Logic

Space

Coding

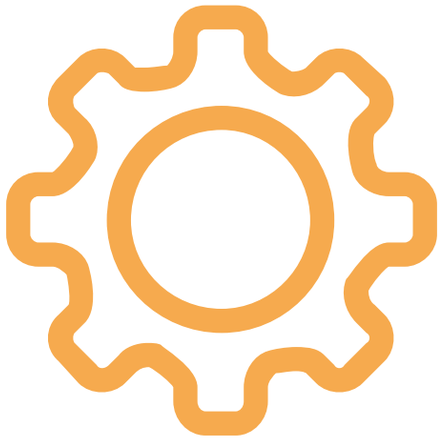
Focus

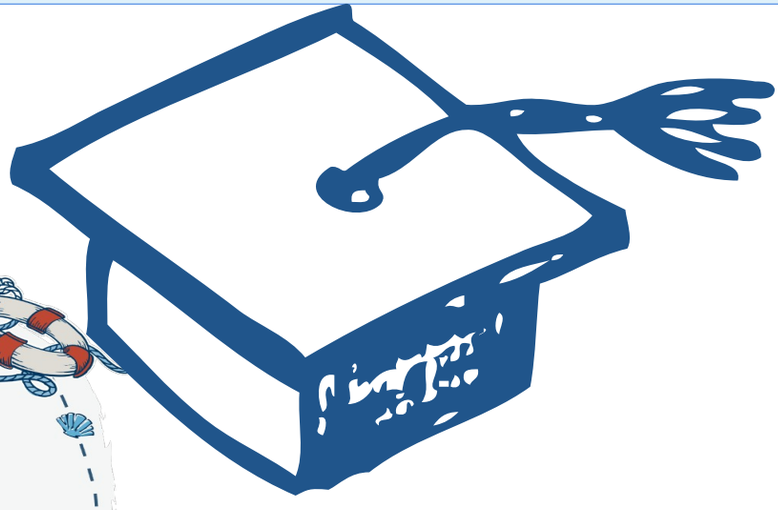
Classroom Discipline

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.





Tyrannosaurus

01

Course Goals

Thinkidea

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

1

1. Build a dinosaur park where a timid dinosaur moves forward and hides whenever it detects something in front of it.

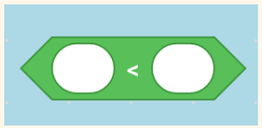
2. Consolidate modules such as “**Operators >**” 、 “**if...then...else...**” 、 “**light**” .

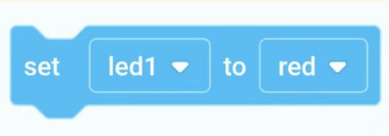
3. Learn new modules such as “**repeat until...**” 、 “**broadcast message**” “**receive message**” .

4. Comprehensively apply the learned modules to complete programming projects and expand.

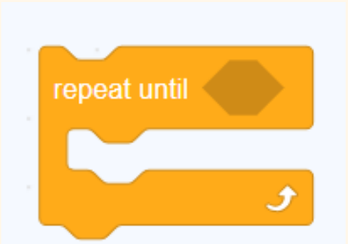
1

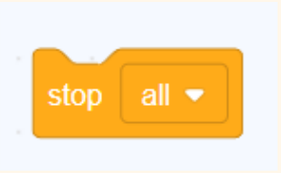
Consolidate modules:

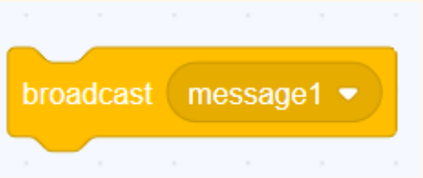


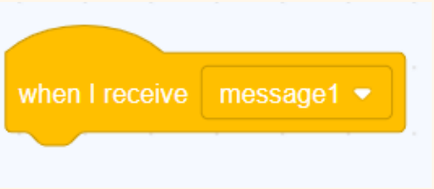


New modules:

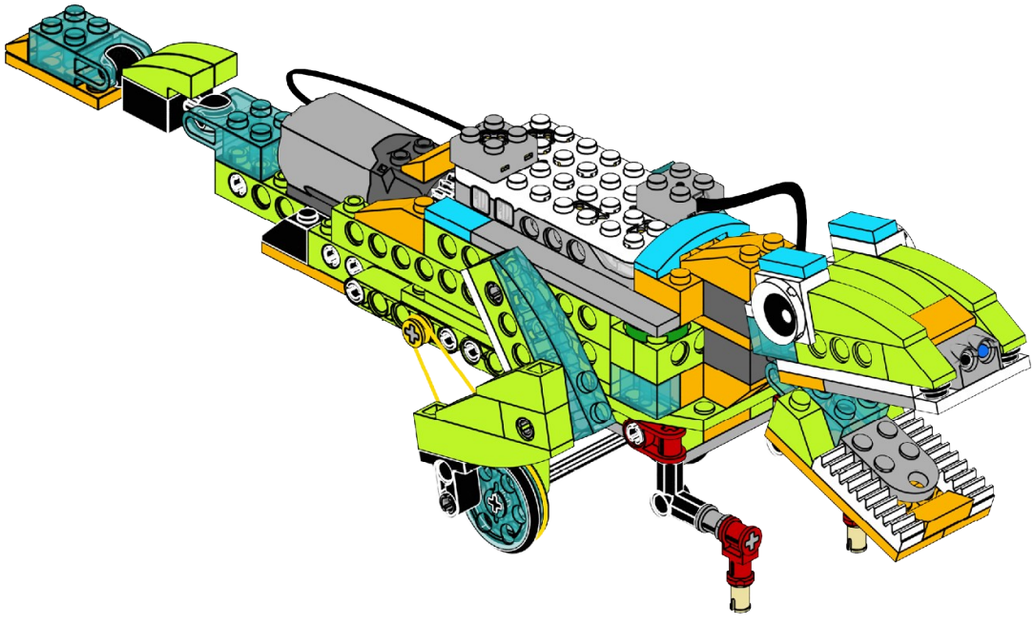








2



Project Discussion

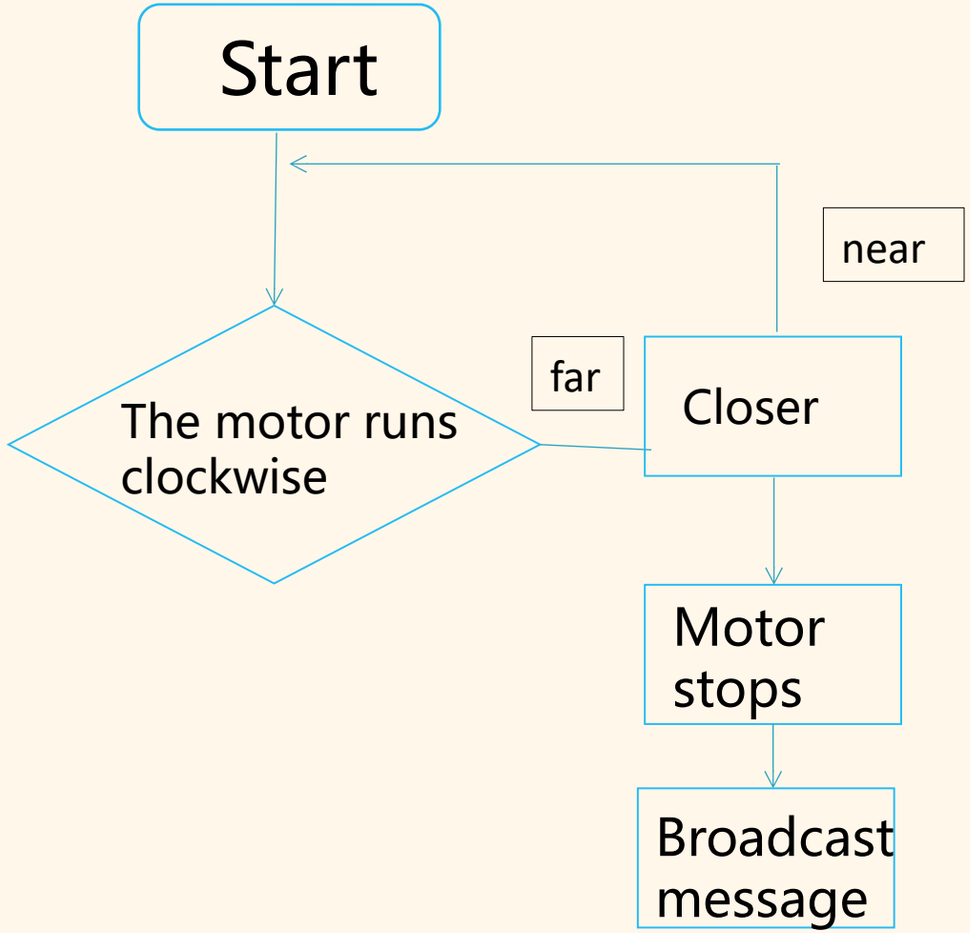
1.Make the Tyrannosaurus move forward.

2.Flash different lights.

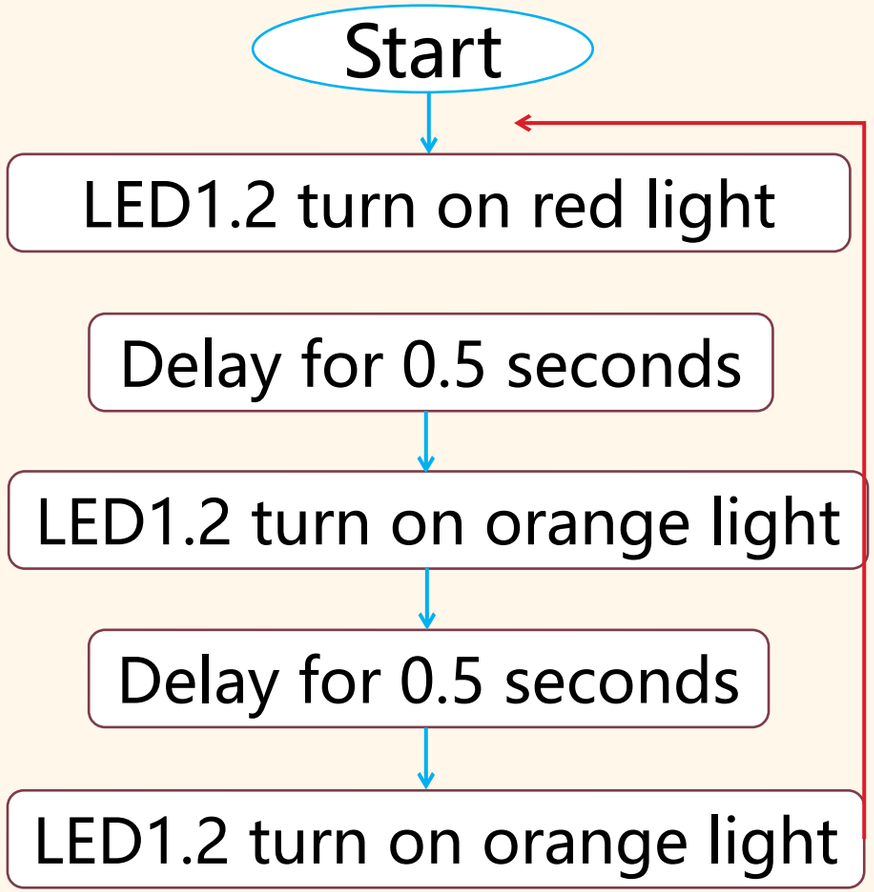
3.Stop when it sees an obstacle.

4.The lights stop as well.

