Logic

Space

Coding

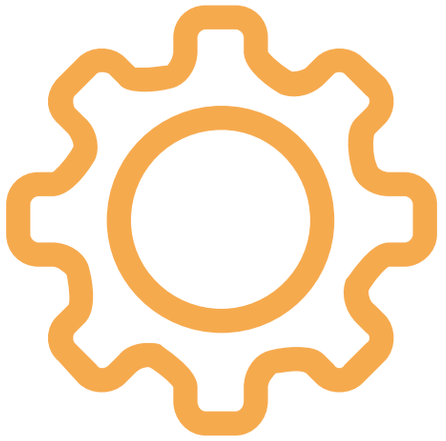
Focus

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.



Intelligent Car

Course Goals

Thinkidea

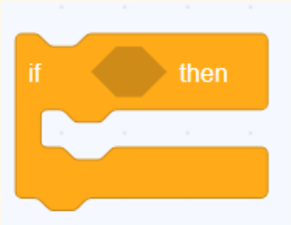
1. Learning goals
2. Project Discussion
3. Logic Programming
4. Have a try
5. Consolidate and extend

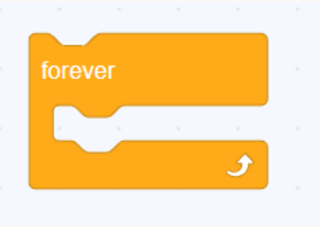
1

1. Build a car club where the car automatically reverses when it reaches the edge of the table.
2. Consolidate modules such as “**if...then...**” 、 “**Operators <**” 、 “**Sense**”.
3. Learn new modules such as “**if...then...else...**” 、 “**light**”.
4. Comprehensively apply the learned modules to complete programming projects and expand.

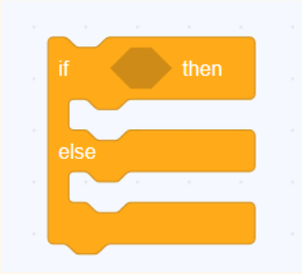
1

Consolidate modules:

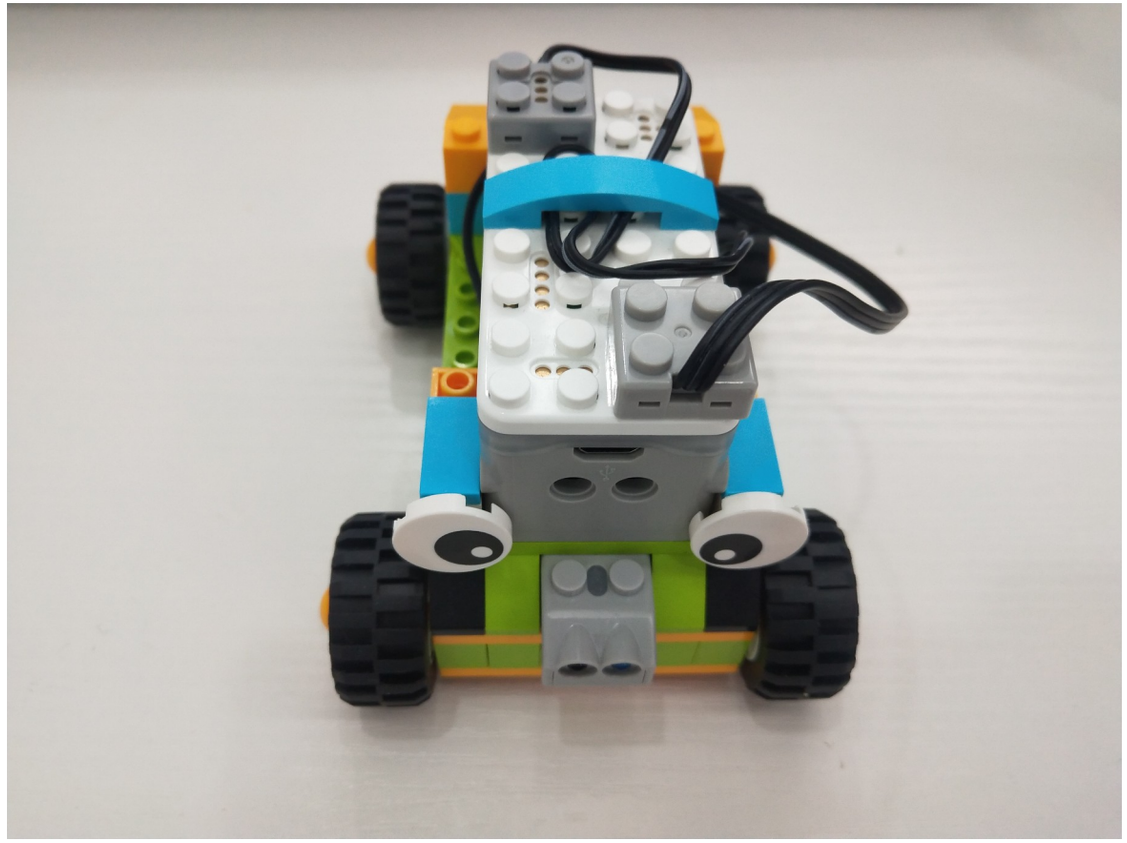




New modules:



2



Project Discussion

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

2.Let the car turn on the red light when it reaches the edge of the table.

