Logic

Space

Coding

Focus

Classroom Discipline

01 Please sit down and keep quiet in class.

02 Please raise your hand if you have any questions

03 Please observe carefully when the pictures are played.

Obedient Car

Course Goals

Thinkidea

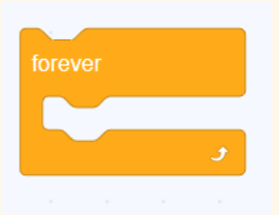
1. Learning goals
2. Project Discussion
3. Logic Programming
4. Have a try
5. Consolidate and extend

1

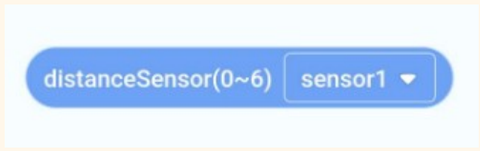
1. Create a car club that will back up when the car encounters an obstacle.
2. Consolidate modules such as “**motor counterclockwise**”、“**showText**”、“**say**”.
3. Learn new modules such as “**if... then...**”、“**Operators <**”、“**Sense**”.
4. Comprehensively apply the learned modules to complete programming projects and expand.

1

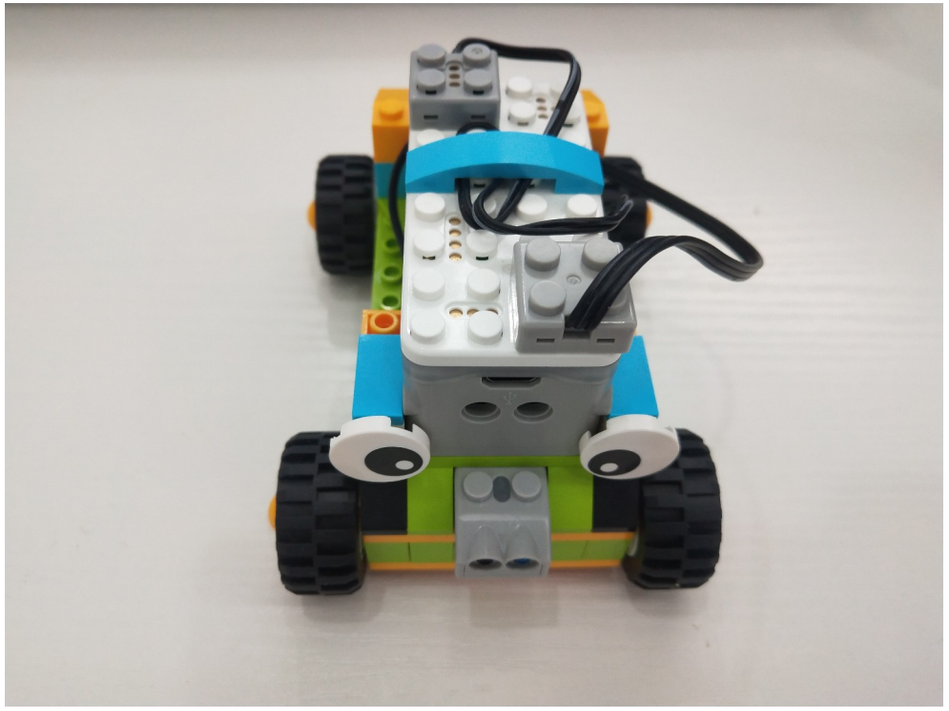
Consolidate modules:



New modules:



2



Project Discussion

1.Let the car turn on the green light and go forward.

2.Let the car make a sound when it sees an obstacle.

3.Let the car go back for 2 seconds.

4.Turn on green light to go forward.

5.Repeat.

3

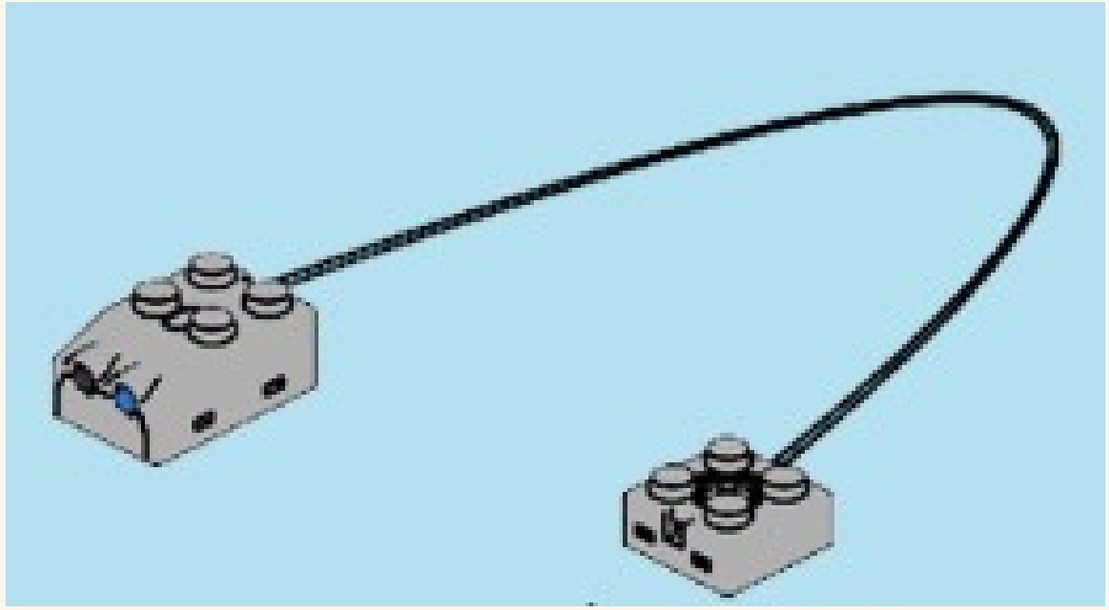
1.Let the car turn on the green light and go forward.

