



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.





Score Indicator

01



Course Goals



Thinkidea

1

Learning goals

2

Project Discussion

3

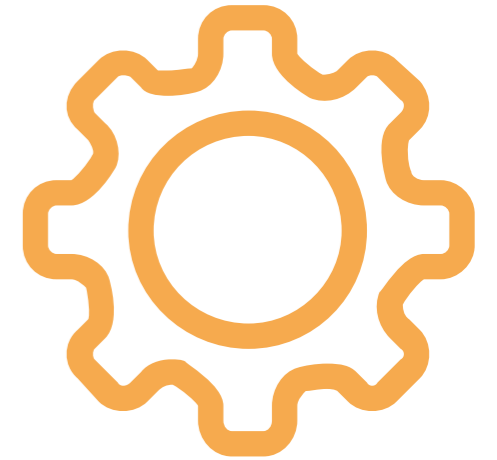
Logic Programming

4

Have a try

5

Consolidate and extend





1

Create a basketball game and implement the scoring commands.

2

Consolidate the modules like "if...then..." 、 "Operators <" 、 "Sense" .

3

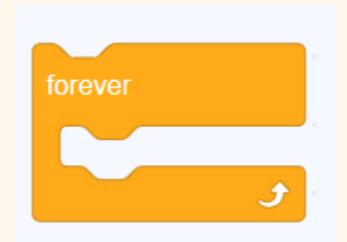
Learn new modules "Variables" 、 "light" .

4

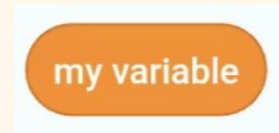
Comprehensively apply the learned modules to complete programming projects and expand.

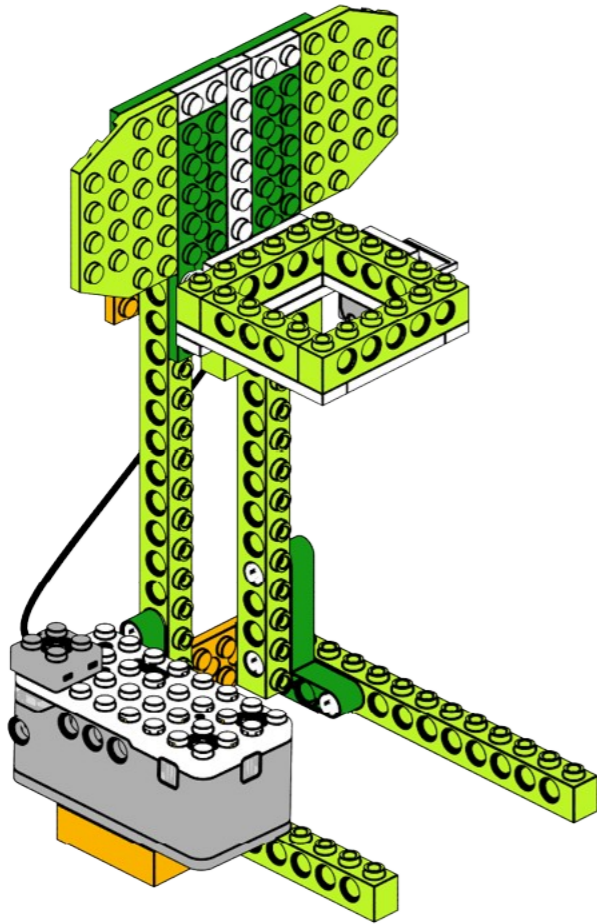


Consolidate
modules:



New
modules:

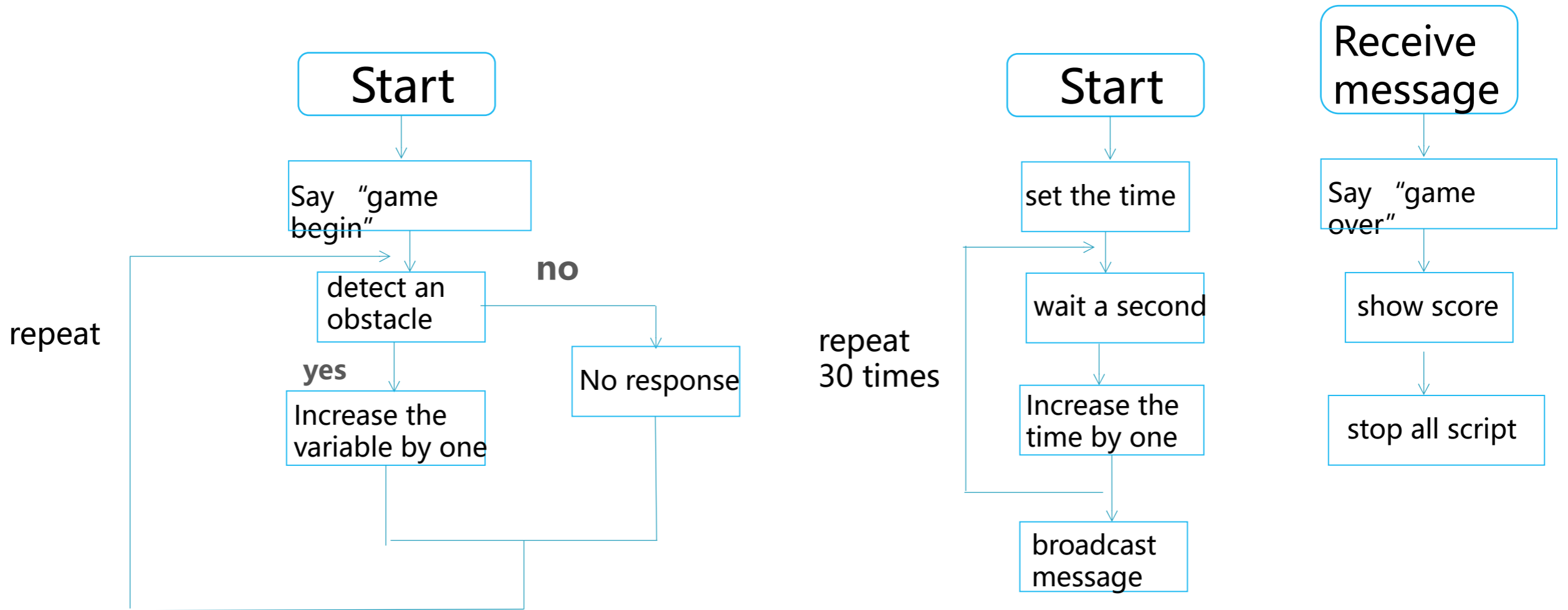




Project Discussion

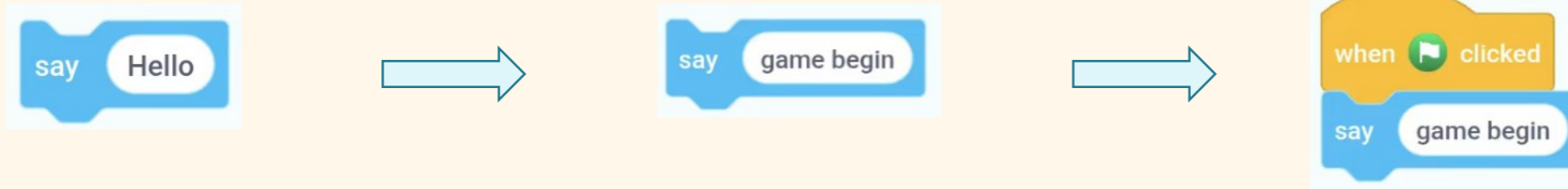
1. Say "Game Begin" .
2. Score one point for each basket made.
3. Say "Game Over" after 30 seconds.
4. Show the score.