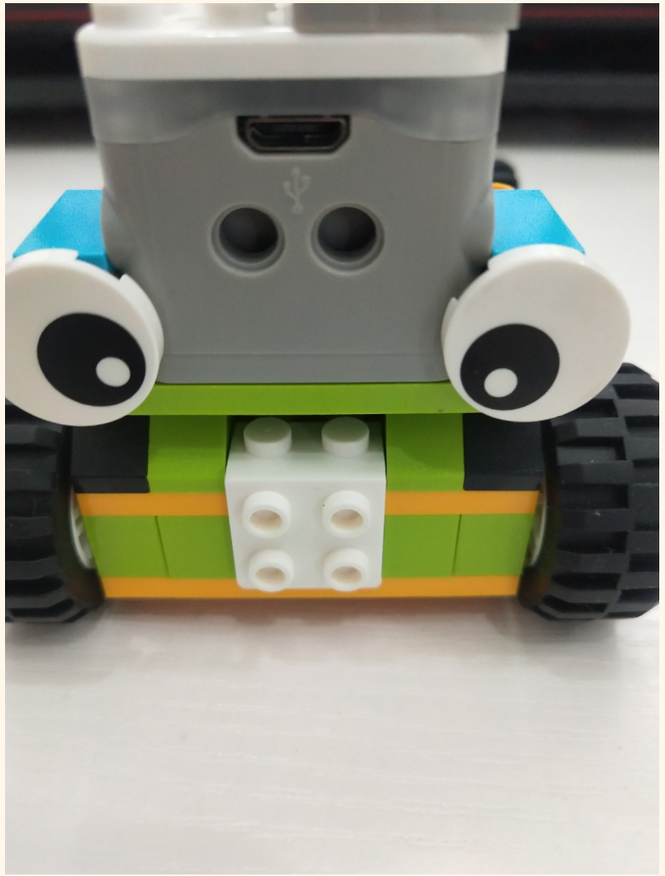
3.Let the car move backward.

4.Let the car turn on the green light and keep moving forward.

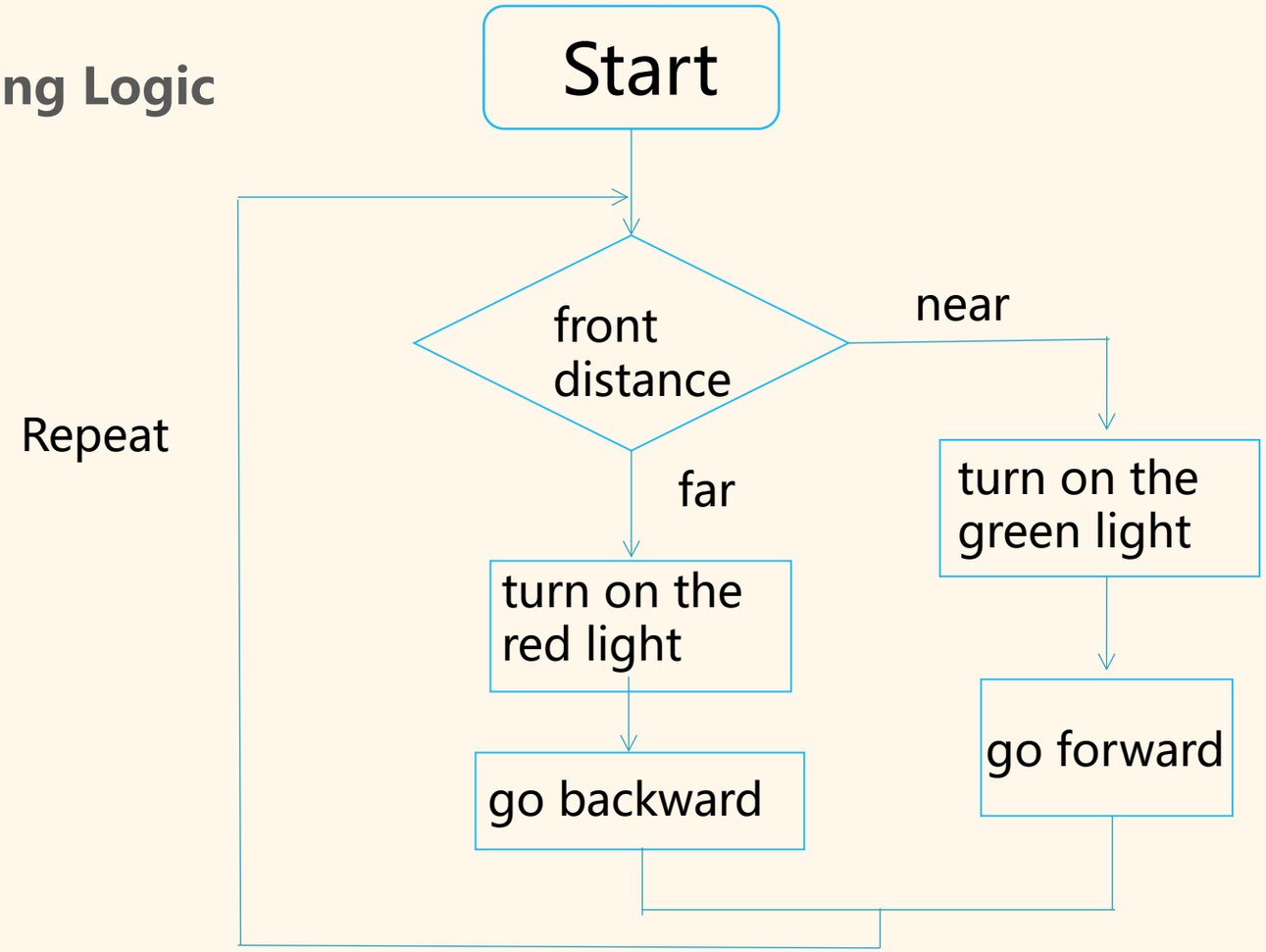
5.Repeat.