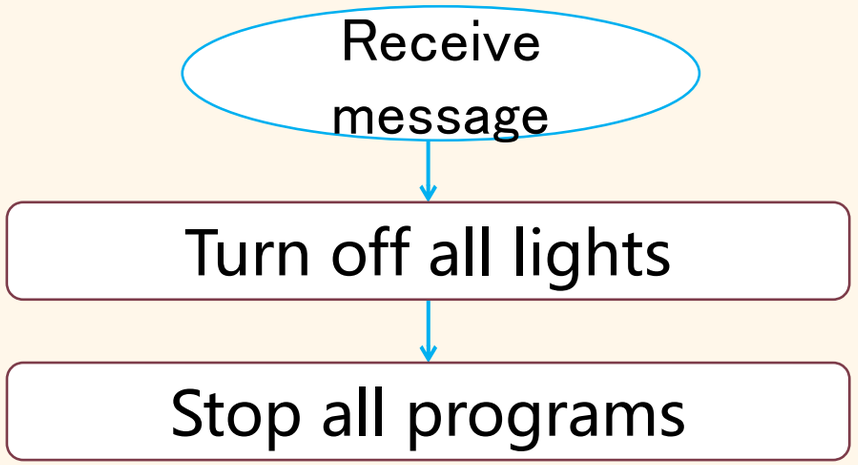
1.Programming logic for moving forward



2.Programming logic for turning on lights



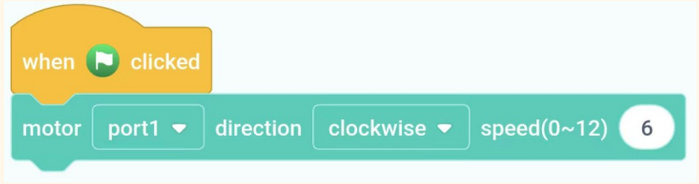
2.Programming logic for turning on lights



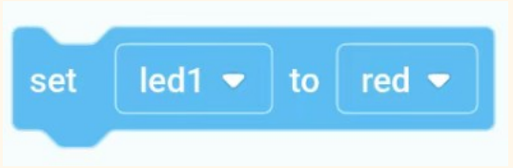
2

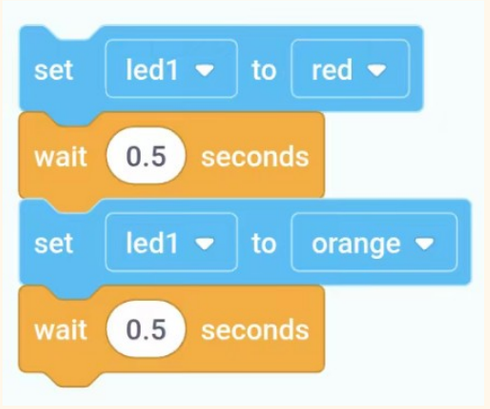
1.Make the Tyrannosaurus move forward.

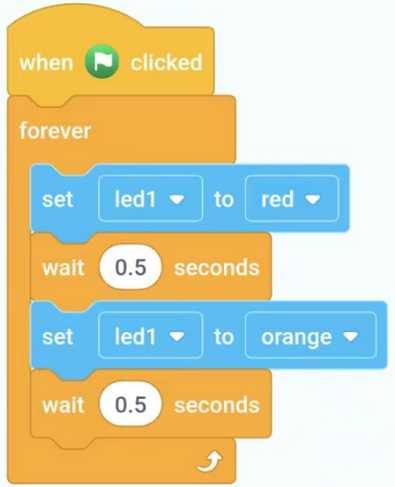
1.Tyrannosaurus moves forward.



2.Program the lights according to your own ideas!





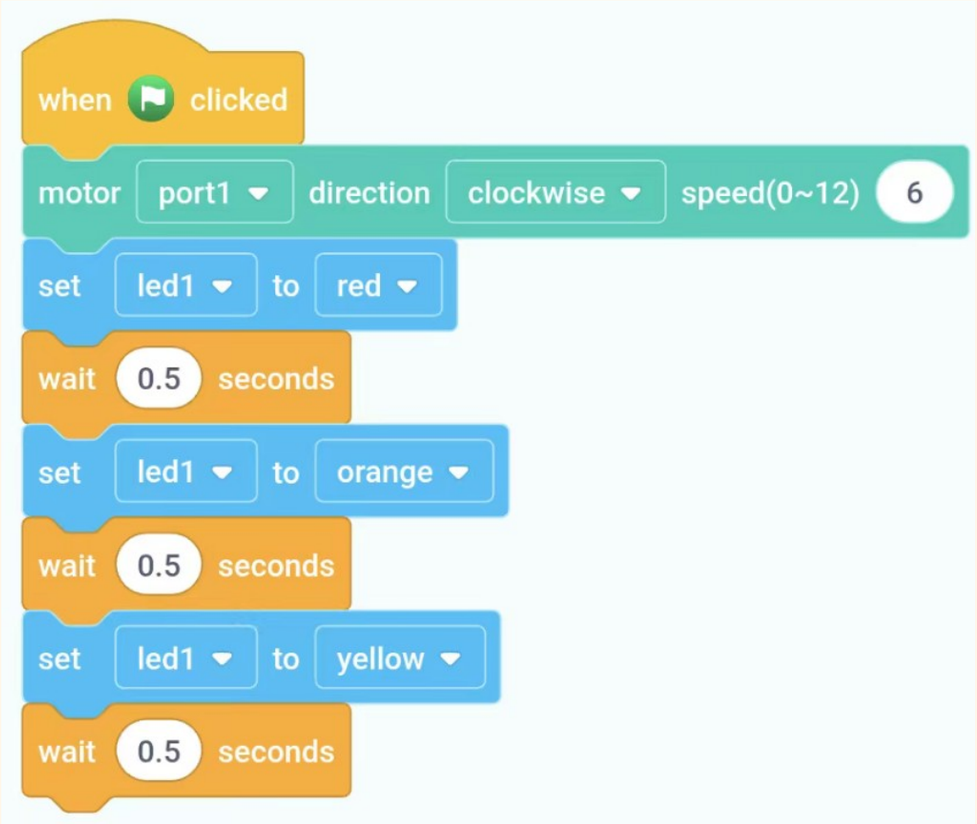


Remember to put a time delay between each script! !