1. Programming logic

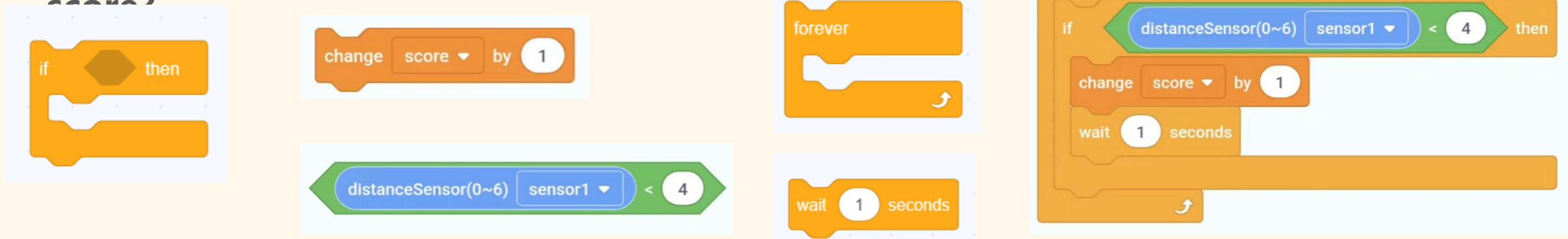


1. Programming logic

1. When the start command is received

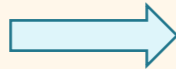
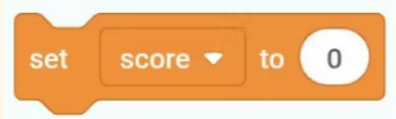


2. How to calculate the score?

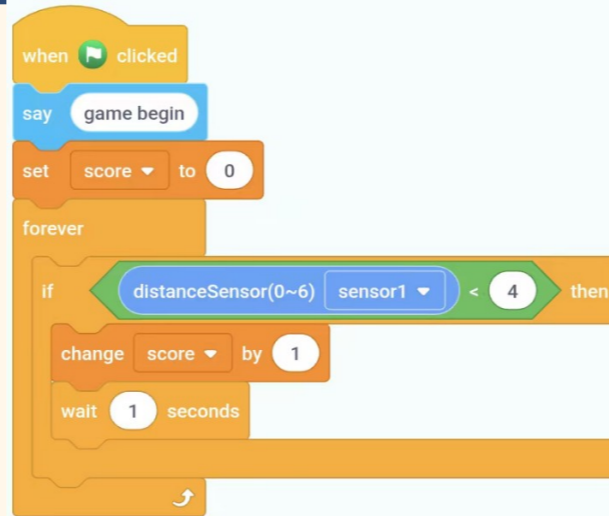


1. Programming logic

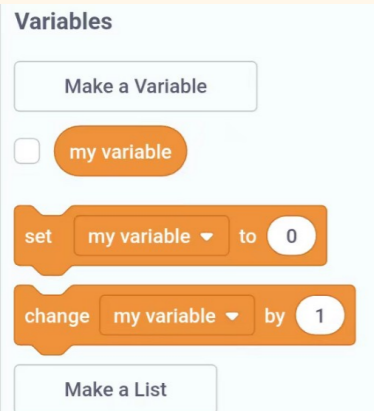
1. Calculate the score



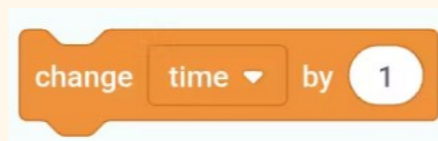
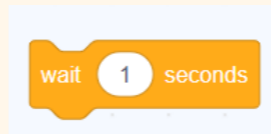
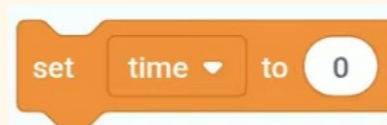
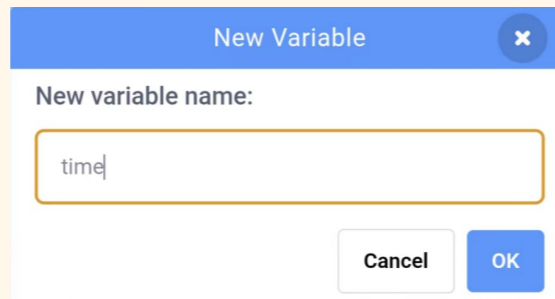
Does the score need to be inside the loop?