2

Let’s modify the car first!



1.Programming Logic

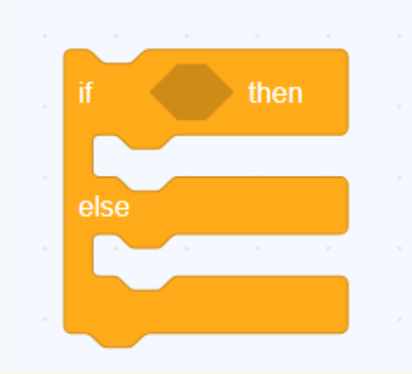


3

1.Learning obstacle detection.

1.Learn “if... then...”

Example 1 : Rainy

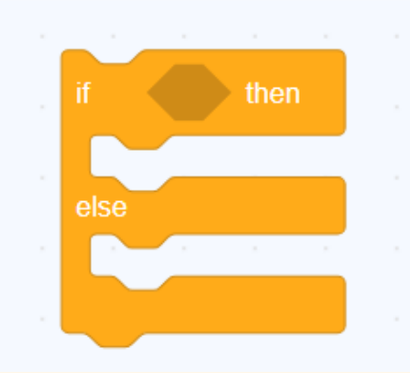


Hold an umbrella

Will get wet.

If it rains, then hold an umbrella; otherwise, you’ ll get wet.

Example 2 : The weather is getting cold.



Keep warm

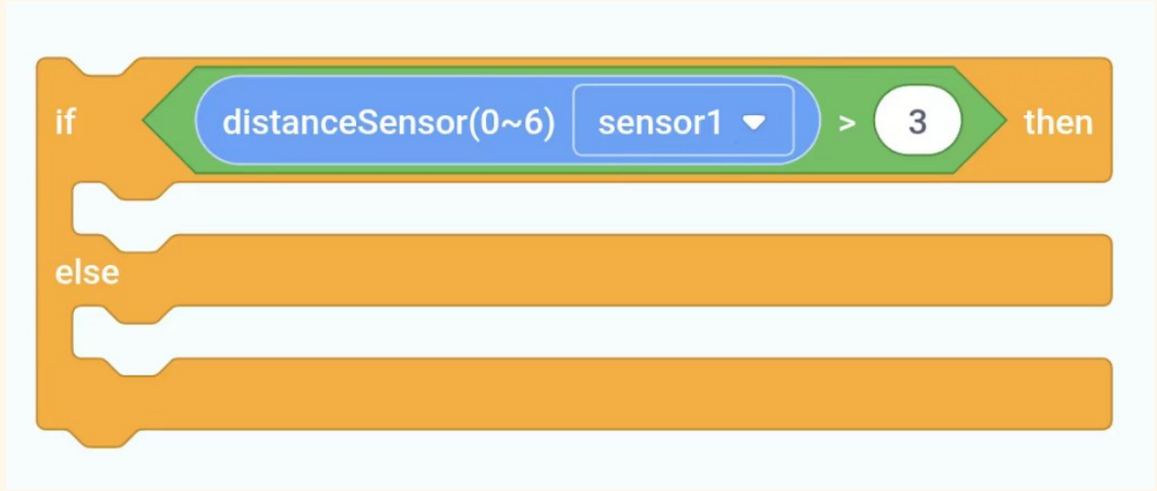
Will catch a cold.

If the weather gets cool, then be sure to keep warm; otherwise, you might catch a cold.

3

1.Identifying obstacles

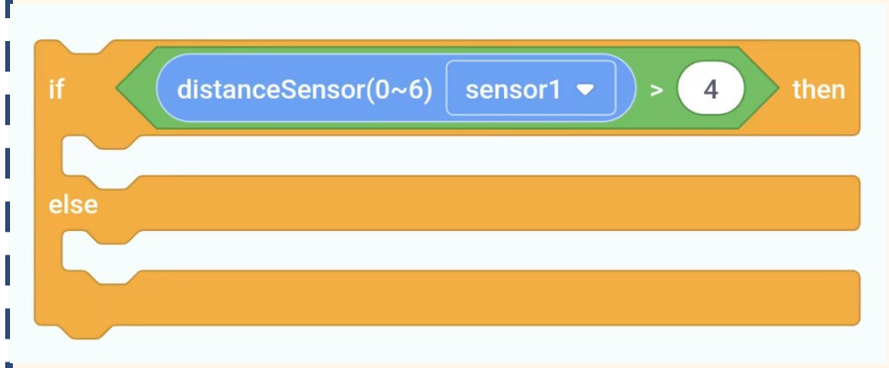
1.Learn how to judge

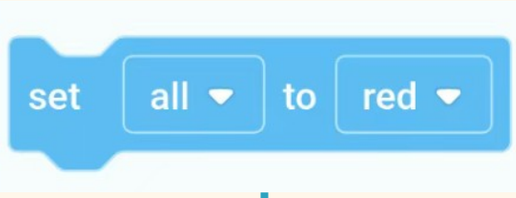


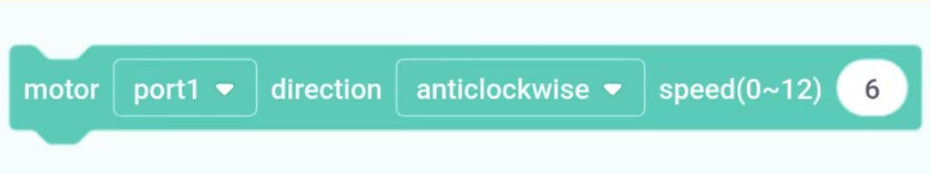
What should we do when the value is greater than 3?