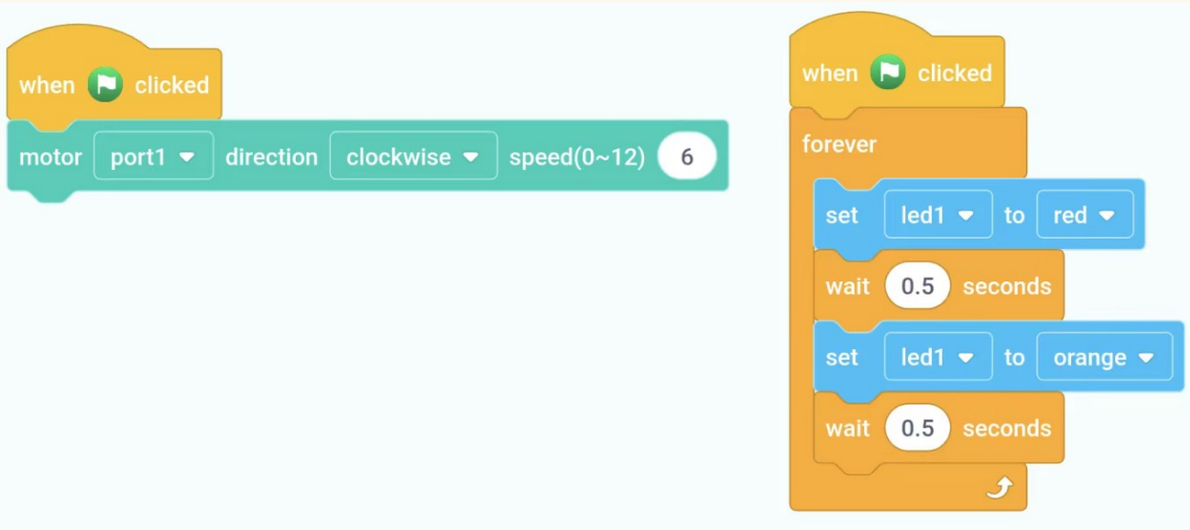
3

1.Learn parallel program

1.How can you make the robot move and flash the lights at the same time?

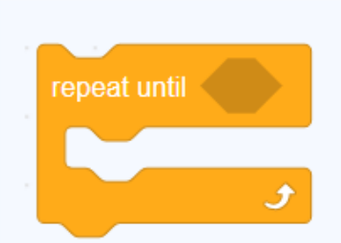


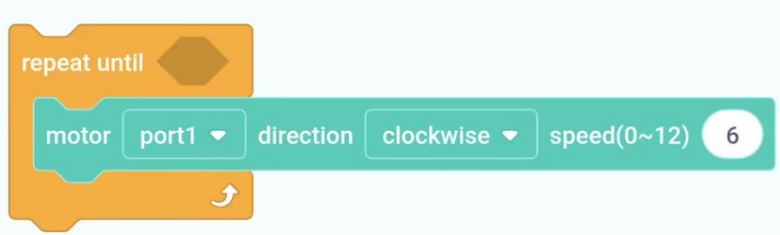
2.Run two or more programs at the same time.

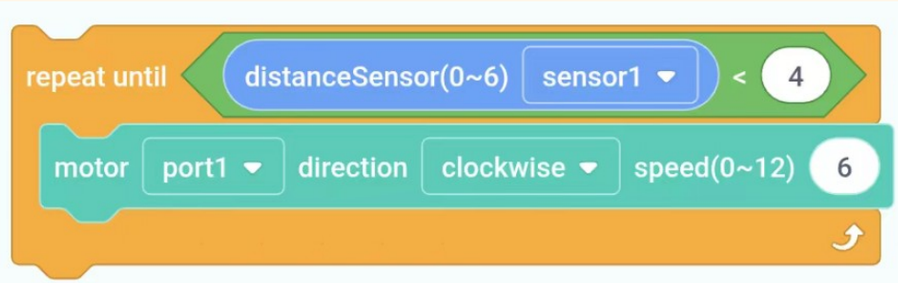


2.Detect obstacles

1.Learn a new conditional statement

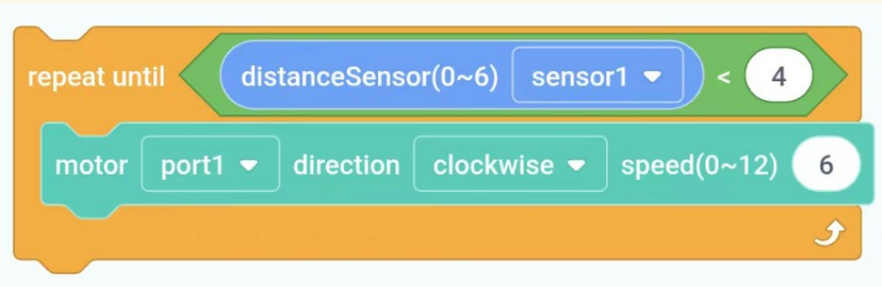




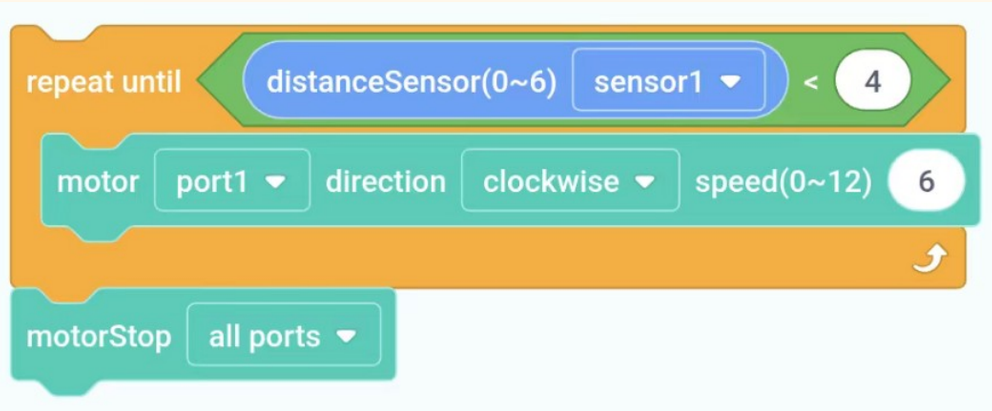


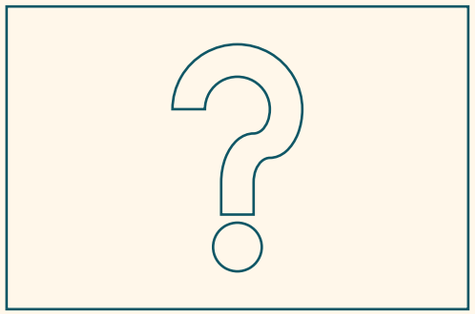
Repeat until the condition is met.

2.Stop running when an obstacle is detected



How do you stop it?



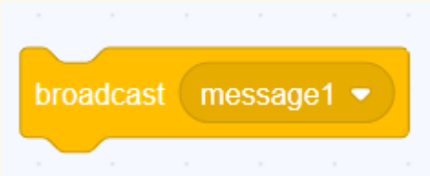


Did anyone notice anything?