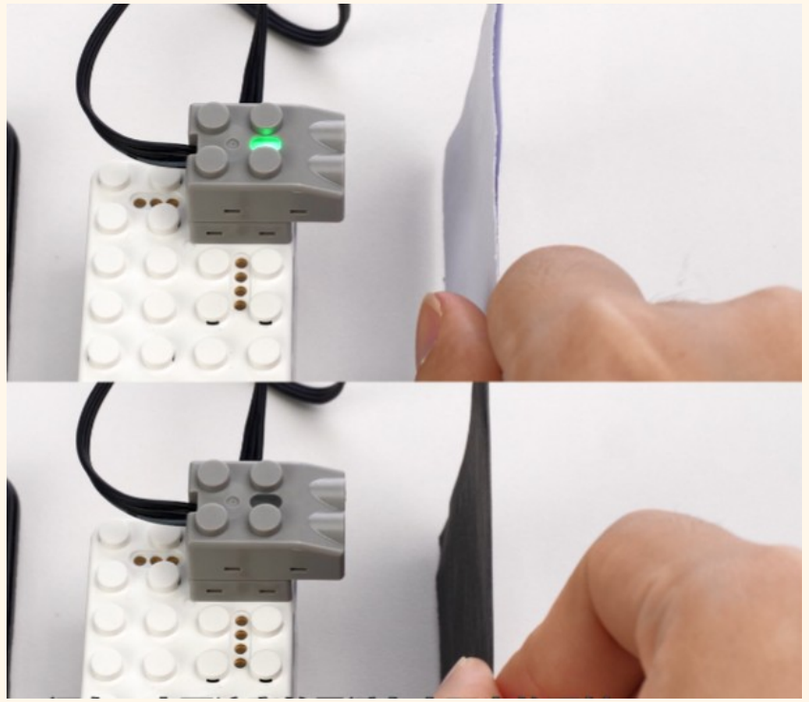
1.Consolidate the knowledge learned in the previous lesson

Use the modules learned in the last lesson to make the car turn on the green light and move forward

3

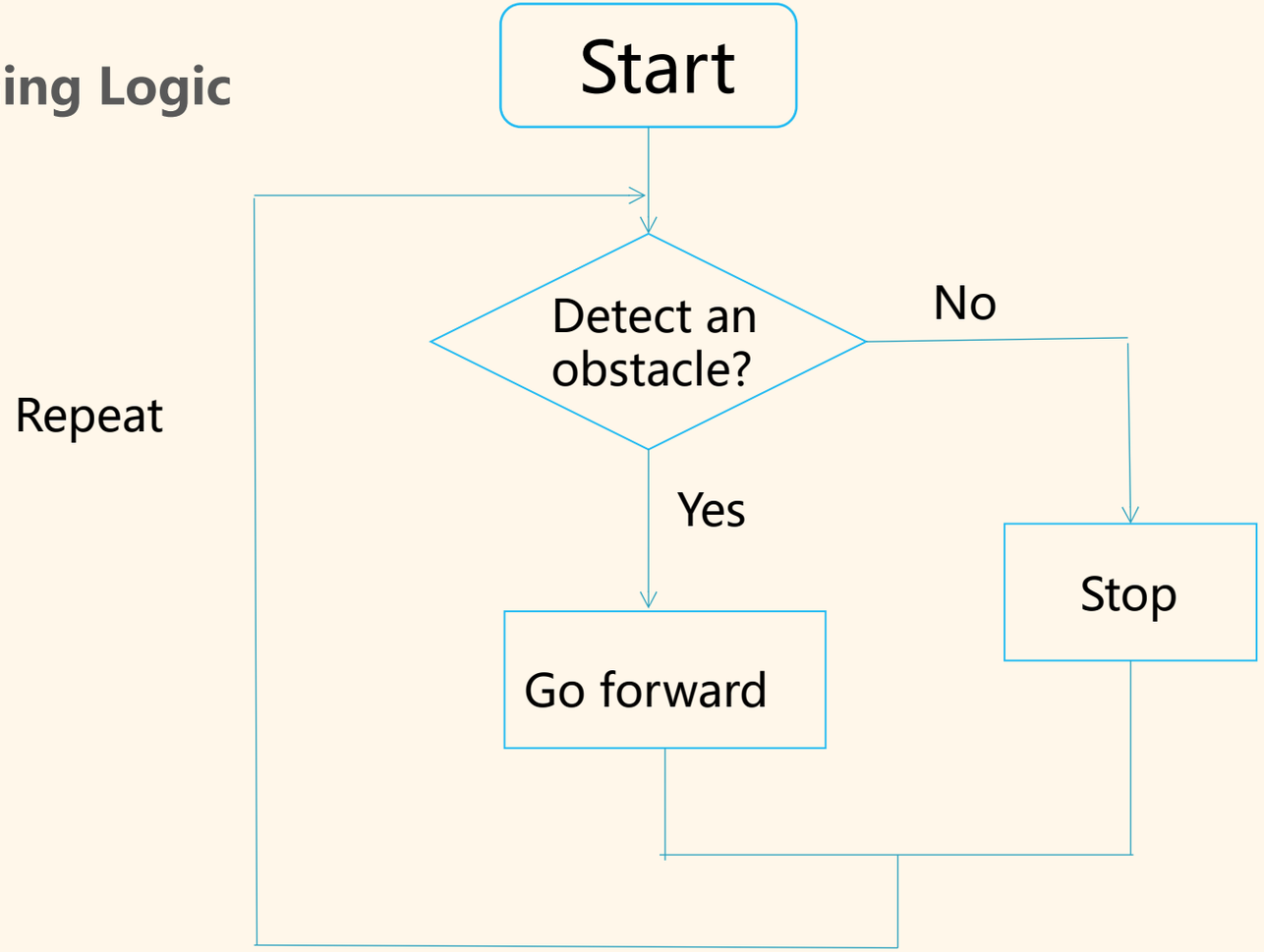
1.Understanding the Hardware





Infrared distance sensor (uses the principle of infrared light to determine the distance of obstacles in front)