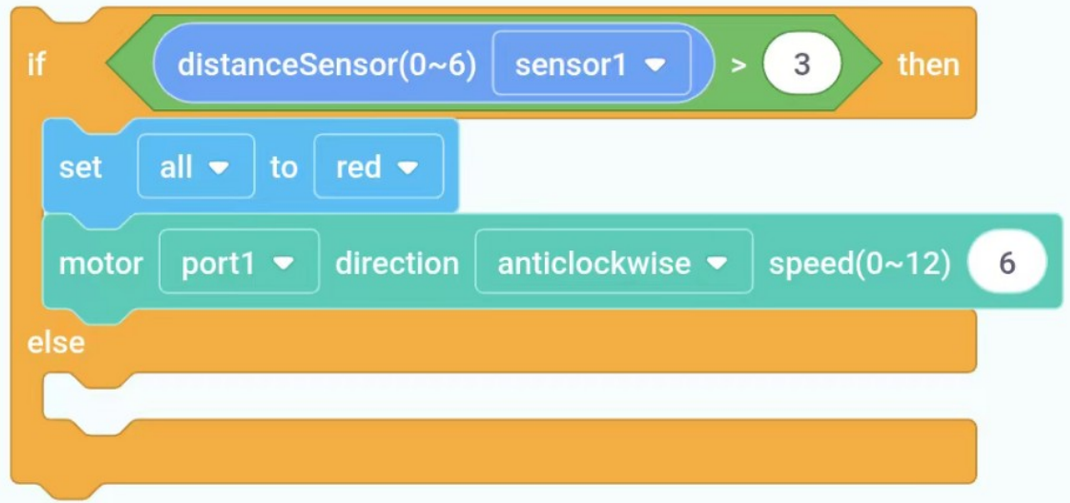
3

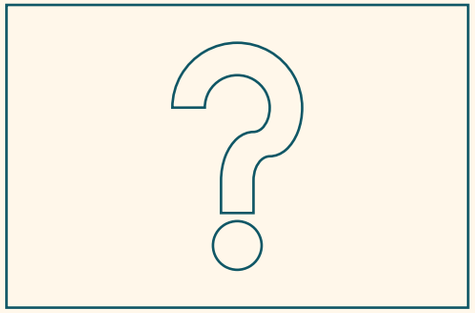
1.Move backward when the distance is far.





