Logic

Space

Coding

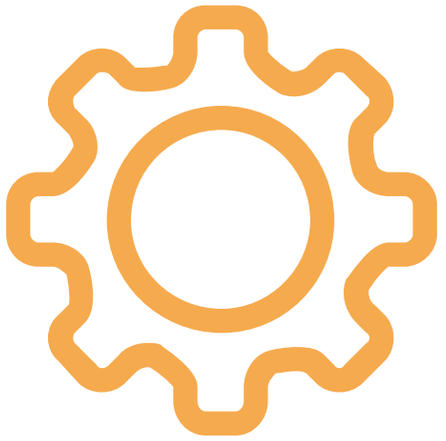
Focus

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.



Mouse 02

Course Goals

Thinkidea

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

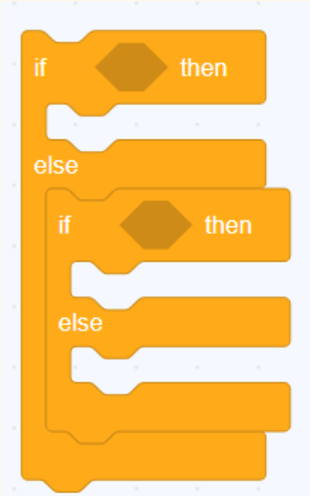
1

1. Create a mechanical mouse and control It with intelligent commands.
2. Consolidate the modules like “**if...then...**” 、 “ **Operators <** ” 、 “ **Sense**” .
3. Learn new modules “**Nested conditional statement**” 、 “ **light**” .
4. Comprehensively apply the learned modules to complete programming projects and expand.

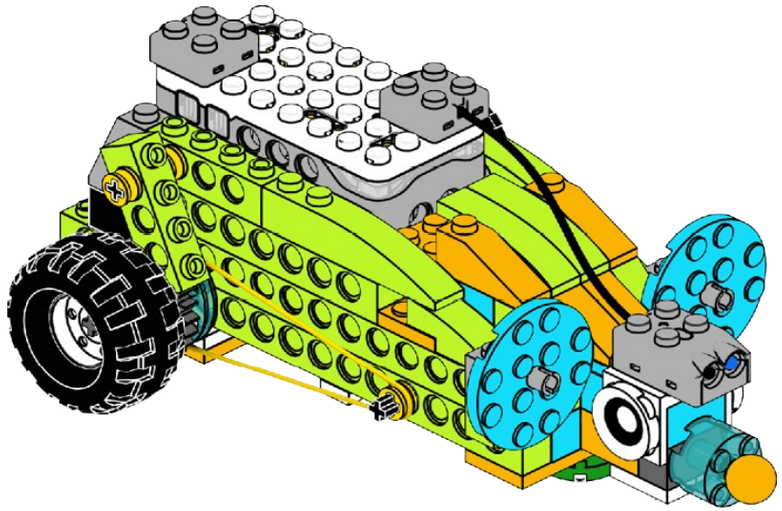
1

Consolidate modules:

New modules:



2



Project Discussion

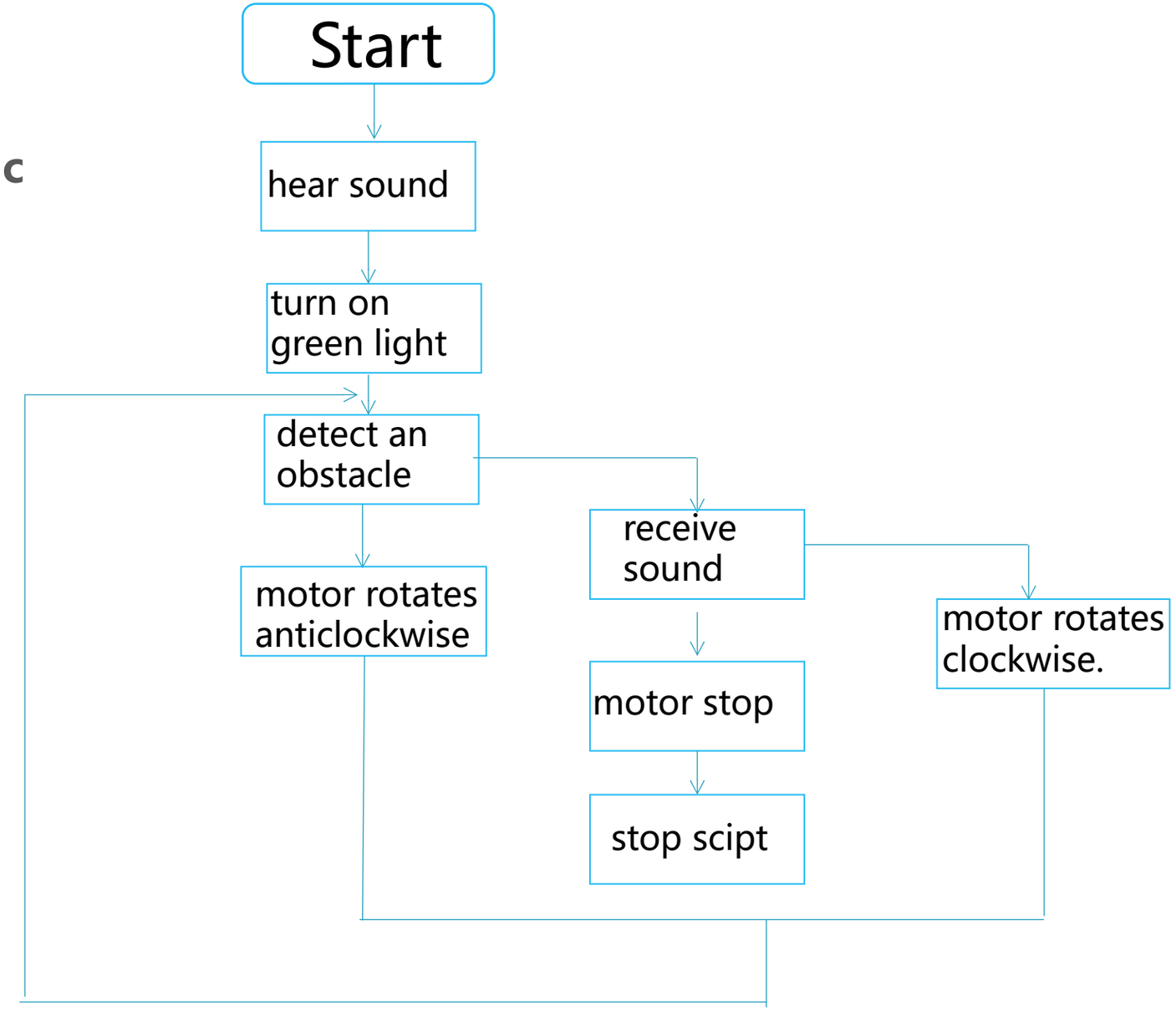
1.Say “Start,” and the mechanical mouse will light up green and move forward.

2.Follow the white circular line.

3.move around continuously.

4.Stop running when a stop command is received.

1.Programming logic

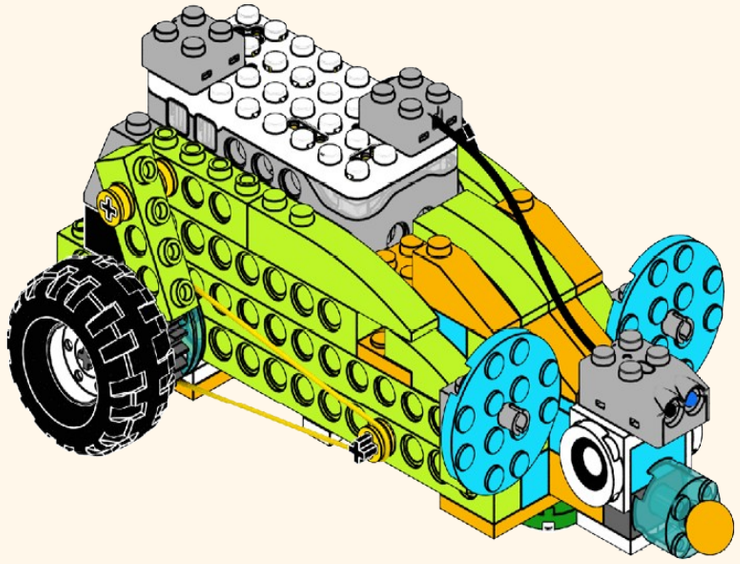


3

1.Thinking

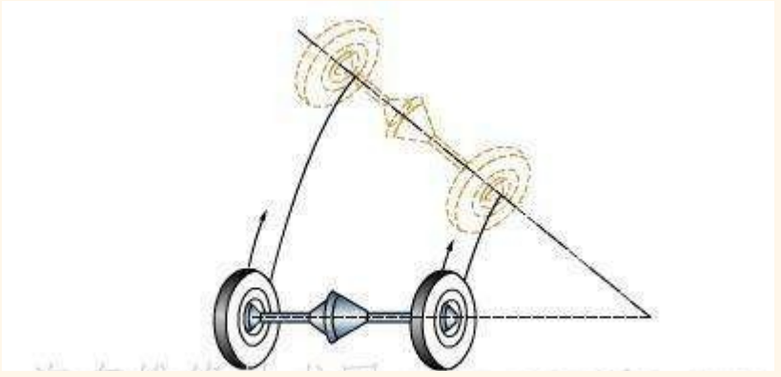
How does the mouse follow the black line?