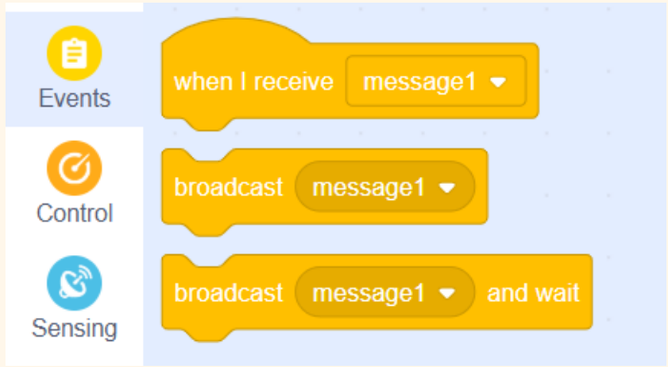
3

1.All scripts stop when the car stops

1.Learn new modules

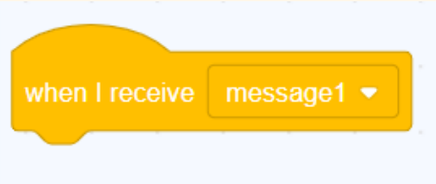


Broadcasts are divided into a sender and a receiver. After a message is sent, the program will only run correctly if the correct signal is received.

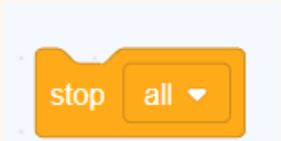


Youcan find it in “Events”.

2.Learn new modules



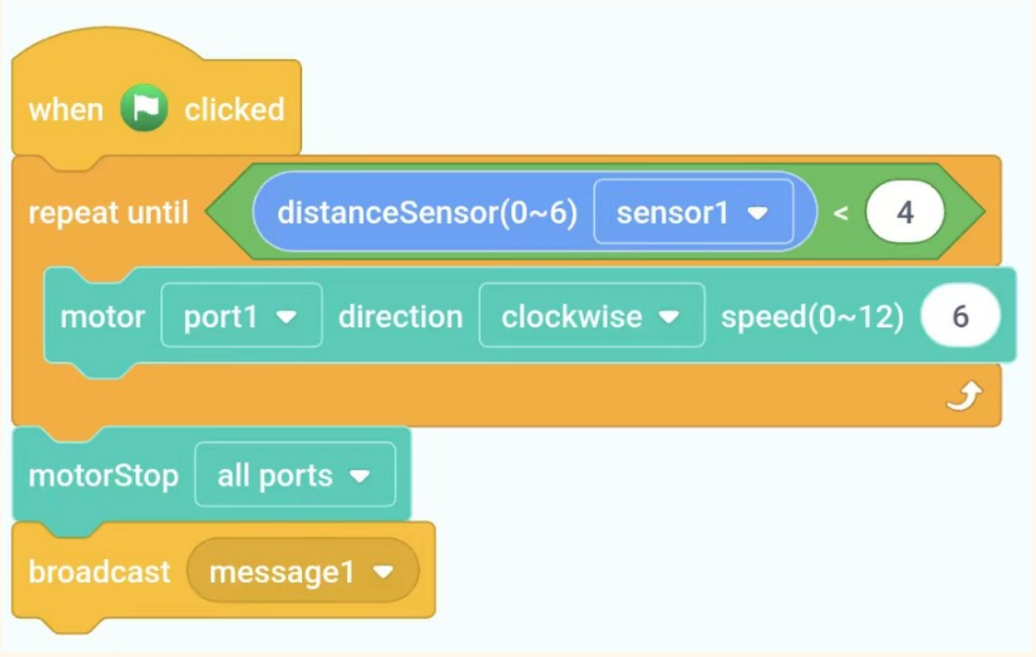
The receiver marks the beginning of the program.

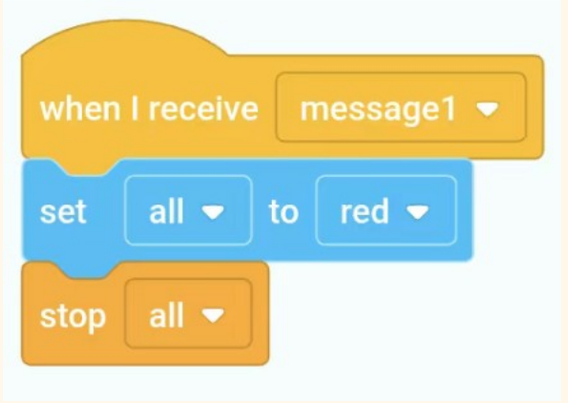


All scripts stop running.

3

1.Think about how to place it.