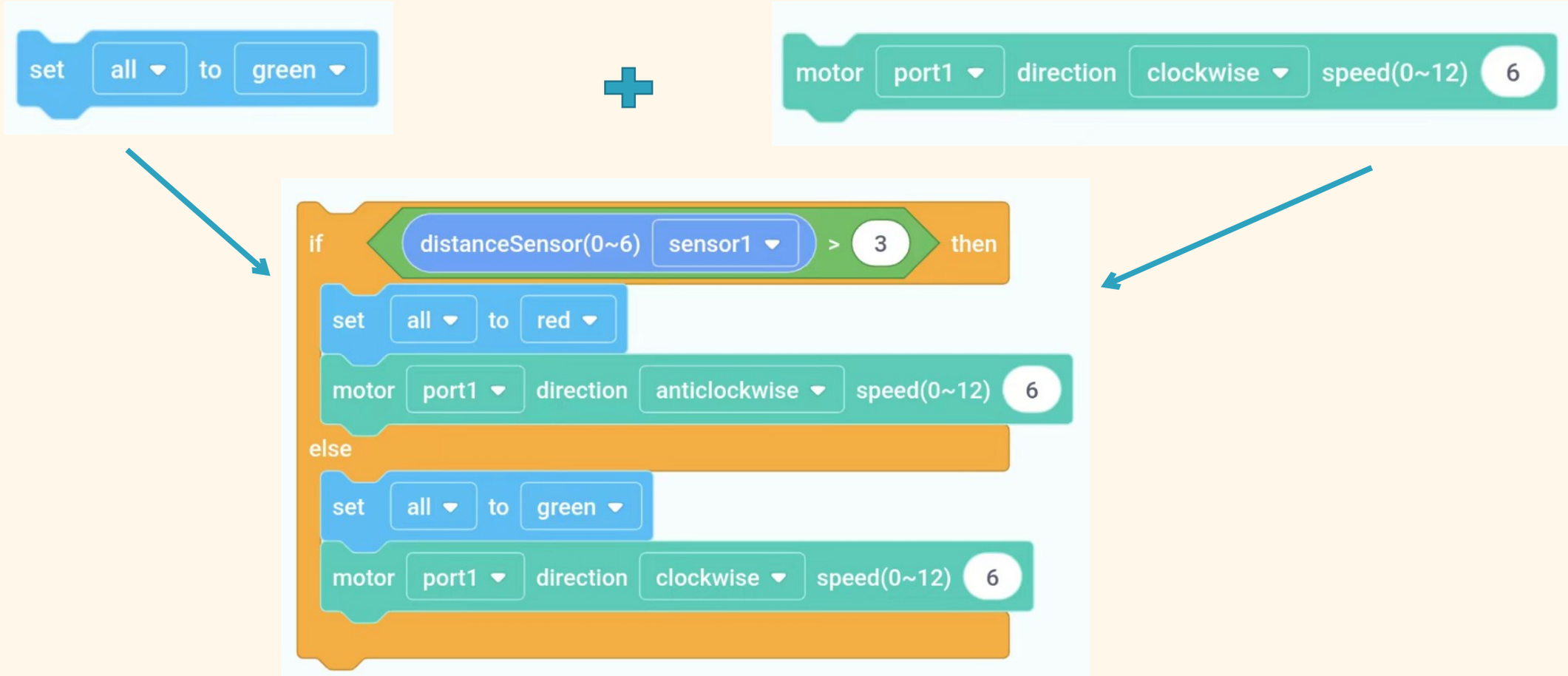




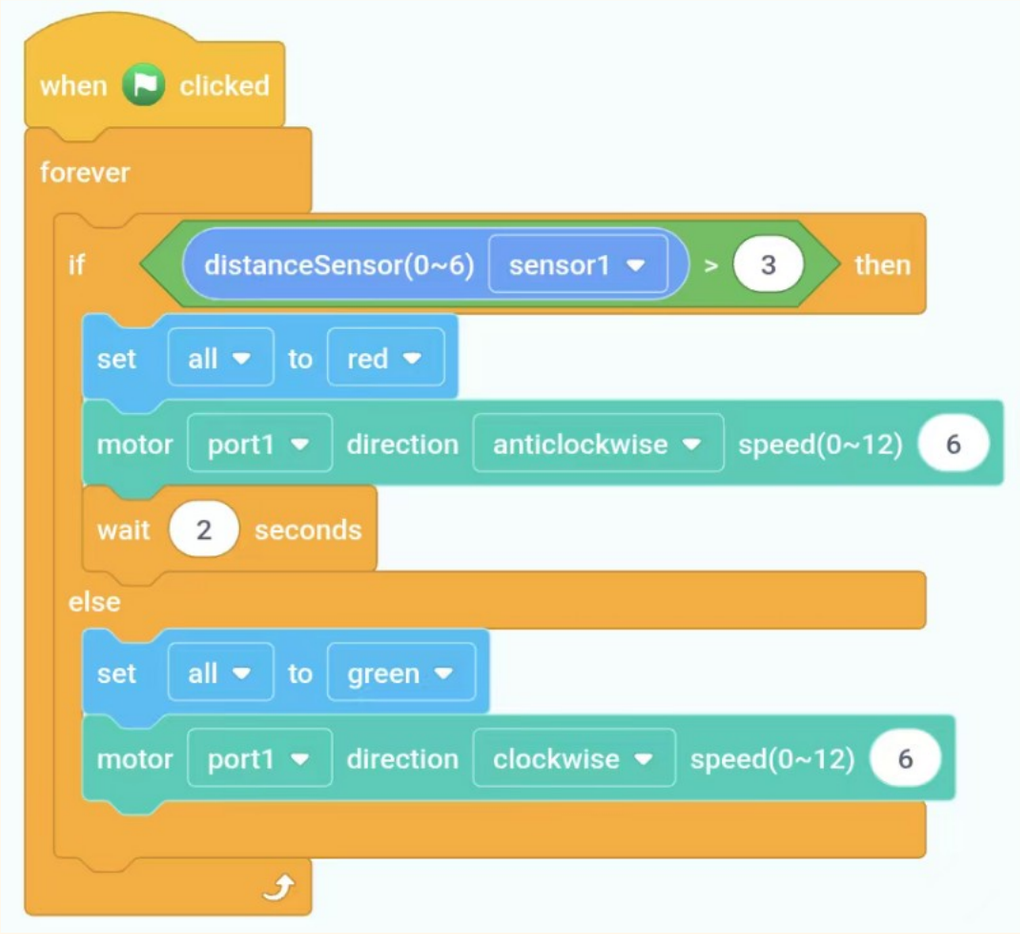


1.Move forward when the distance is close.

1.Judgment Logic



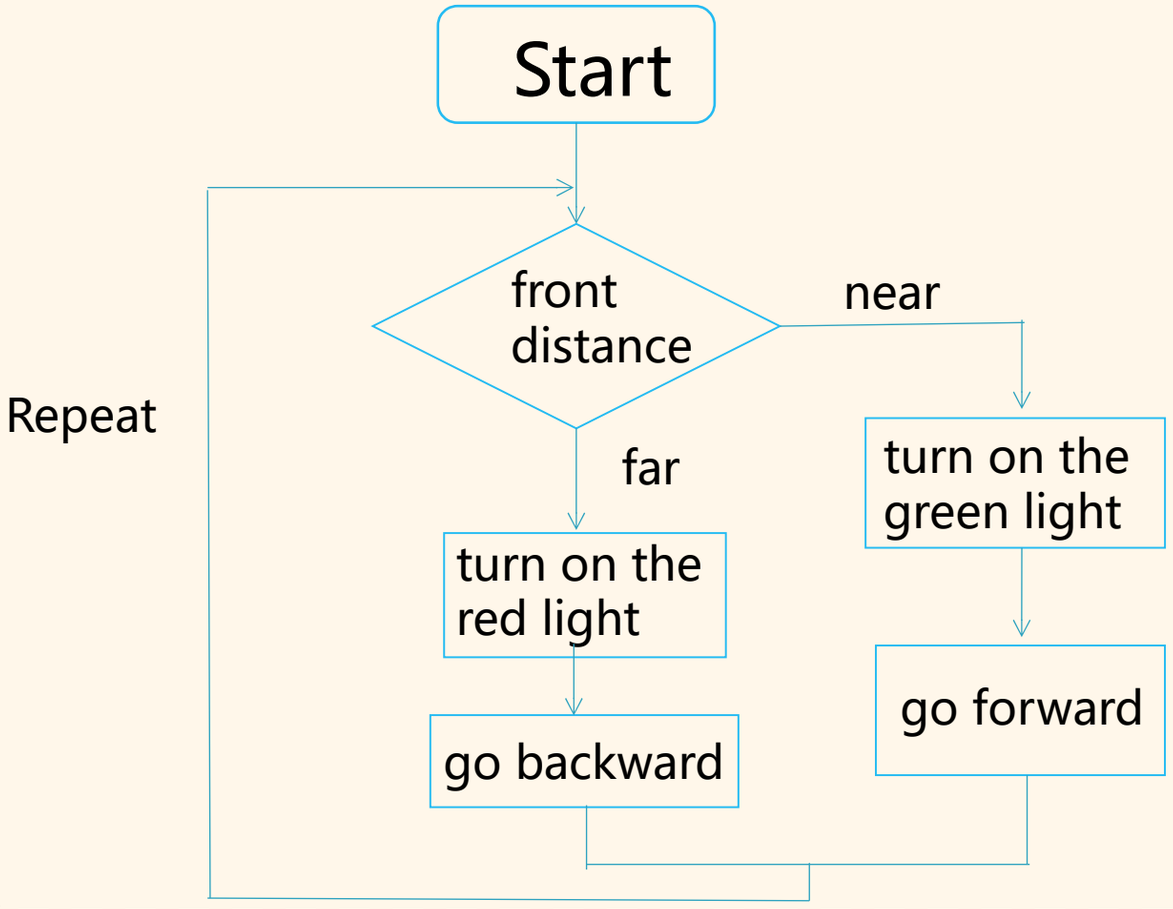
1.Don’ t forget the “repeat” module!