2. Start counting the time

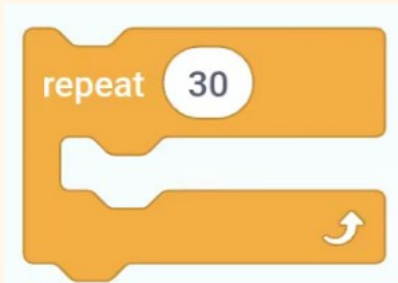


Create a new score variable

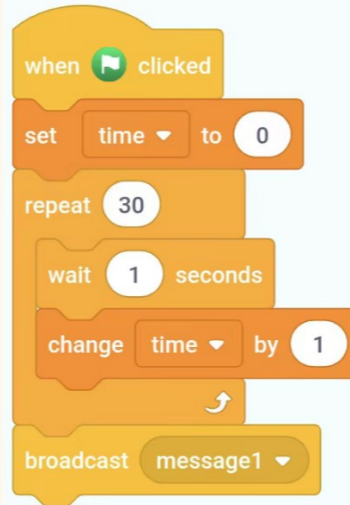


1. Programming logic

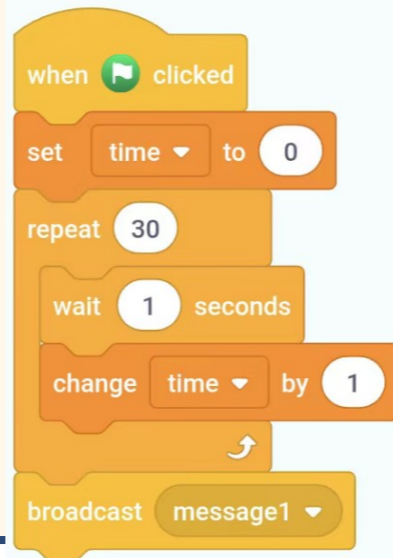
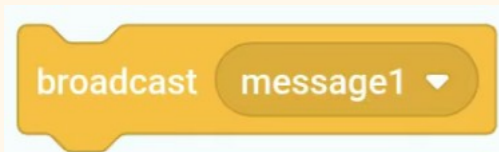
1. How do we calculate 30 seconds?

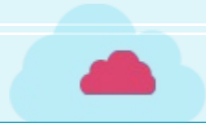


repeat 30 times



2. What happens when the time runs out?



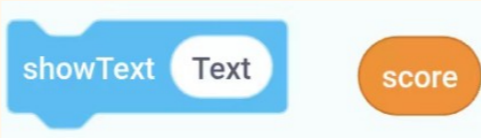
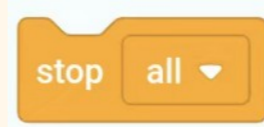
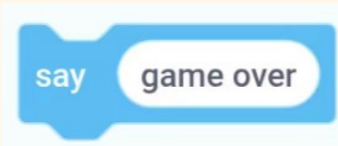