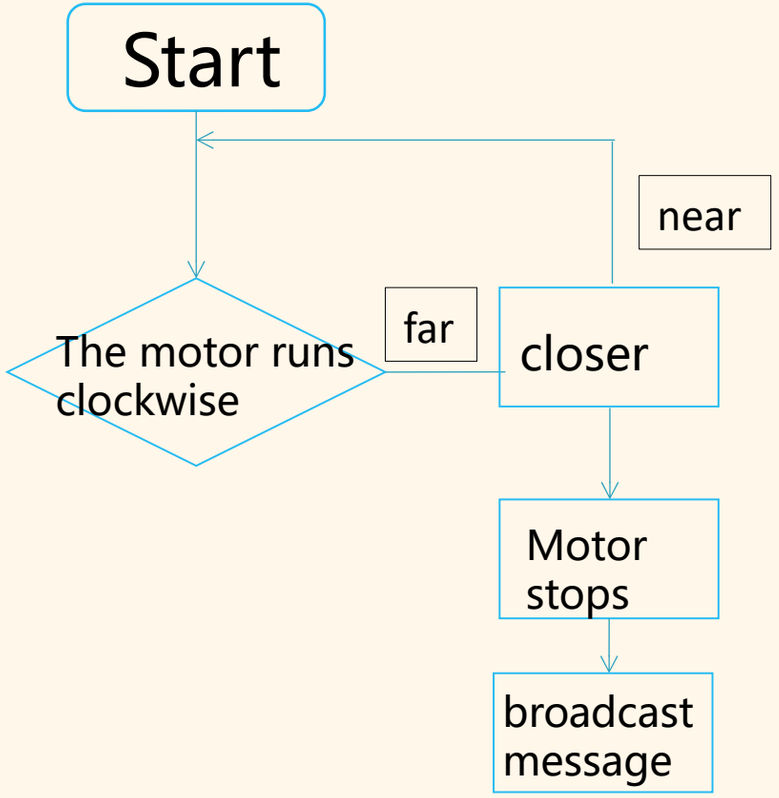


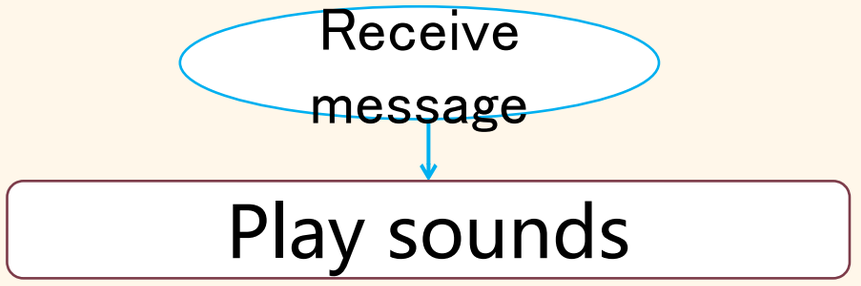


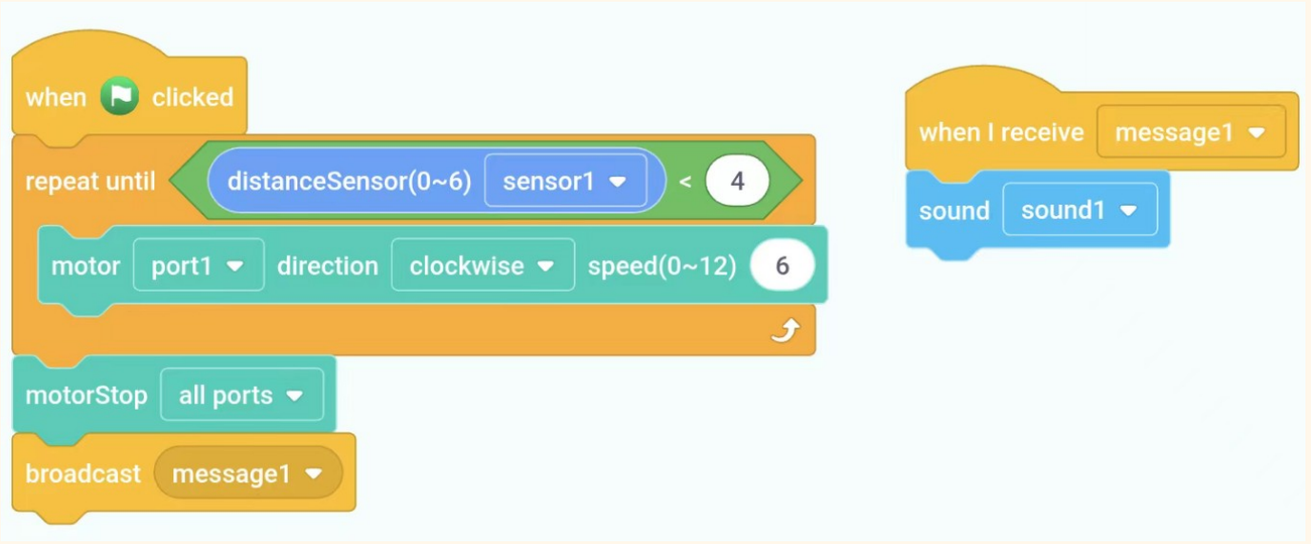
4

1.Have a try

Task 1: When the Tyrannosaurus stops, it broadcasts a message. After receiving the message, a sound effect will play. Try writing down your flowchart for this!



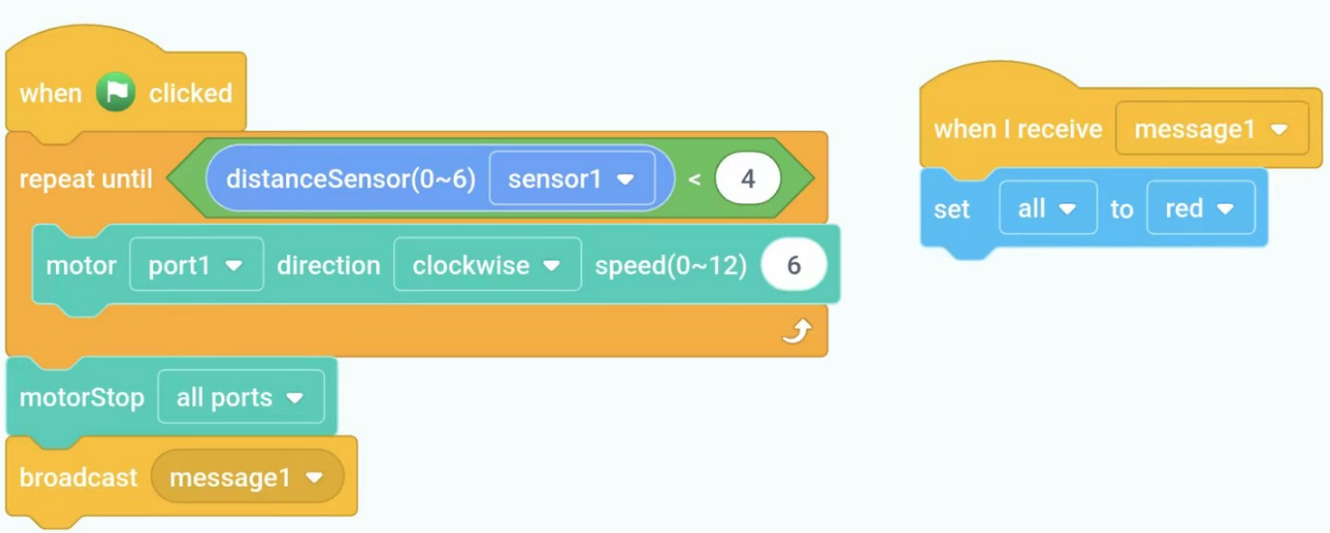




Consolidate and extend

Q & A

Q1 : Alex programmed the Tyrannosaurus, but even after the car stops, the host controller keeps switching the lights. Why is this happening?