Adjust the sensor to face downward.



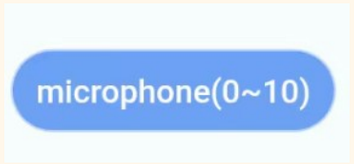
It uses the sensor to detect the reflected light intensity on both sides.

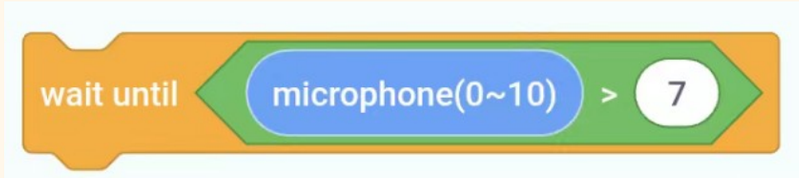
Let’ s give it a try!



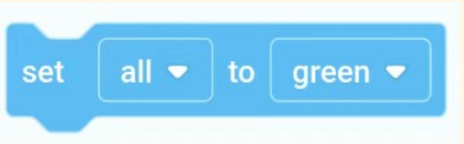
1.Programming logic

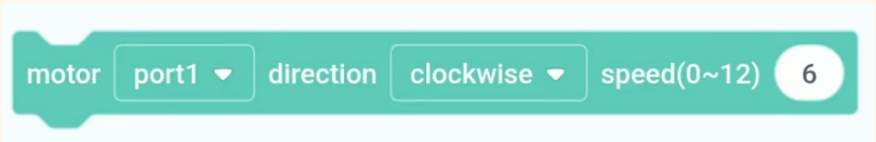
1.Receive the start command.

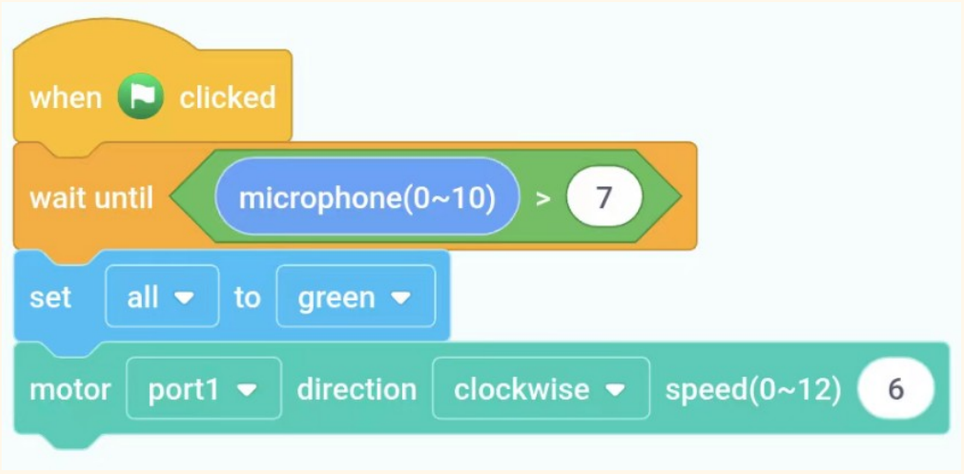




2.The green light on its back turns on.