1.Programming Logic

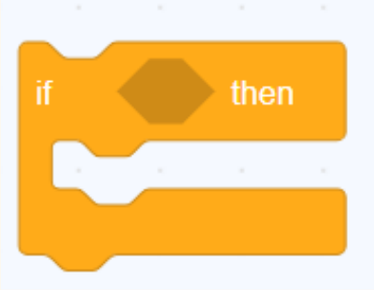


3

1.Learn the Identification of obstacle

1.Learn “if... then...”

1 : No meal



hungry

If I have no meal, I will be hungry.

2 : Got 0 points on the test

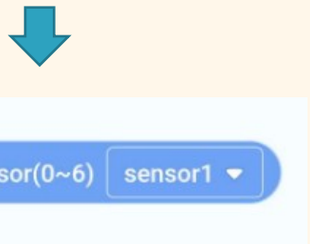
Be criticized by my mother when I get home.

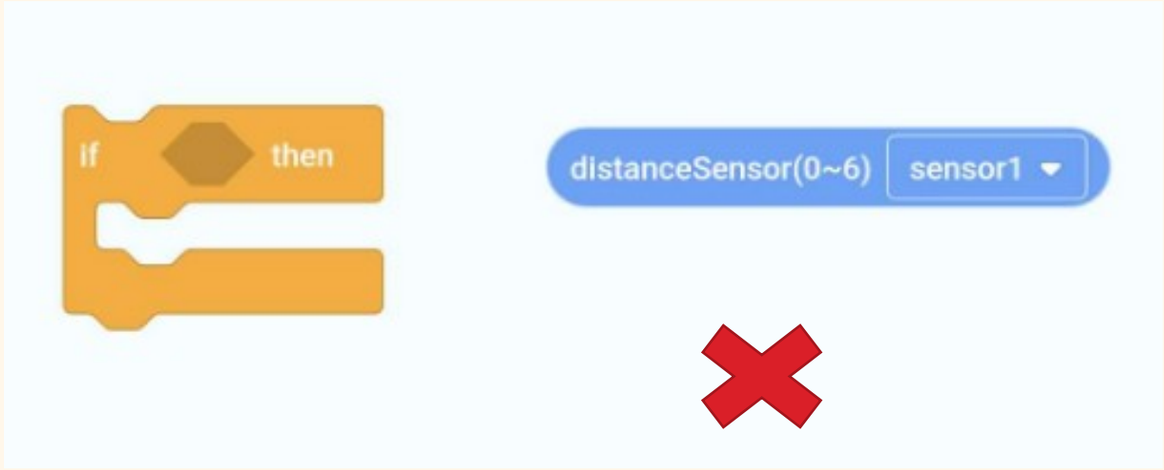
If I get 0 points on the test, my mother will criticize me when I get home.

3

1.Identifying obstacles

1.Learn how to judge

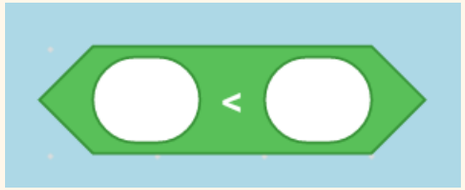


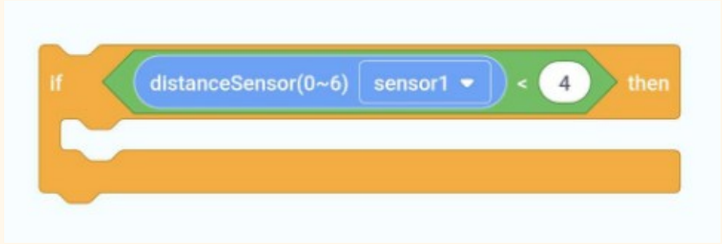


3

1.Let the car turn on the green light and move forward for 3 seconds

1.Learn how to judge

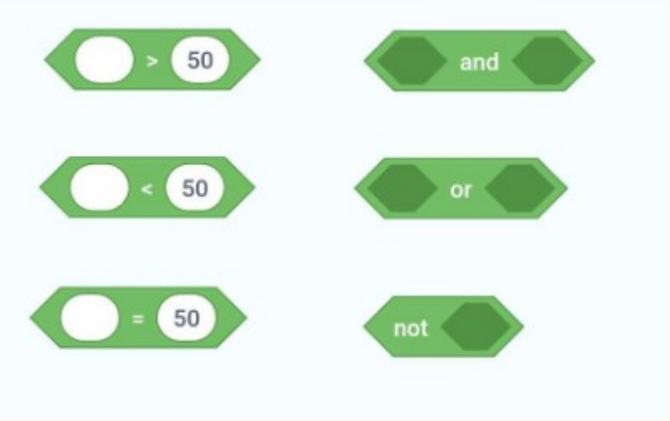




Use the conditional comparison block to check which side's value is greater or smaller.