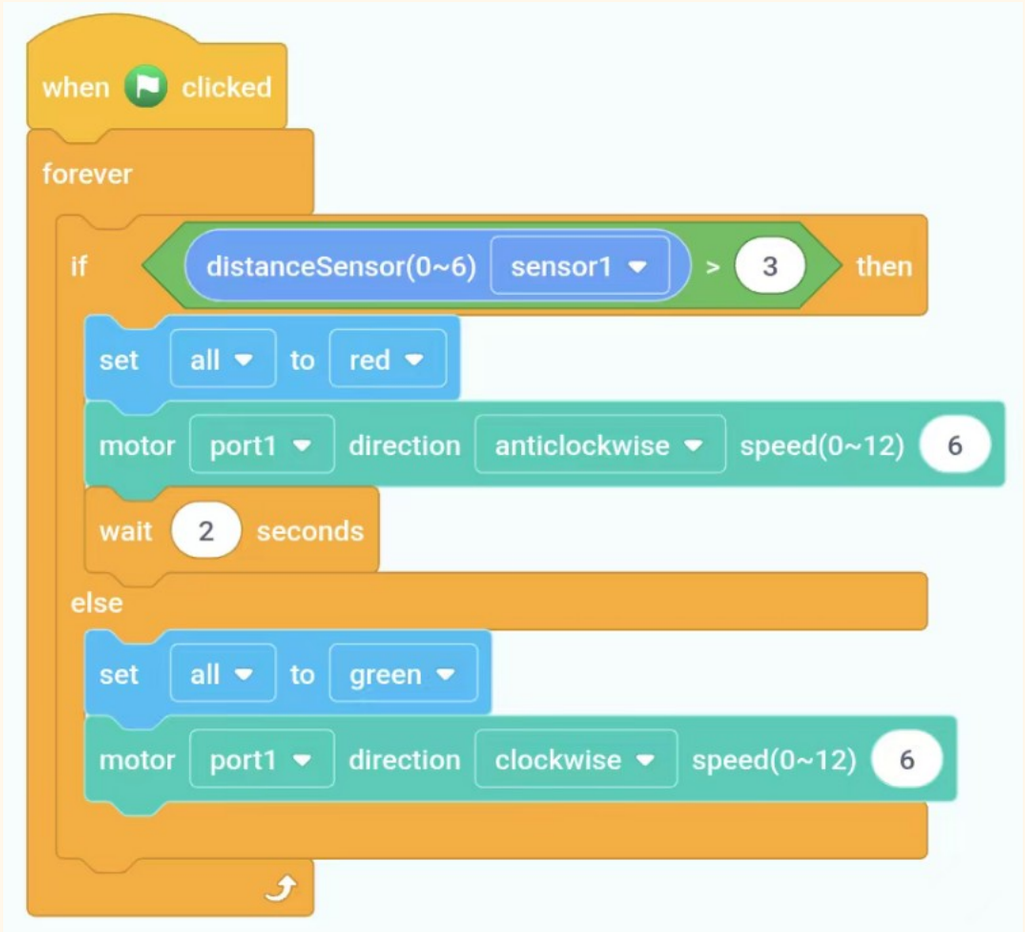


4

1.Have a try

Task 1: Place the infrared sensor at the back of the car and write down your programming idea!