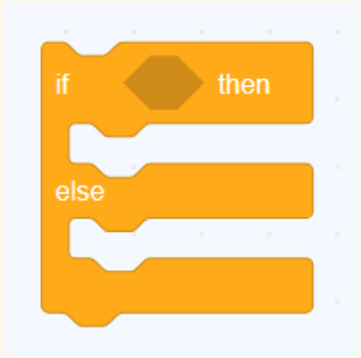


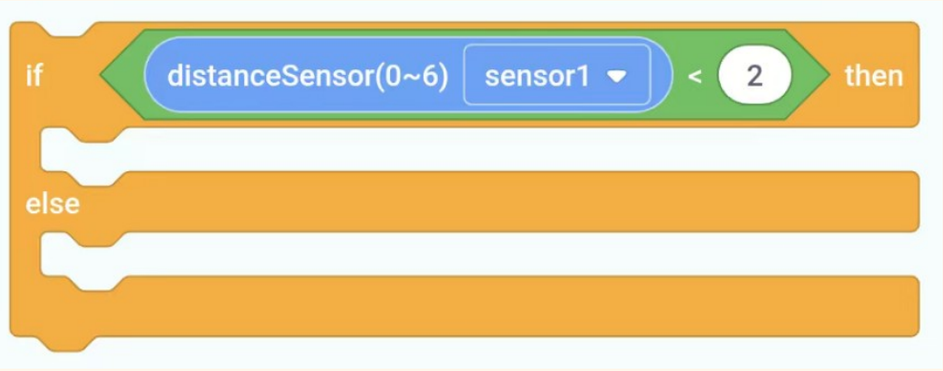




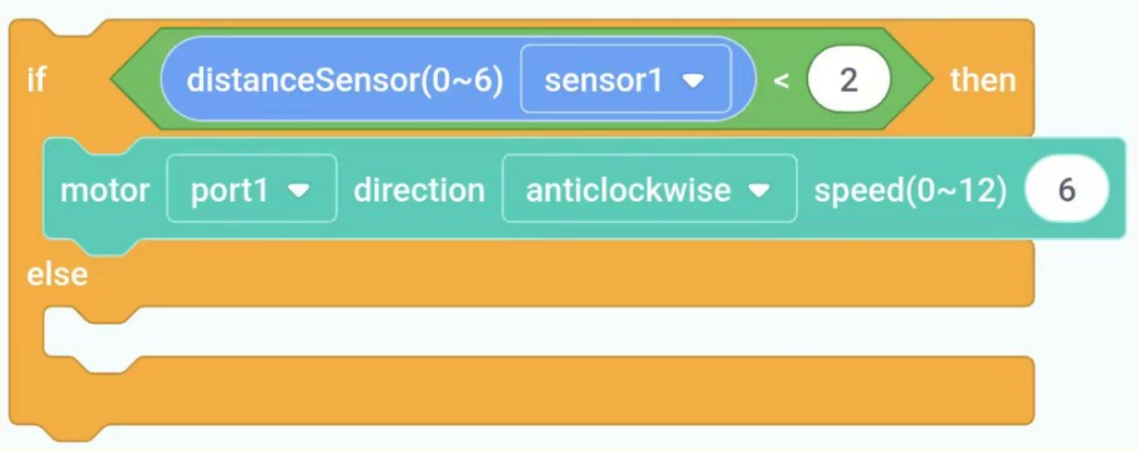
1.Programming logic

1.Let’ s program using the specified scripts!