Judge the program block and determine which side of the space has a larger value or a smaller value.

2.Judgment symbol

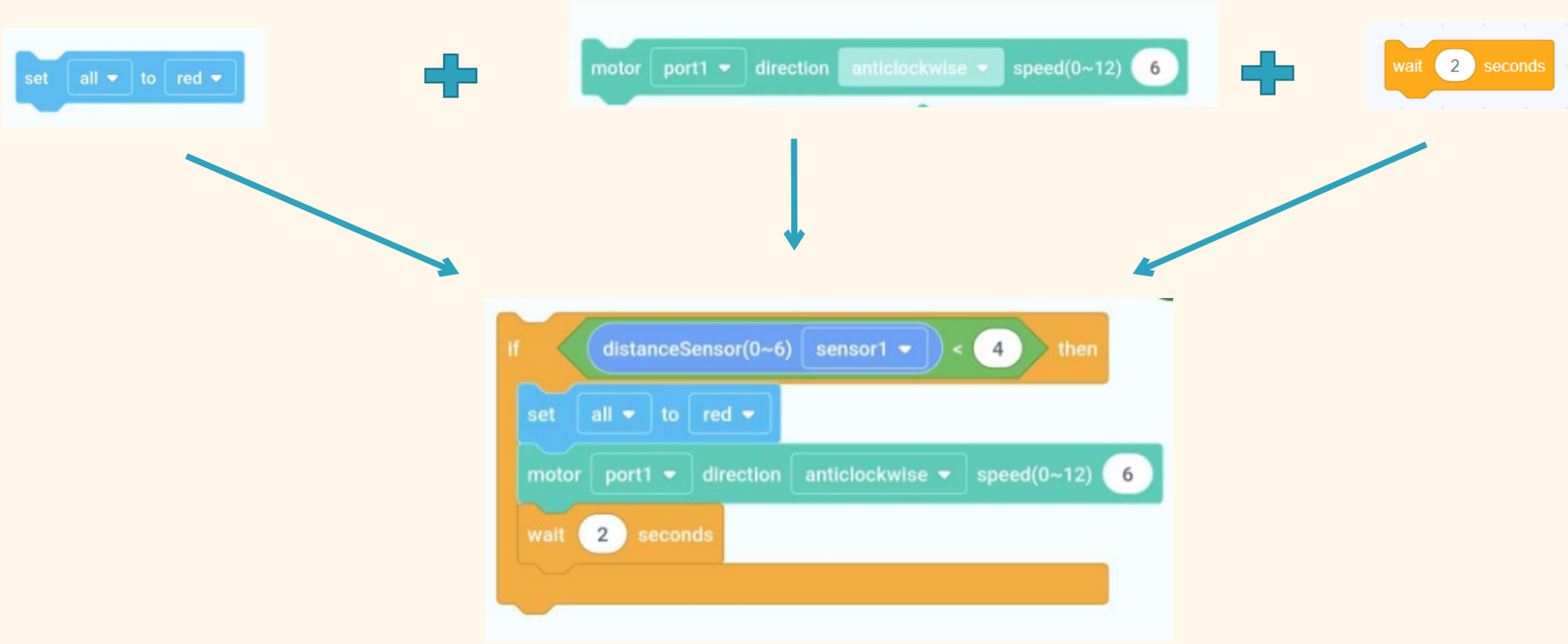


Choose the corresponding programming module according to different situations!

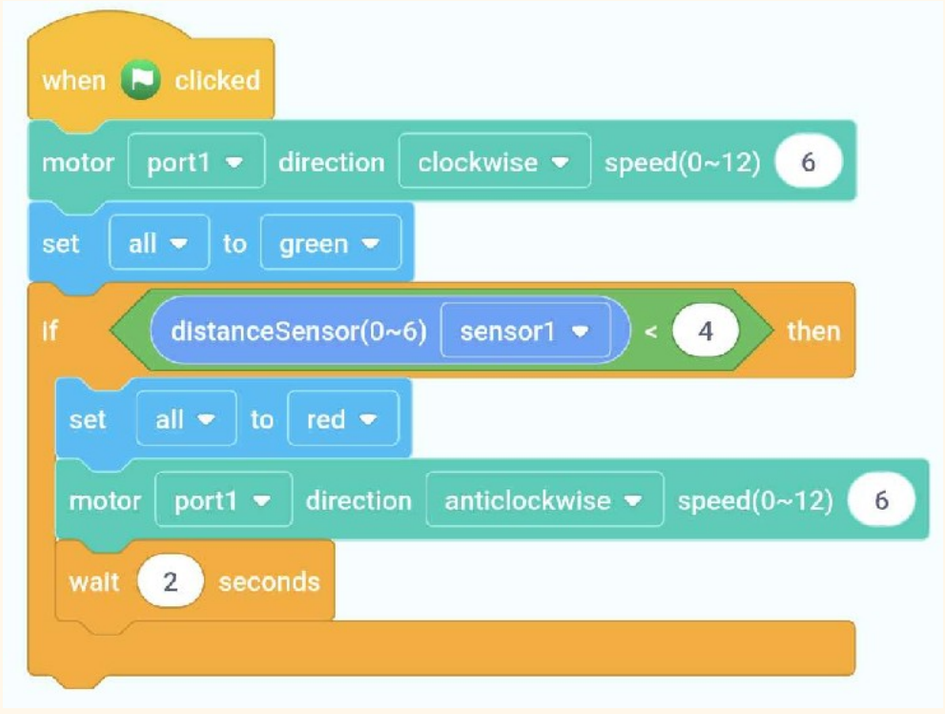
3

1.Let the car back up for two seconds when it sees an obstacle and the red light turns on

