

Lesson 5: Two Variables

I can use more than one variable
in a program

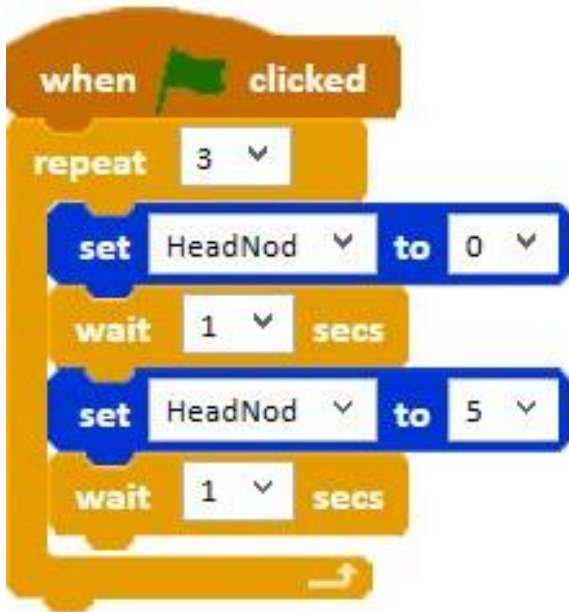


Activity 1

Can you write a program that uses repeat to make PicoH nod its head a number of times?



Example head nod



Activity 2

Can you write a program to make PicoH count the number of times it nods?



The image shows a sequence of code blocks in a Scratch-like environment:

- A grey block labeled "Make a Variable".
- An unchecked checkbox followed by a block labeled "head nod".
- A "set" block with "head nod" in a dropdown menu, "to" in the middle, and "0" in a dropdown menu.
- A "change" block with "head nod" in a dropdown menu, "by" in the middle, and "1" in a dropdown menu.
- A grey block labeled "Make a List".



File, Save As - countheadnod

Example

```
when clicked
  set head nod to 0
  repeat 10
    set HeadNod to 0
    wait 1 secs
    set HeadNod to 5
    change head nod by 1
    wait 1 secs
```



Activity 3

Can you extend your program to make PicoH blink a number of times, and count the blinks after it has nodded?

Make a Variable

blink

head nod

set blink to 0

change blink by 1

Make a List



Example

```
when clicked
  set head nod to 0
  set blink to 0
  repeat 3
    set HeadNod to 0
    wait 1 secs
    set HeadNod to 5
    change head nod by 1
    wait 1 secs
  repeat 4
    set LidBlink both to 0
    wait 1 secs
    set LidBlink both to 10
    change blink by 1
    wait 1 secs
```



File, Save As - countblink

Extension

Can you extend your program to make PicoH carry out a sequence of three movements and count the number of each?



Example

```

when clicked
  set eye turn to 0
  set head nod to 0
  set blink to 0
  repeat 3
    set HeadNod to 0
    wait 1 secs
    set HeadNod to 5
    change head nod by 1
    wait 1 secs
  repeat 4
    set LidBlink both to 0
    wait 1 secs
    set LidBlink both to 10
    change blink by 1
    wait 1 secs
  repeat 2
    set EyeTurn both to 0
    wait 1 secs
    set EyeTurn both to 10
    change eye turn by 1
    wait 1 secs
  set EyeTurn both to 5
  
```



File, Save As - countkeepfit