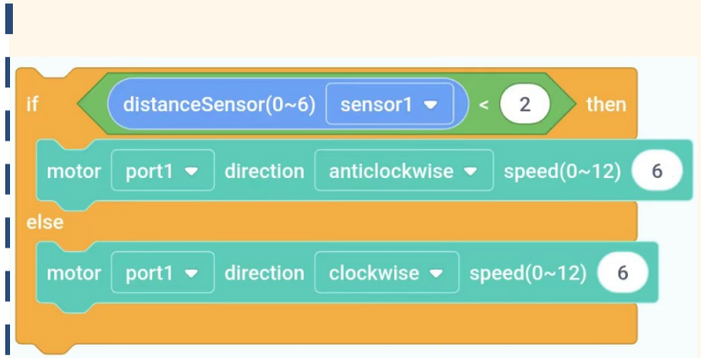


2.Turn right

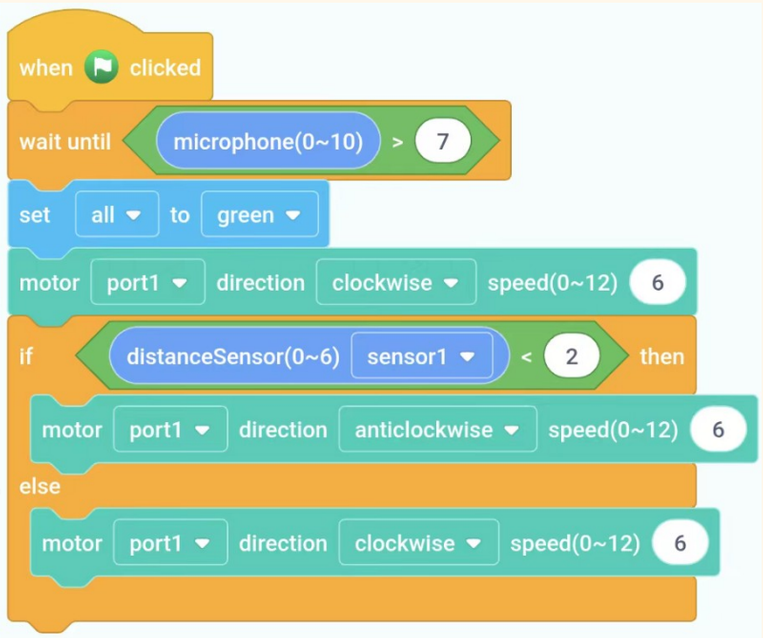


1.Programming logic

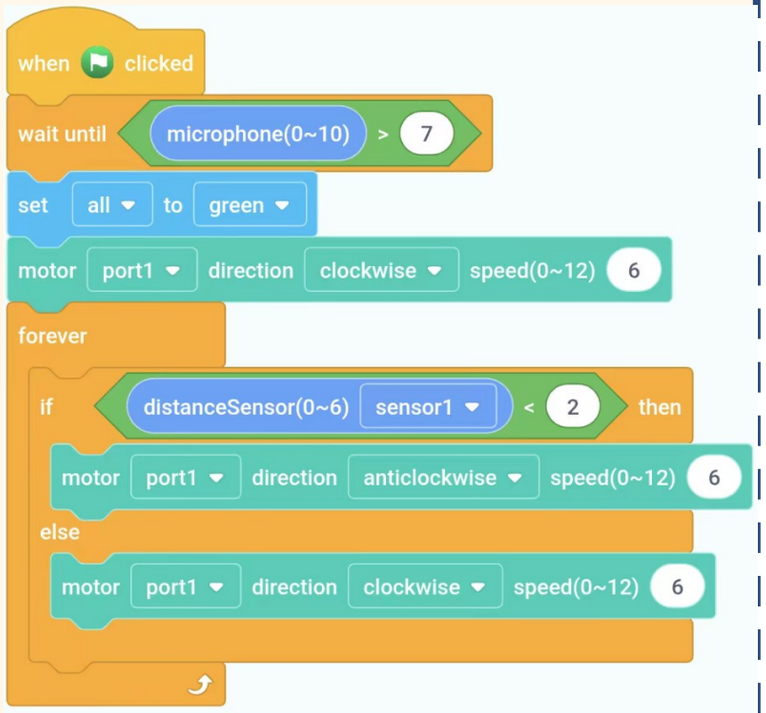
1.How do we create differential speed?



How does it work?



repeat



1.Programming logic

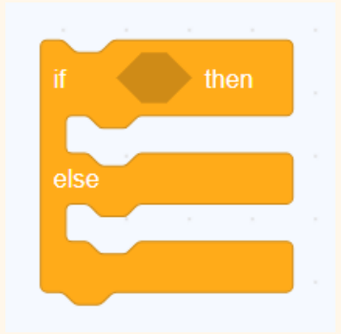
Let’s try it out
on the track!

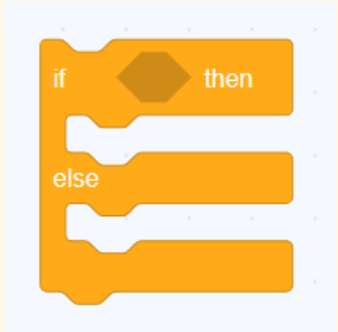
3

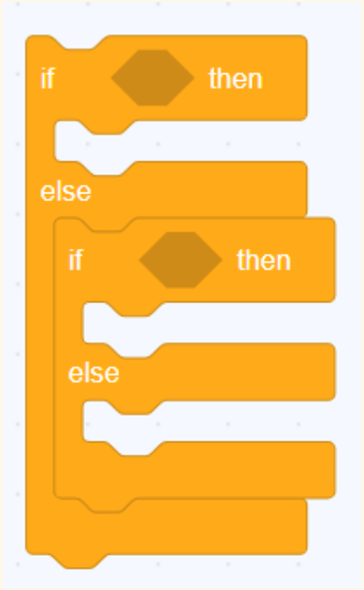
1.Have a try

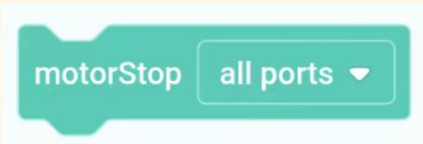
Try it out: when you call its name again, the mouse stops!