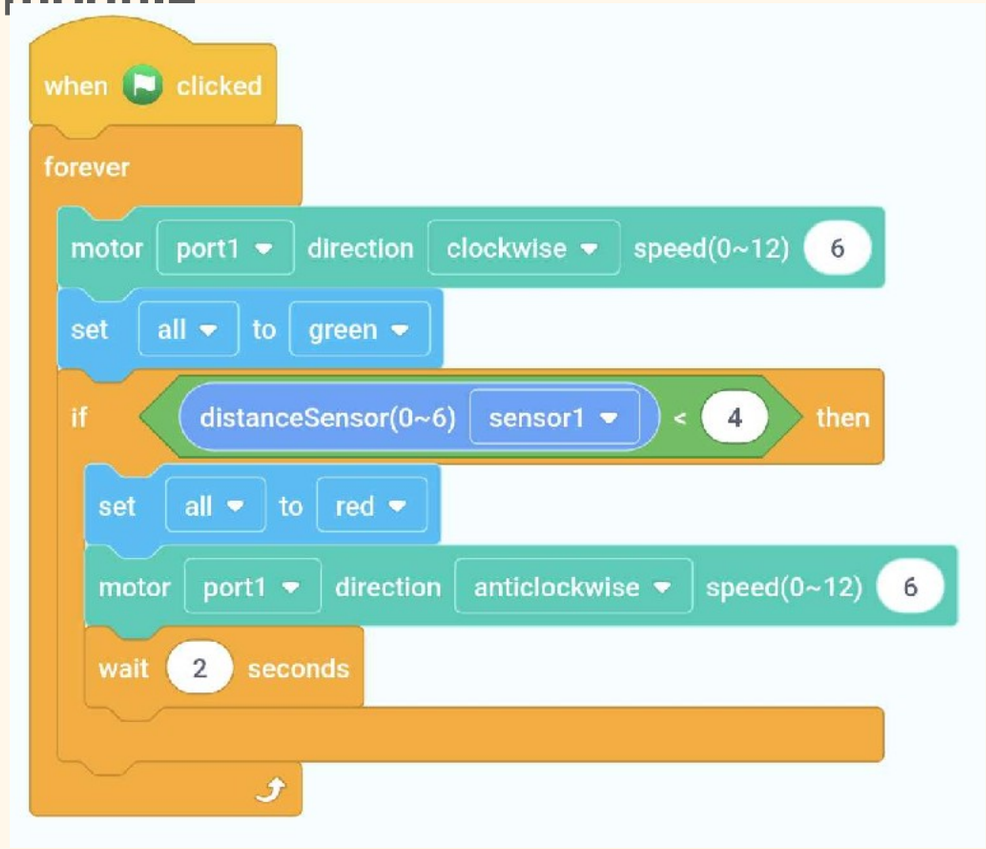
1.Judgment Logic



1.Have a try!