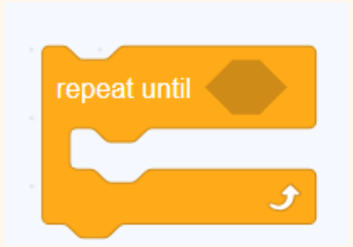


A1 : Because not all scripts were stopped, turning it off just caused the light program to start looping again.

5

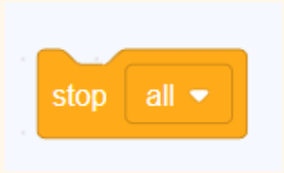
Knowledge Review

(1)



An If command keeps looping until a certain condition is met.

(2)

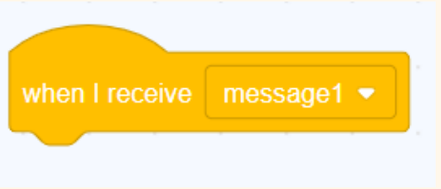


All scripts stop running.

5

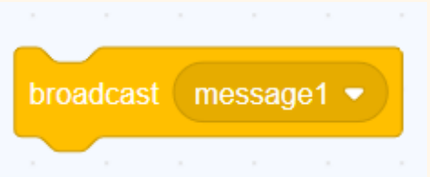
Knowledge Review

(3)



Receiver module

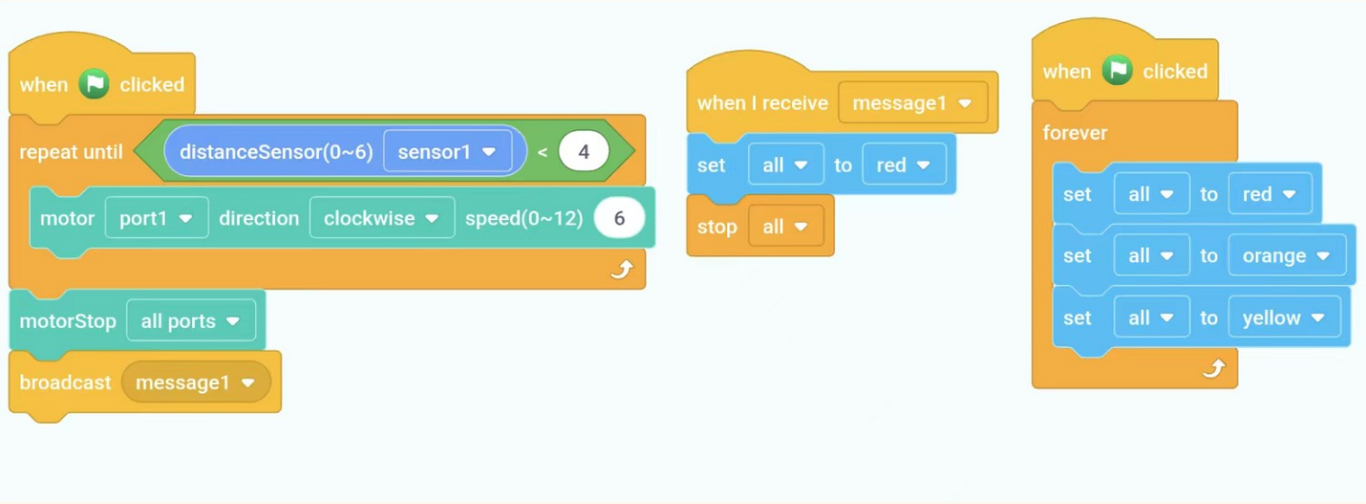
(4)



Broadcasts are divided into a sender and a receiver. After a message is sent, the program will only run correctly if the correct signal is received.

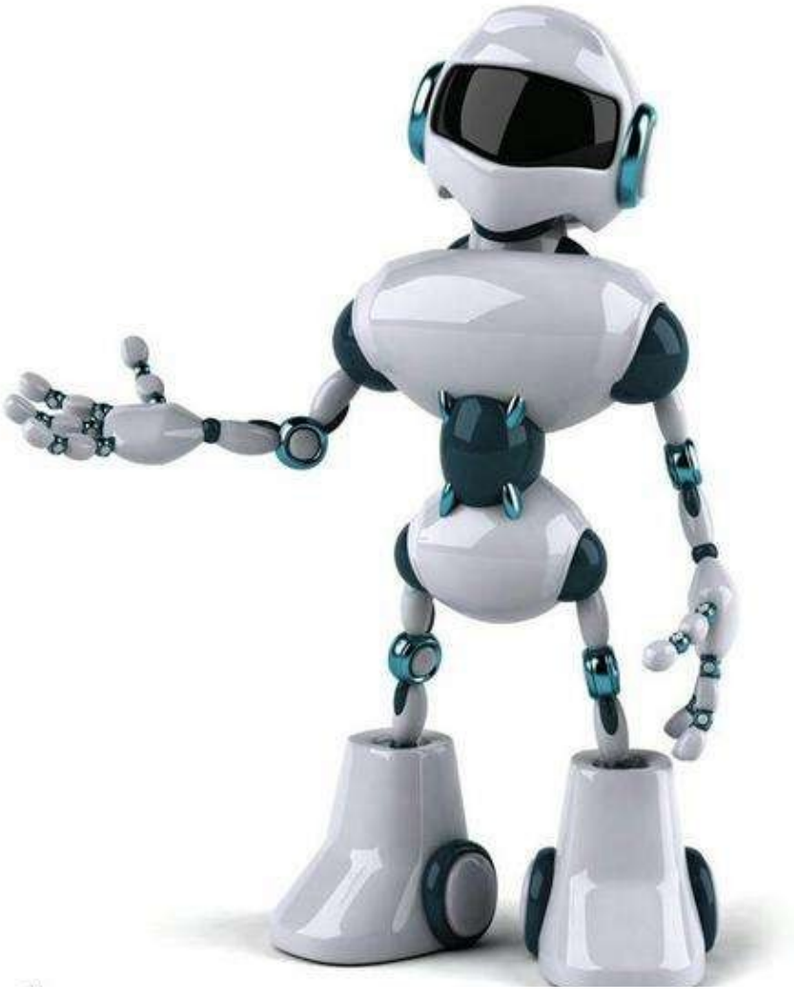
5

Alex programmed the car like this, but the host controller’s LED lights never change. Why is that? ( )



A There aren’t enough lights. B The lights don’t have a time delay.