1. Programming logic

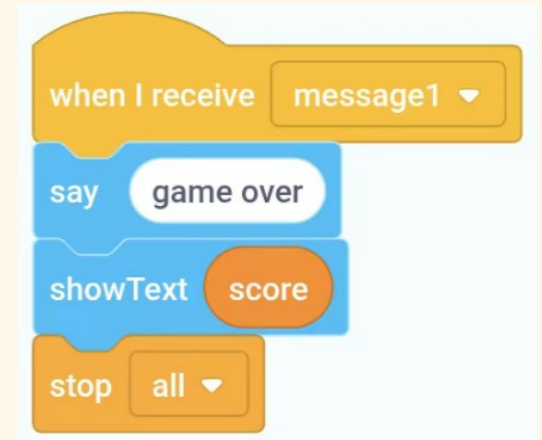
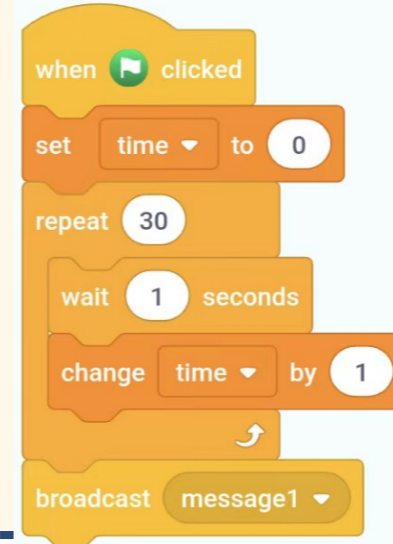
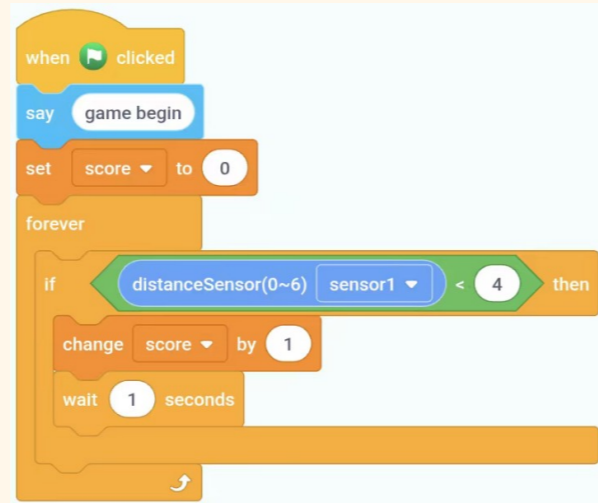
1. What happens when the time runs out?

broadcast message1

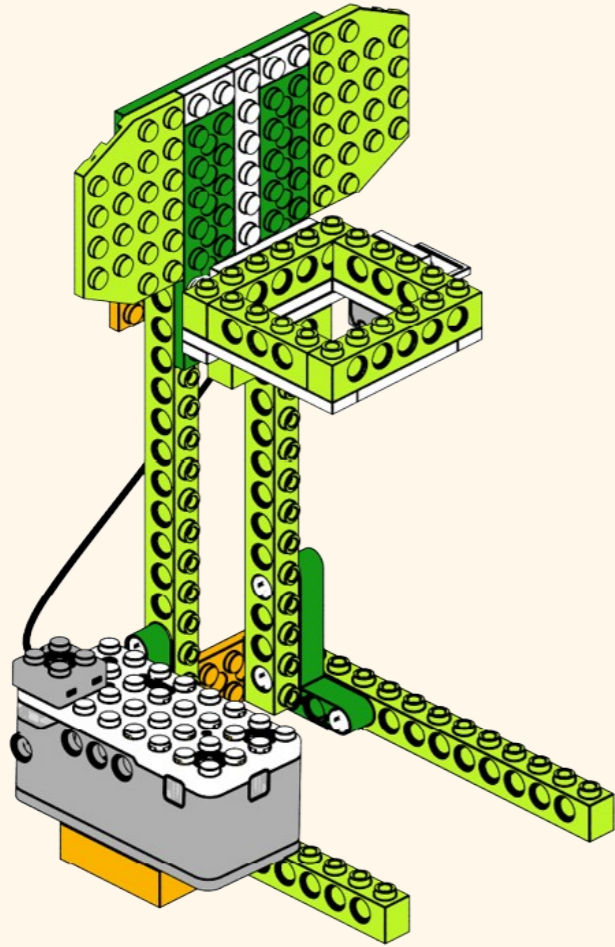
After the time is up



2. Basketball scoring programming



2. Have a try



**The game begins!
Let's see who can
get the higher
score! !**

1. Have a try

Try it: Can we see the score while playing?

```
when clicked
  set time to 0
  repeat 30
    wait 1 seconds
    change time by 1
  broadcast message1
```

```
when I receive message1
  say game over
  stop all
```

```
showText score
```