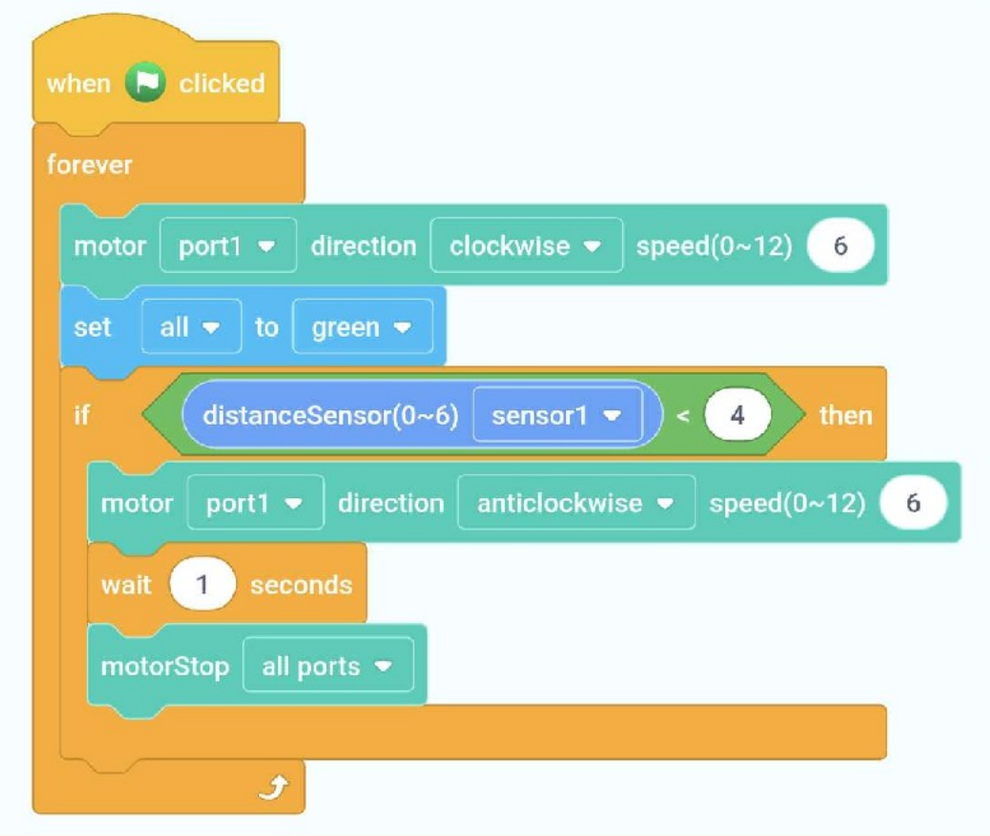
2.Don’ t forget the “repeat” module



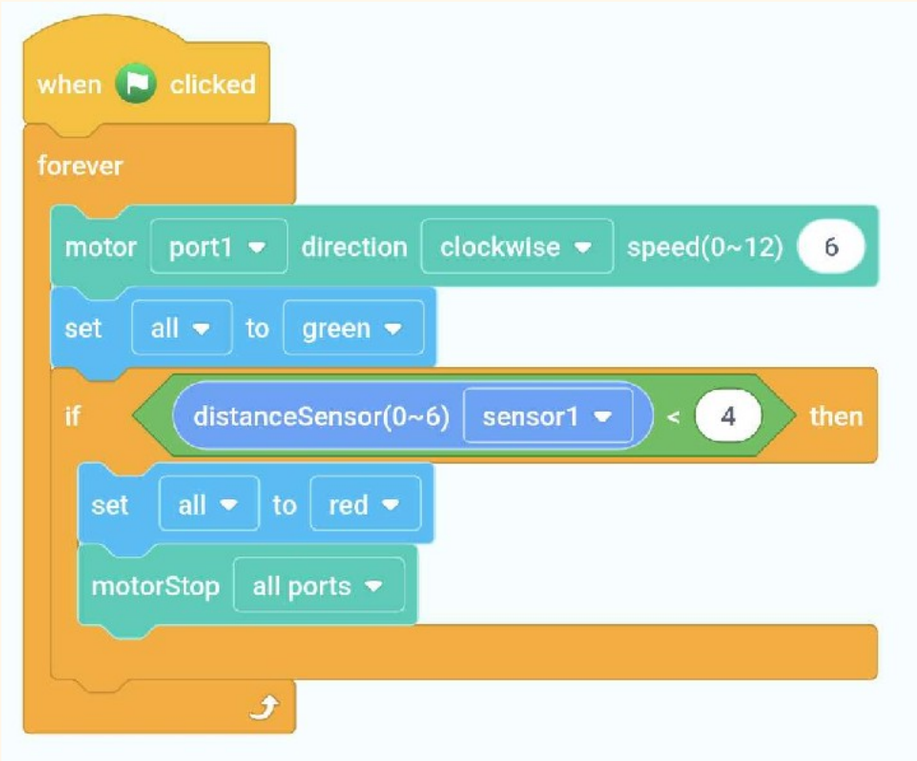
4

1.Have a try

Task 1: When the infrared sensor senses something, the car will move back for 1 second and then stop.



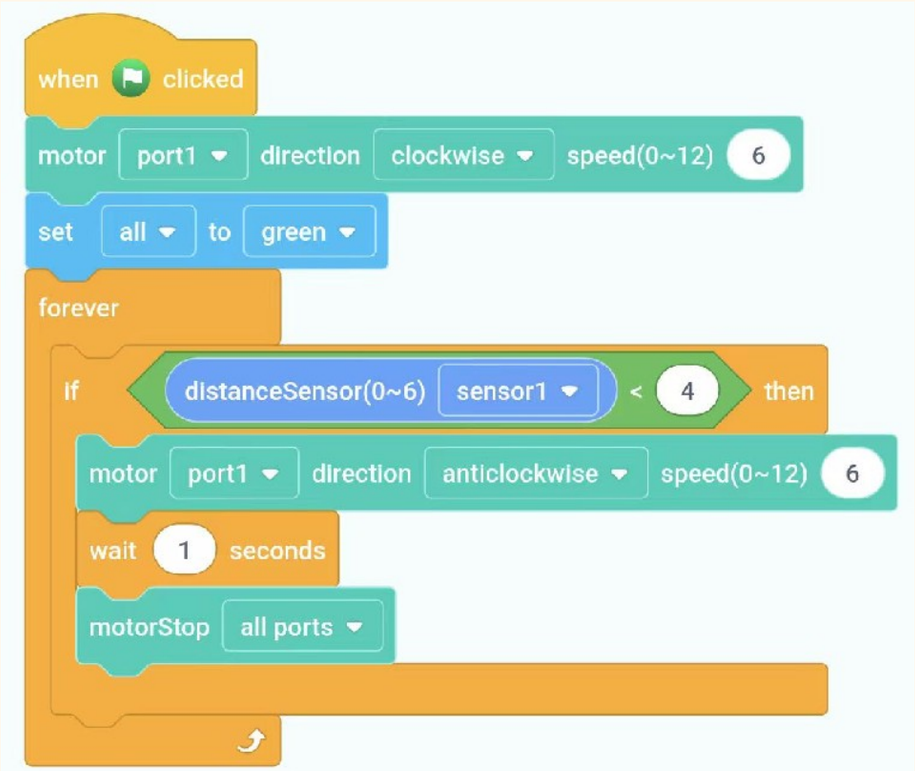
Task 2: When the infrared sensor senses something, the car will turn on the red light and stops running.



Consolidate and extend

Q & A

Q1 : Alex wrote a program for the car but it was only executed once. What happened?



A1 : Because the previous two modules are not placed in the "repeat" module.

5

Knowledge Review

(1)

"If" module, "if... then" is a commonly used logic module, usually used with repeated execution scripts

(2)

Judge the program block and determine which side of the space has a larger value or a smaller value.

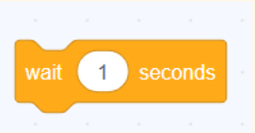
5

Knowledge Review

(3)

Distance sensor module.