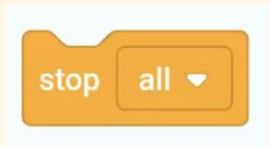
1.Learn nested conditional statements

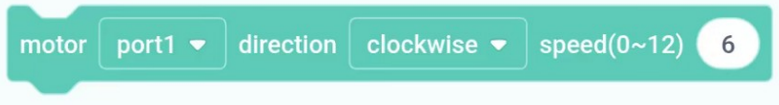


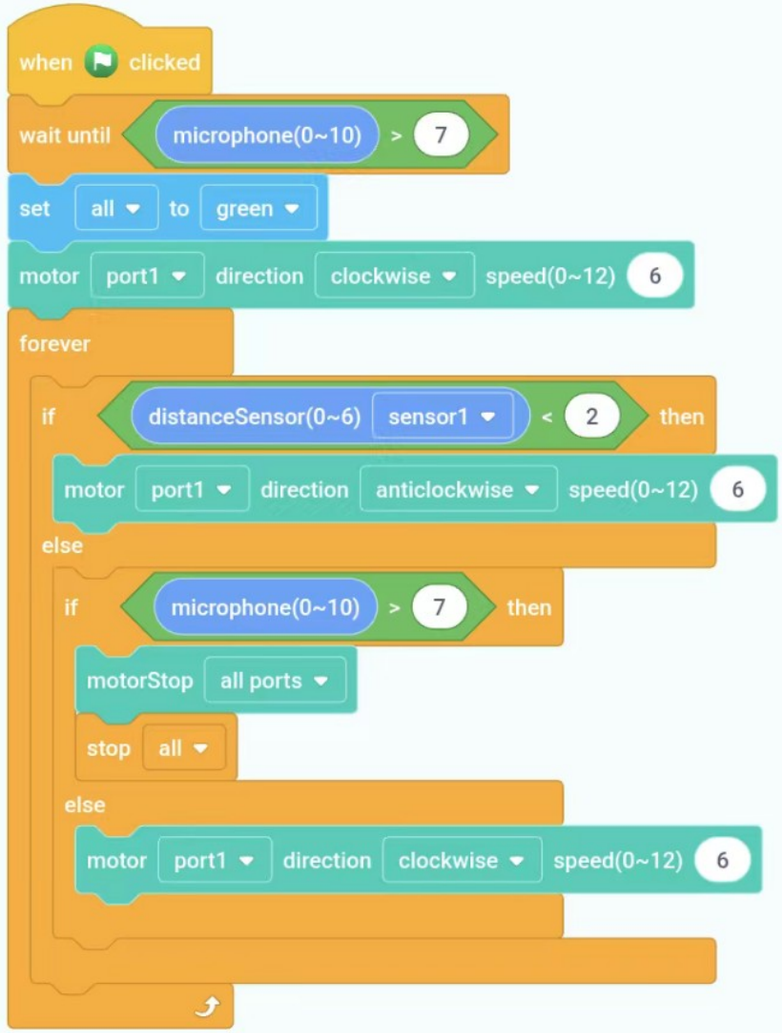








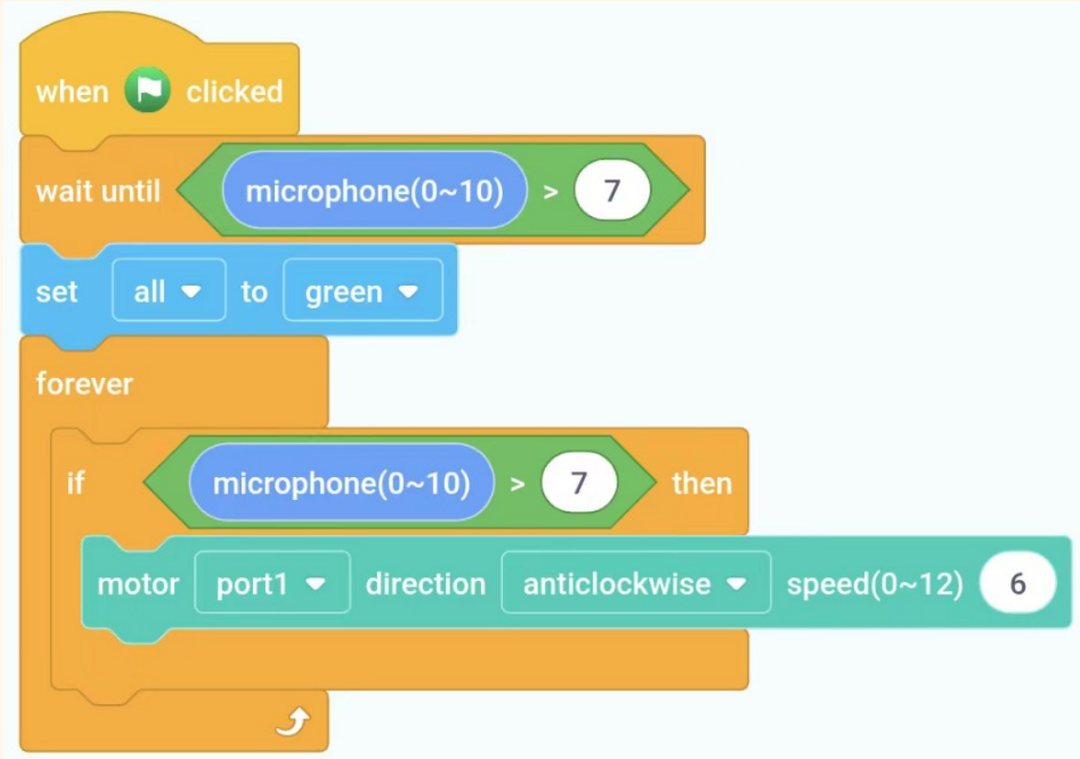




Consolidate and extend

Q & A

Q1 : Alex wrote a program for the mouse. What do you think it will do?

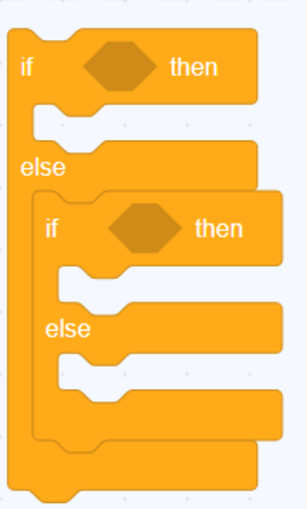


A1 : The green light on the mouse’ s back turns on.
After it hears a sound, the light turns off and it spins in place.