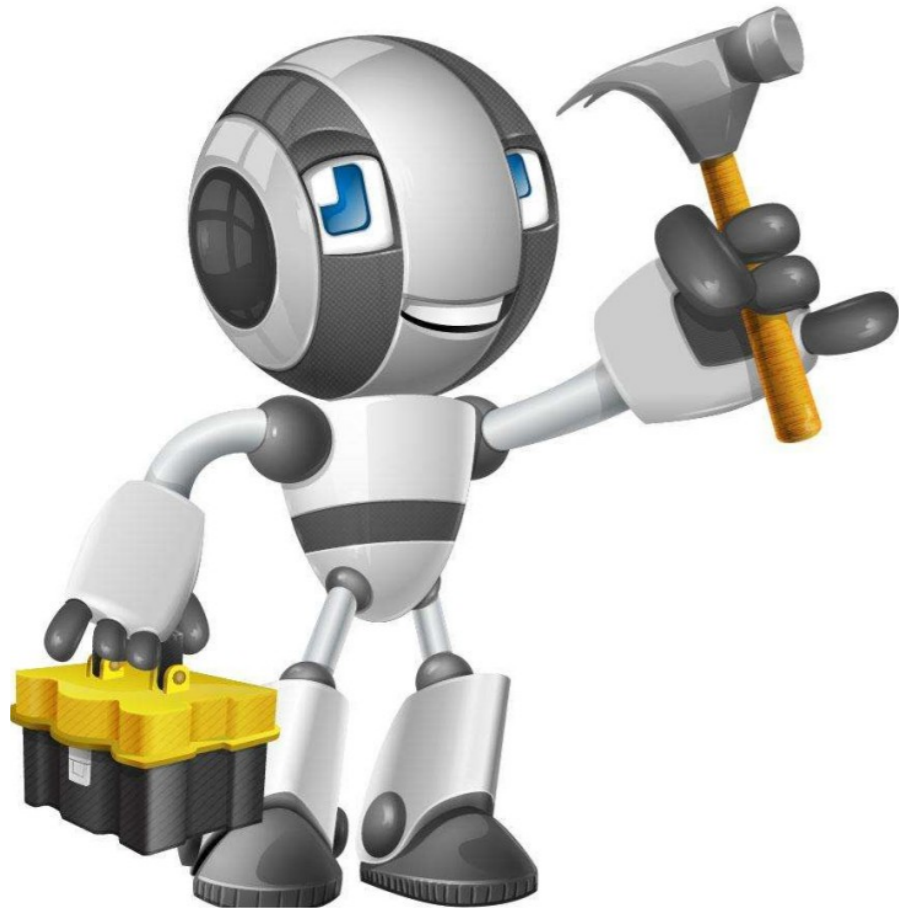


```
when clicked
  say game begin
  set score to 0
  forever
    if distanceSensor(0~6) sensor1 < 4 then
      change score by 1
      wait 1 seconds
      showText score
```



Consolidate and extend

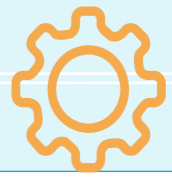
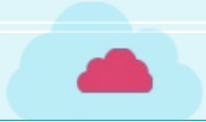
Q1 : Alex programmed the basketball hoop, but why isn' t the score increasing?



```
when clicked
say game begin
set score to 0
forever
if distanceSensor(0~6) sensor1 < 4 then
set score to 1
wait 1 seconds
showText score
```

**Q &
A**

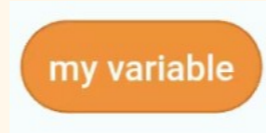
A1 : Because the score was set with 'set to' instead of 'change by.'