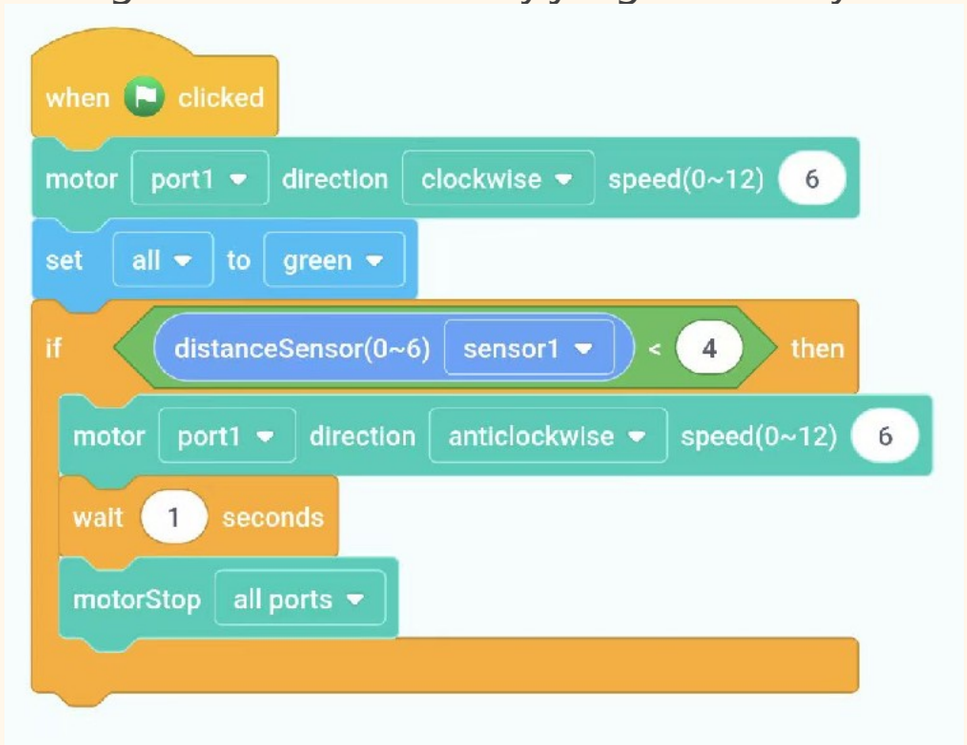
(4)



The programs are executed sequentially, with a waiting time interval between two programs.

5

Alex wrote such a program for the car, but the car just keeps moving forward without any judgment. Why is that? （ ）