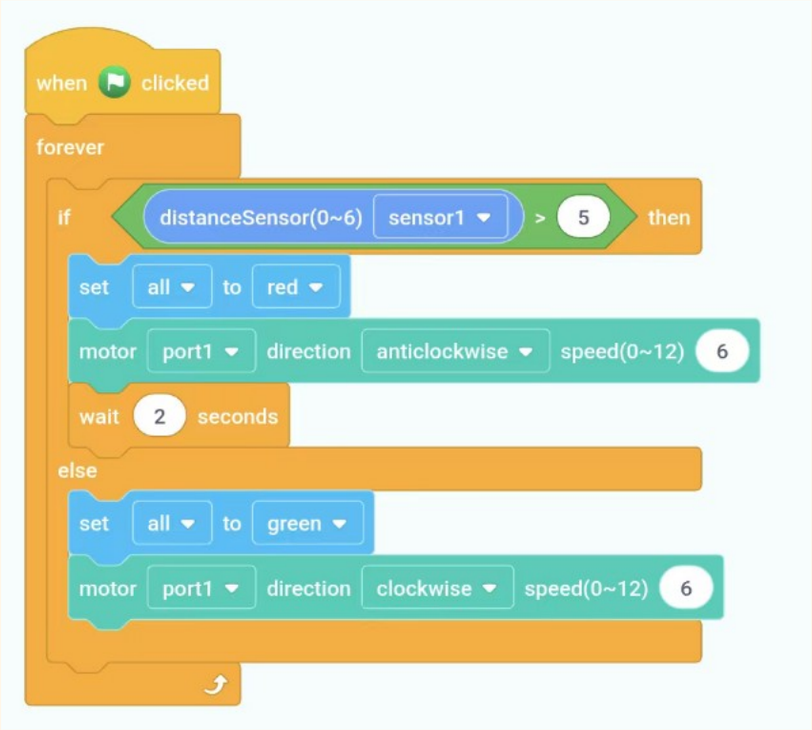


5

Consolidate and extend

Q &
A

Q1 : Alex wrote a program for the car but it keeps moving backward. What happened?

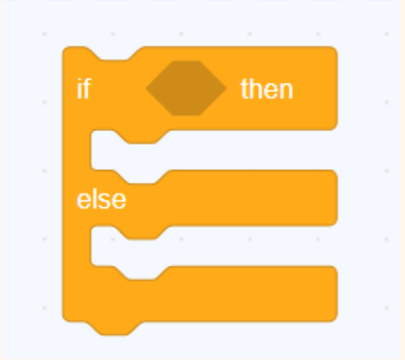


A1 : Because the sensor value is too high.

5

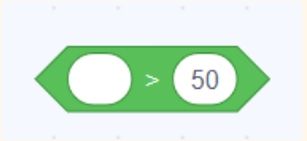
Knowledge Review

(1)



The “If” command — “if...then...else” — is a commonly used logic script, usually used together with a repeat (loop) script.

(2)



Use the Comparison block to check which side has the larger or smaller value between the two spaces.

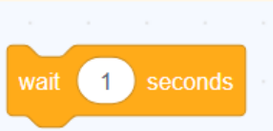
5

Knowledge Review

(3)

Distance sensor module.

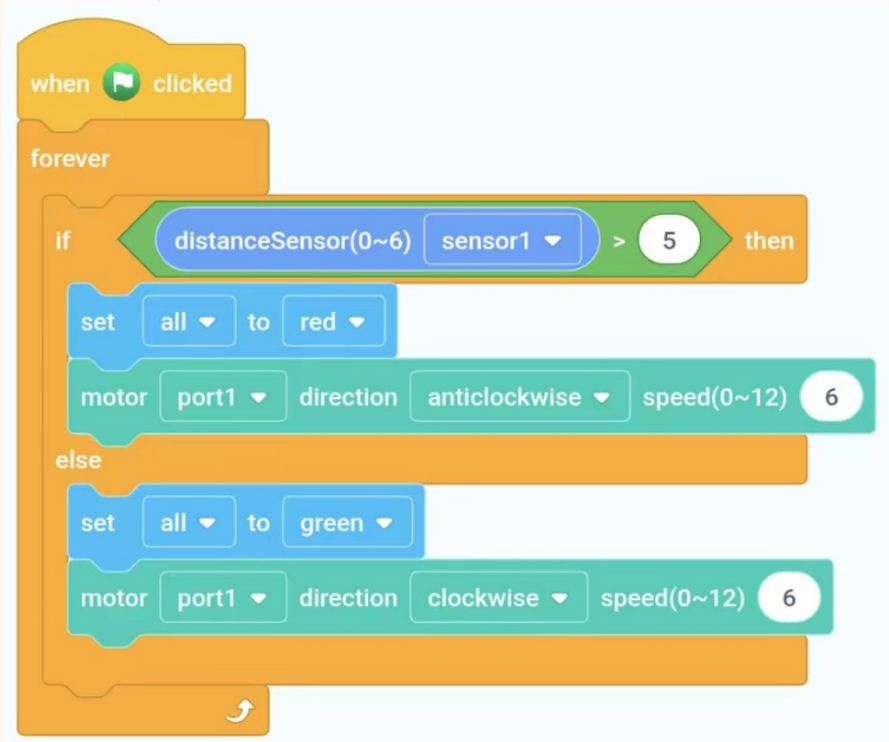
(4)



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

5

Alex wrote such a program for the car, the sensor is in front of the car, but it keeps moving backward when it detects a long distance. Why is that? ( )



A The backward time was not set.

B The motor direction was set incorrectly.