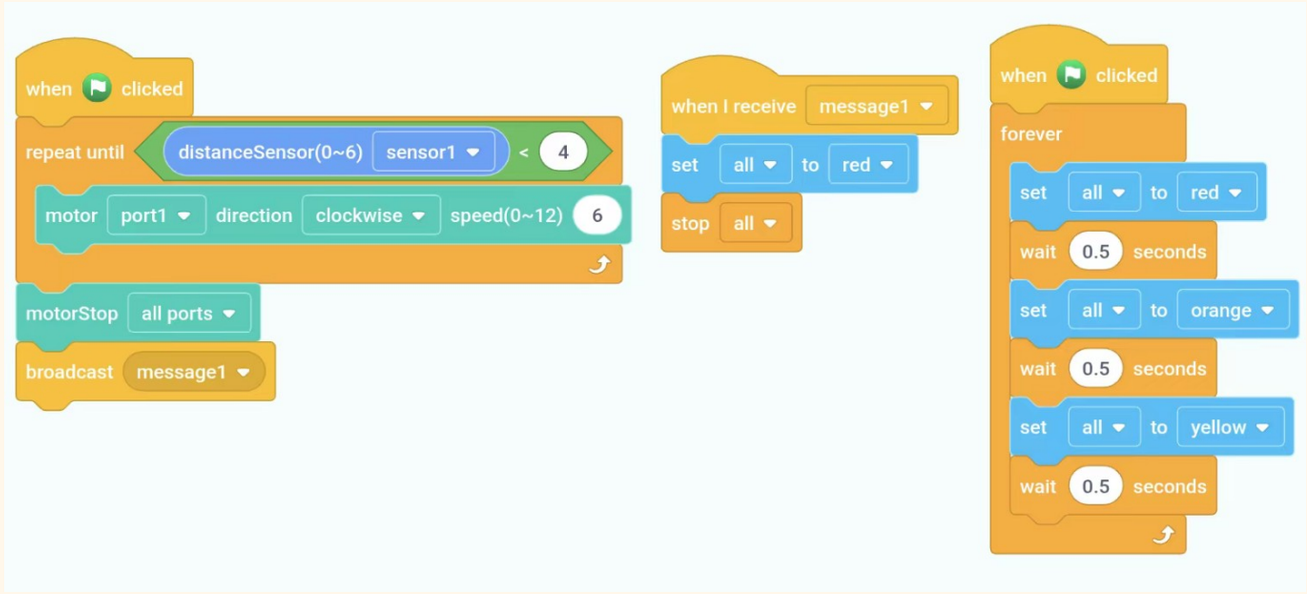
C The battery has run out. D A loop module was included.

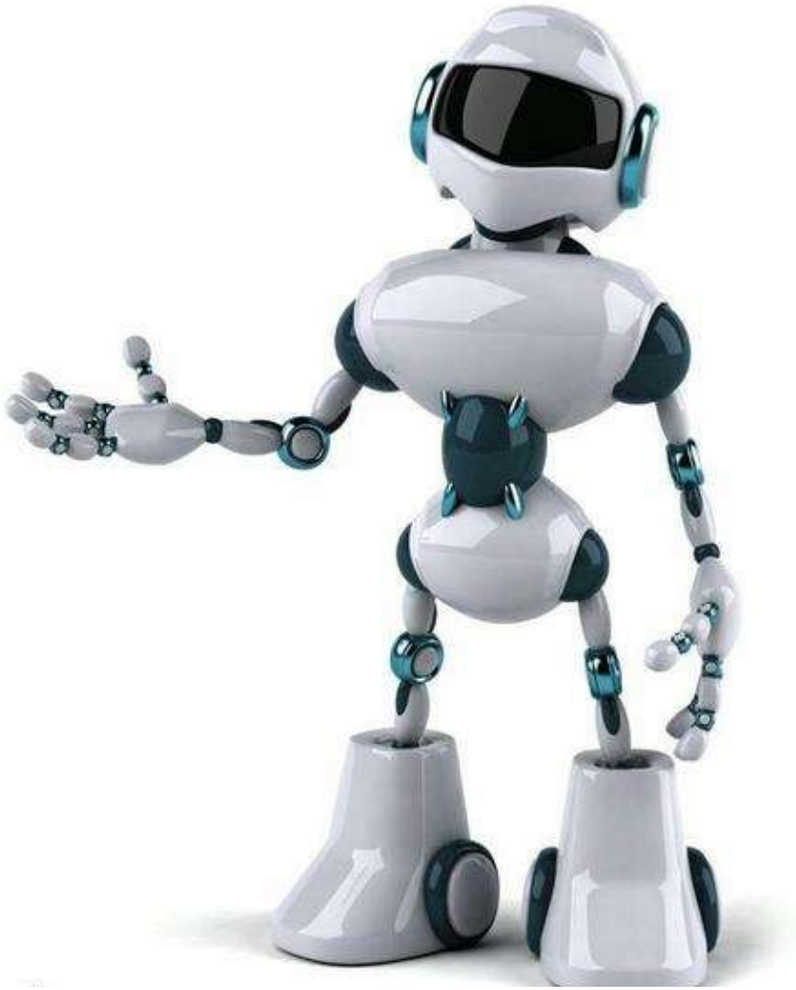


5

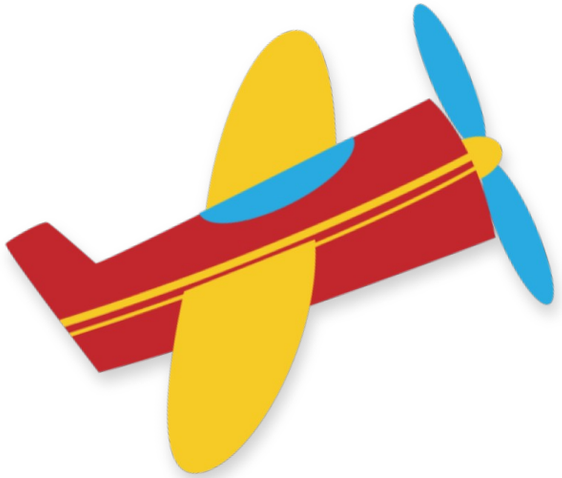
Answer : **B**

Analysis : **Because the lights don’ t have a time delay.**





Talk



THANKS