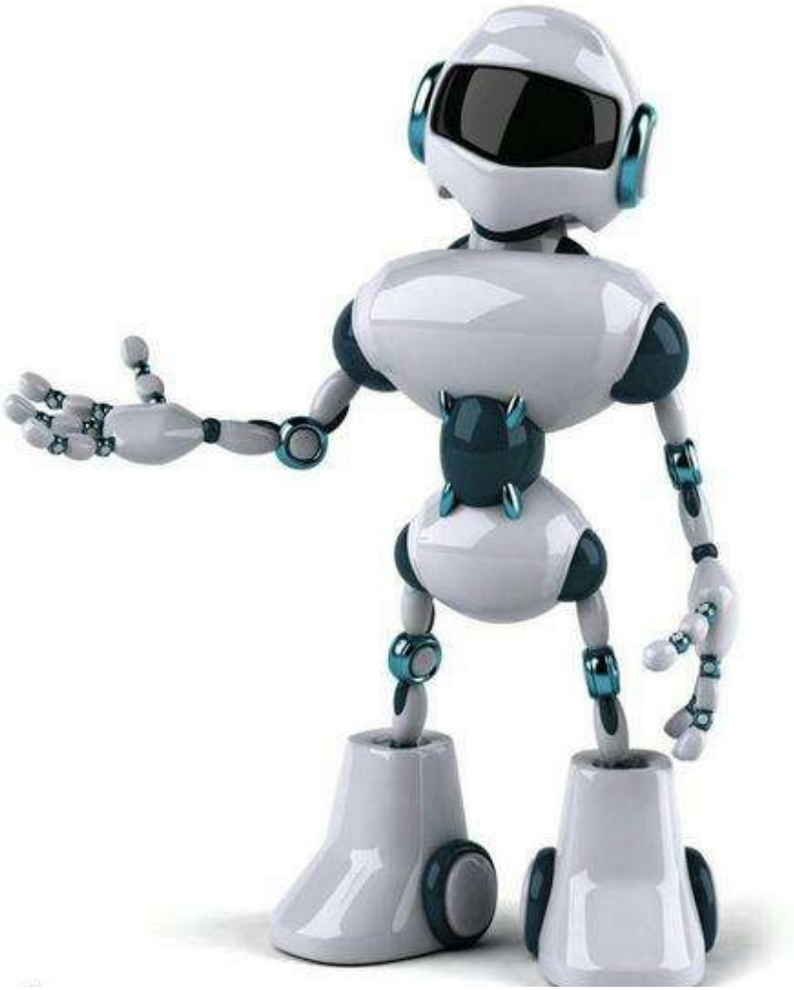


A The time setting is wrong

B The direction of the motor is set wrong

C Alex is lazy

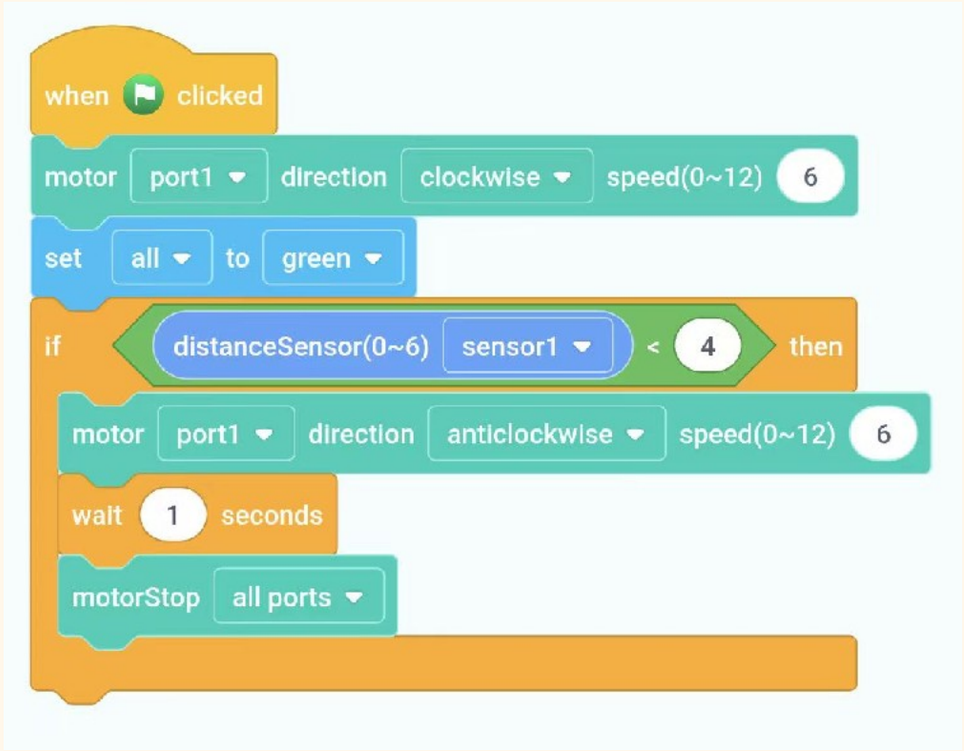
D No add the “repeat” module

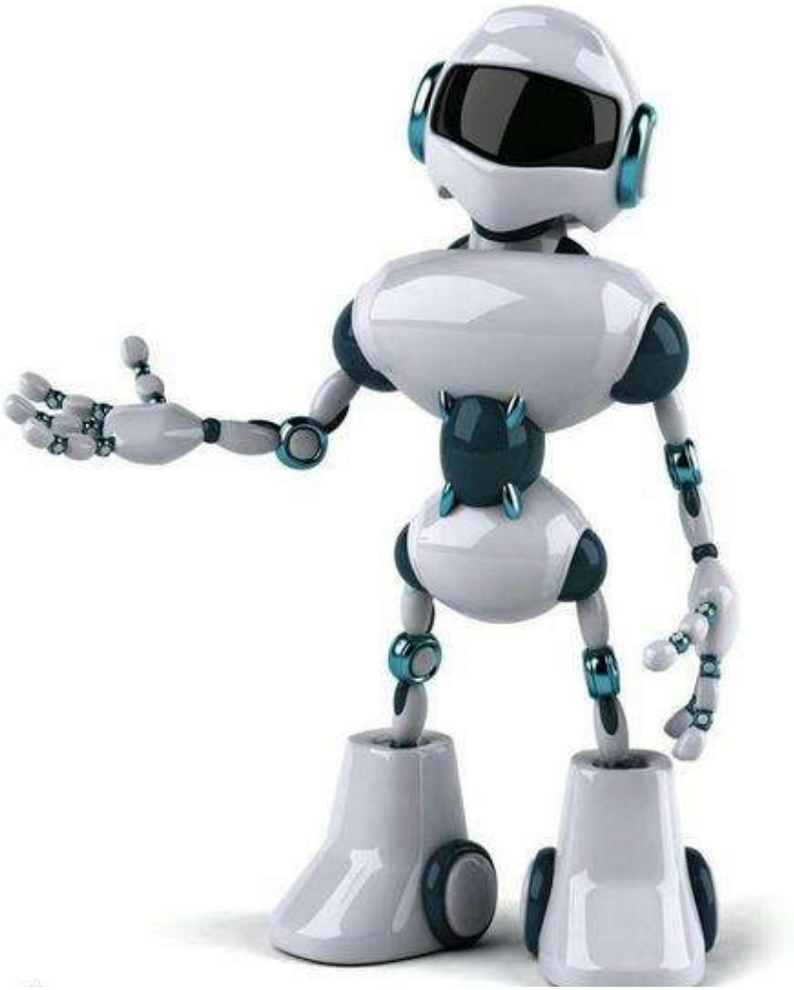


5

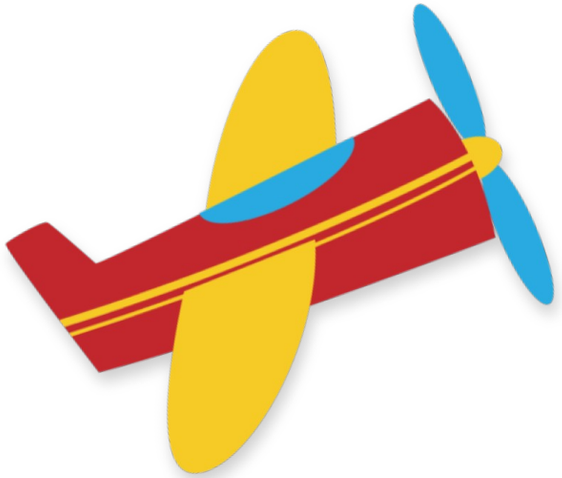
Answer : **D**

Analysis : **Because there is no “repeat” module added.**





Talk



THANKS