Knowledge Review

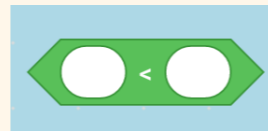


(1)

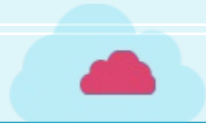


a variable value

(2)



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



Knowledge Review



(3)

microphone(0~10)

Receive volume

(4)

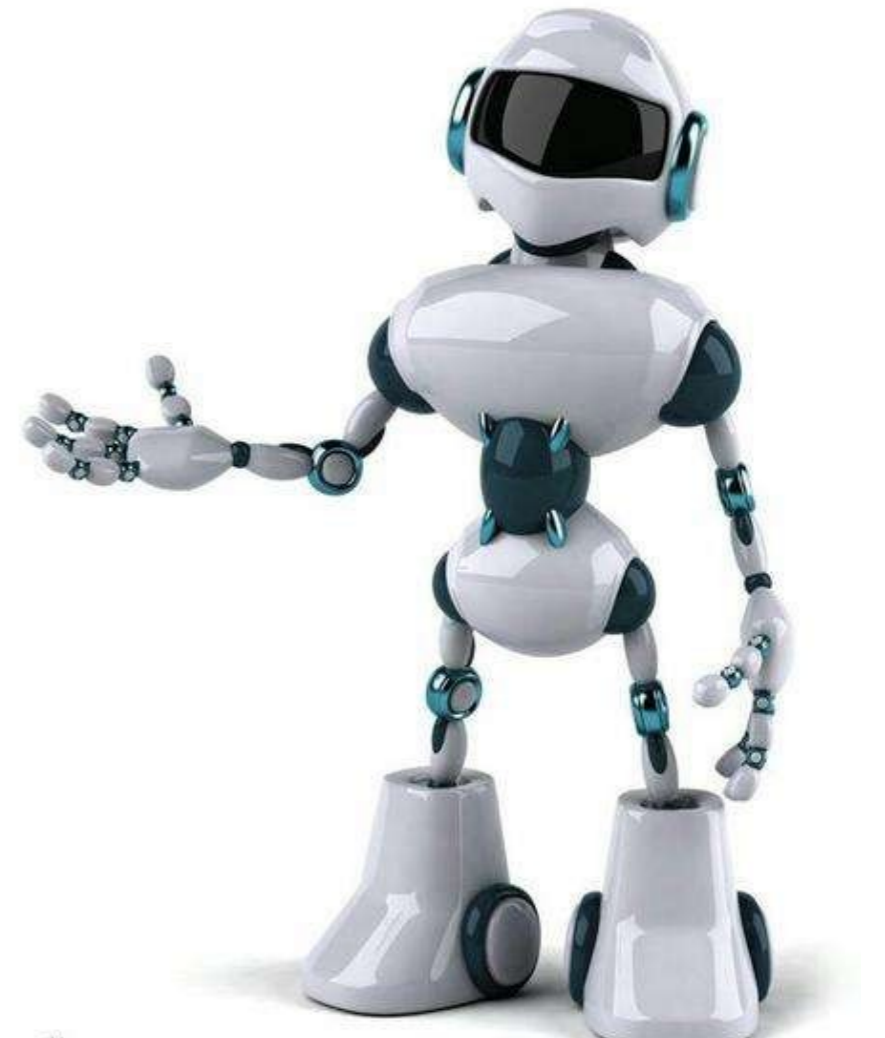
wait 1 seconds

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

Alex programmed the basketball hoop like this, but it keeps showing 30 every time. Why is that? ()

```
when clicked
  say game begin
  set score to 0
  forever
    if distanceSensor(0~6) sensor1 < 4 then
      set score to 1
      wait 1 seconds
  repeat 30
    wait 1 seconds
    change time by 1
  broadcast message1
when I receive message1
  say game over
  showText time
  stop all
```

- A** Because the score is set to 30.
- B** The time isn't up yet.
- C** It was showing the time instead of the score.
- D** The sensor is broken.