5

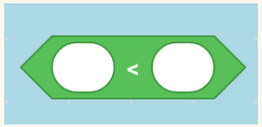
Knowledge Review

(1)



nested conditional statements

(2)

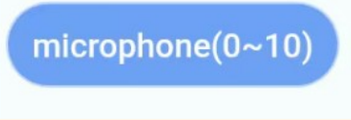


The comparison block checks which value in the two slots is larger or smaller.

5

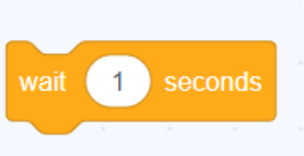
Knowledge Review

(3)



Receive volume

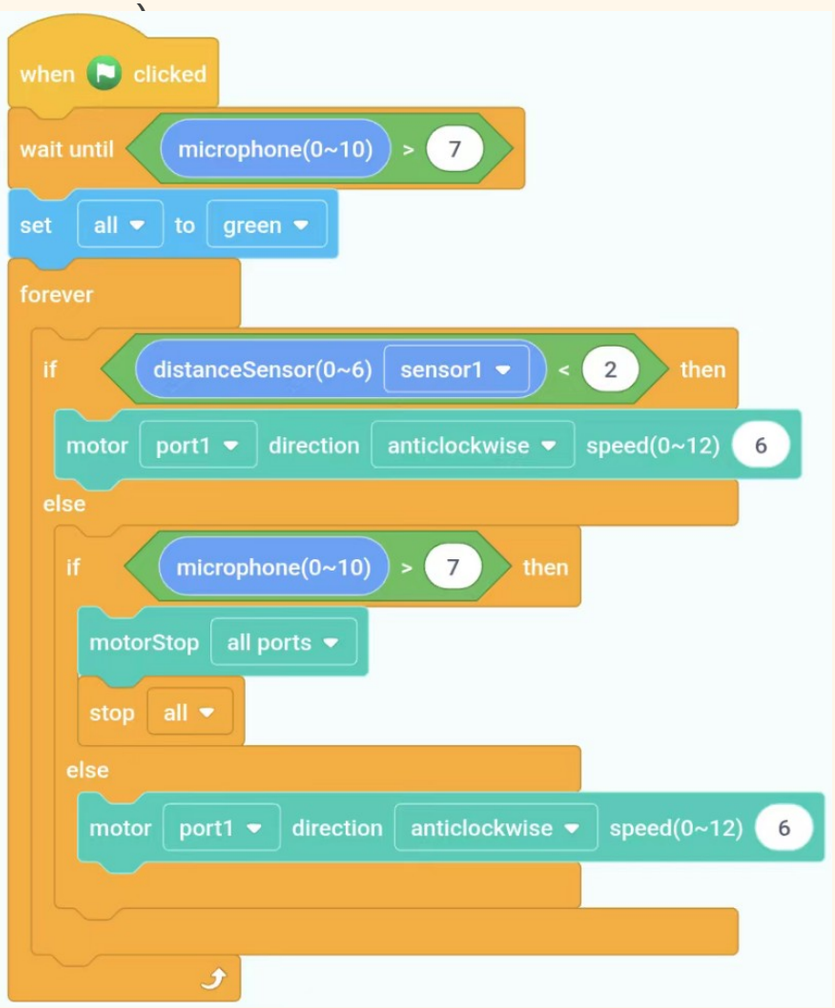
(4)



The program runs in sequence, with a waiting time interval between the two scripts.

