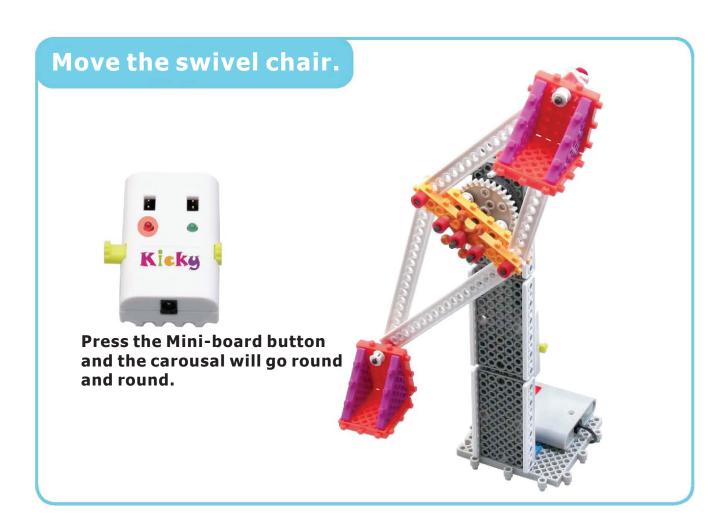
Diagram 18 + 20 @x2 \_ x1

#### Move the robot Carousel



- 1. Connect DC motor to Right motor connector.
- 2. Connect battery case to Power connector.







## Let's do it.

Which picture below has the same rotation as the carousel?





## Game Workshop 2



The windmill is using the natural wind driven by the windmill blades to rotate and generate energy.

Let's take a look at the various windmills and try to create a windmill yourself.



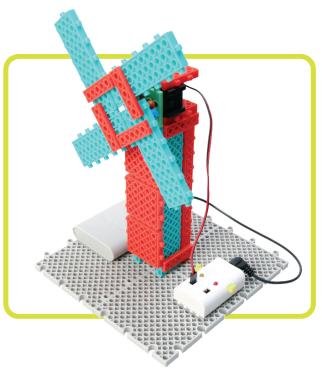
**Irrigation windmill** 



**Generating windmill** 



**Ferris wheel** 



The windmill I assembled!



Activity photos.			
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