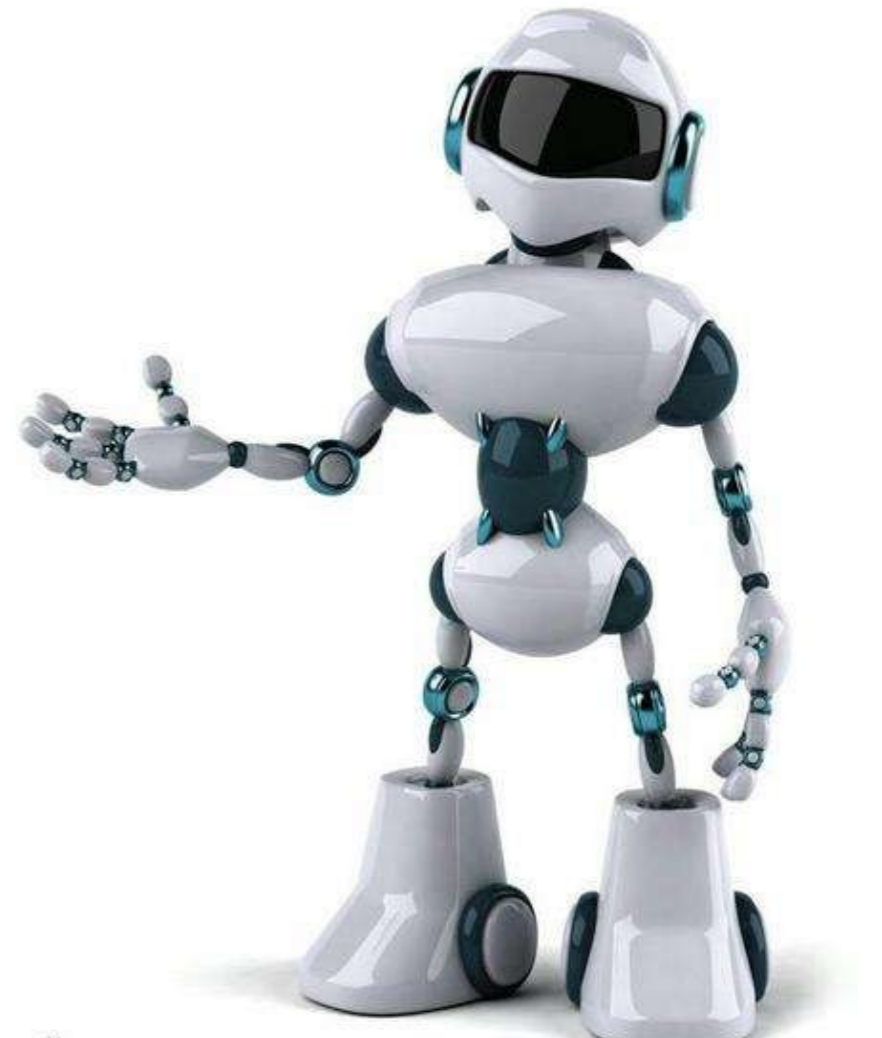
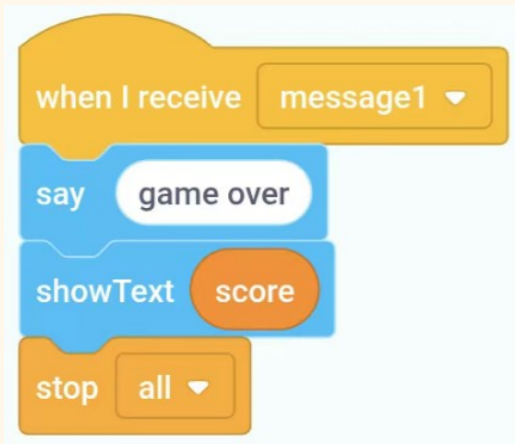


Answer
:

C

Analysis
:

Because it was showing the time at the end, it kept displaying 30 every time.





Talk





THANKS