5

Alex programmed the mouse like this, but it keeps spinning in circles when it hears a sound. Why is that? （ ）



A The motor direction is set incorrectly.

B The sound is not loud enough.

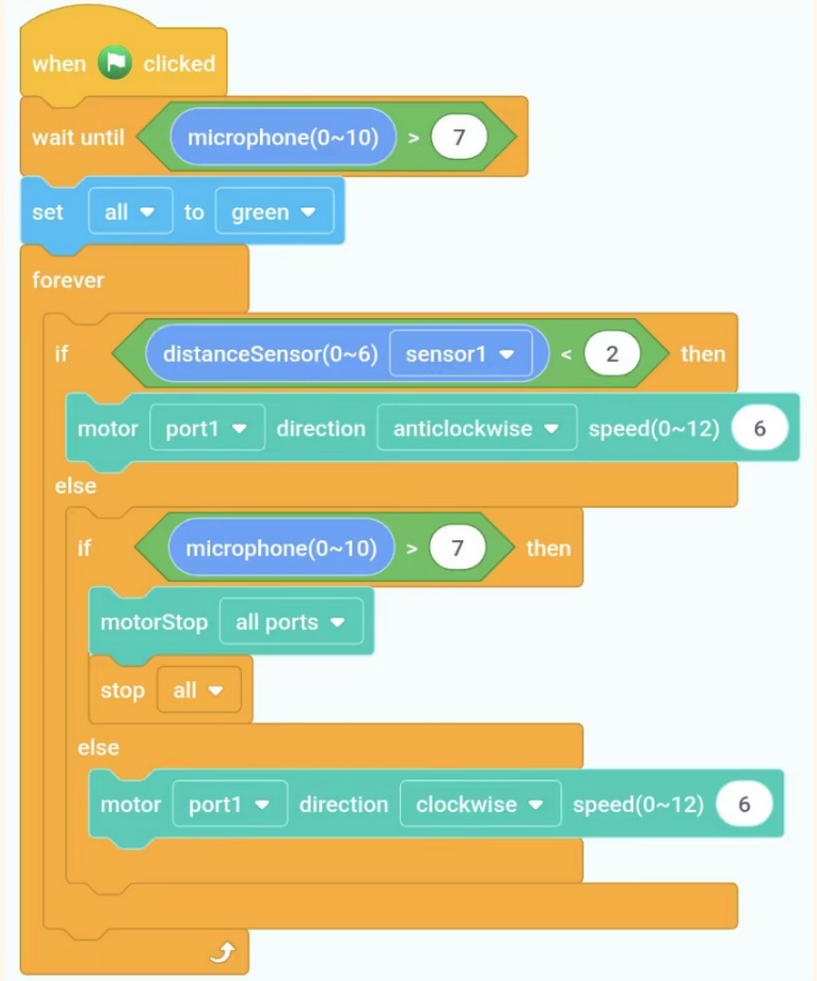
D The mouse can’t hear the sound.

C No loop module is used.

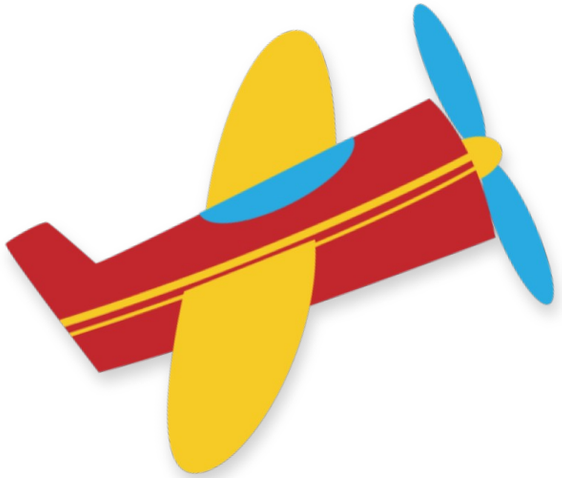
5

Answer : **A**

Analysis : **Because the motor’s rotation direction is incorrect.**



Talk



THANKS