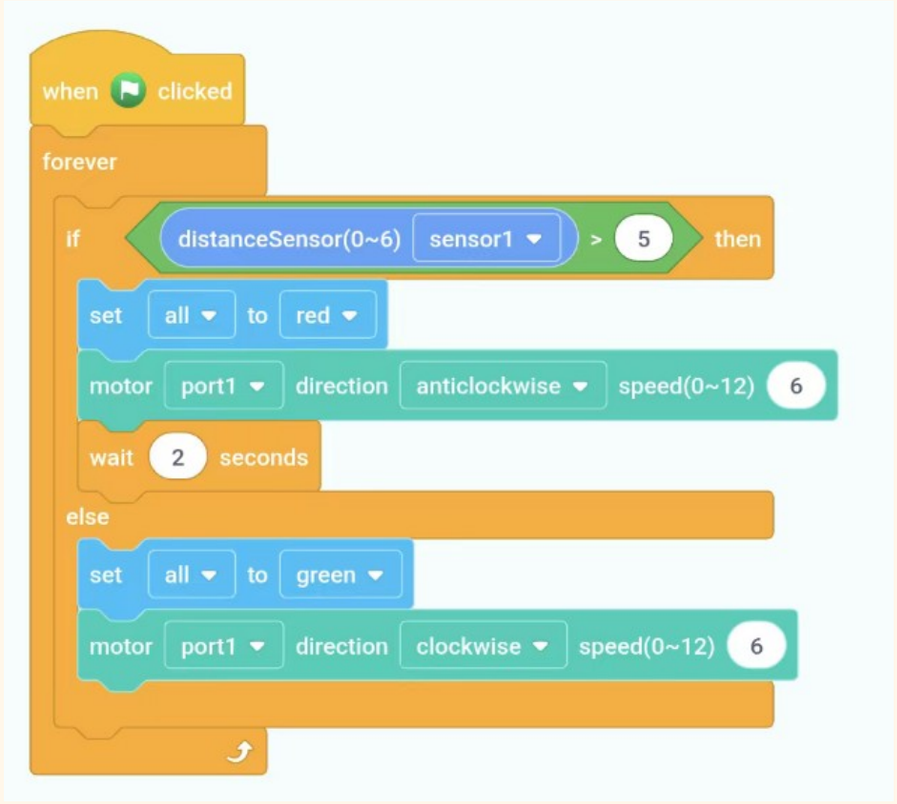
C The sensor is broken.

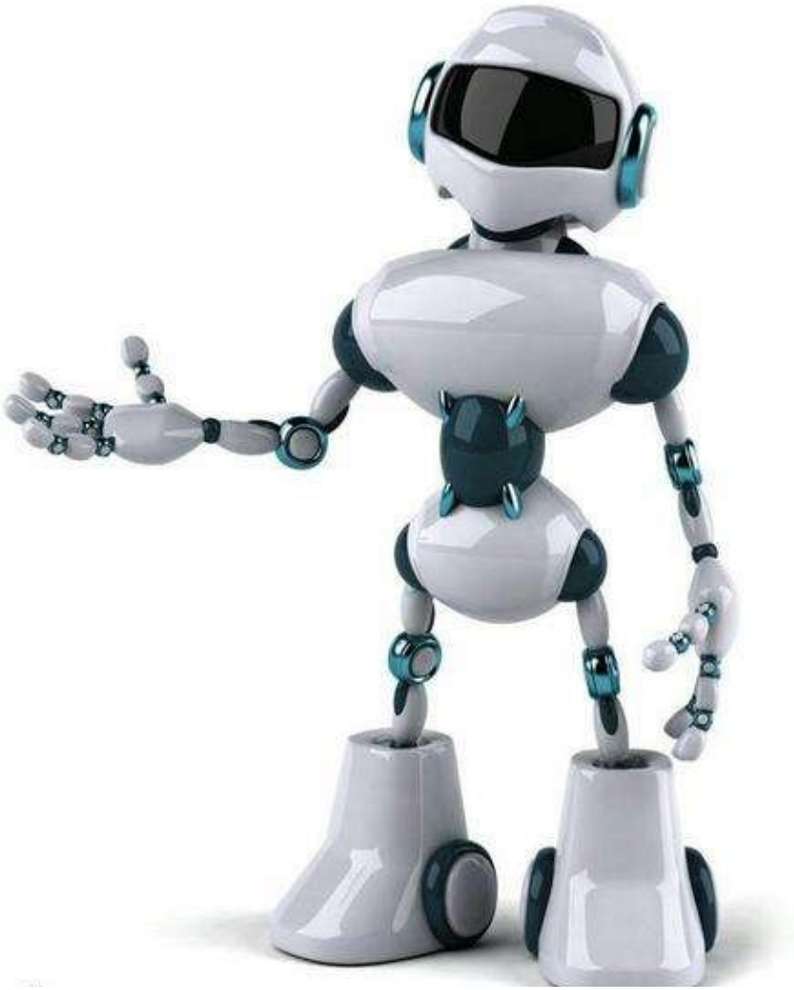
D Because added the "forever" module.

5

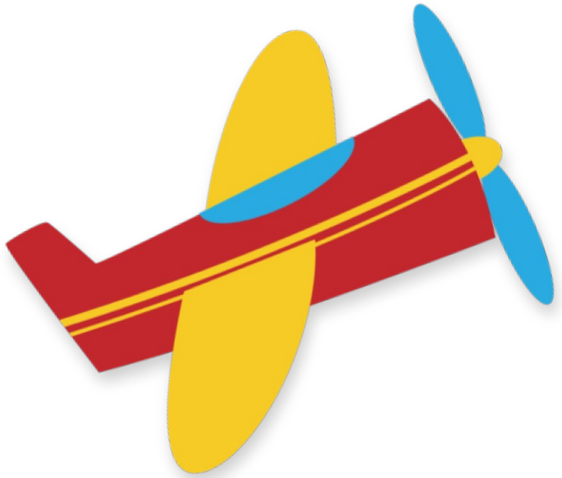
Answer : **A**

Analysis : **Because the backward time was not set.**





Talk



THANKS