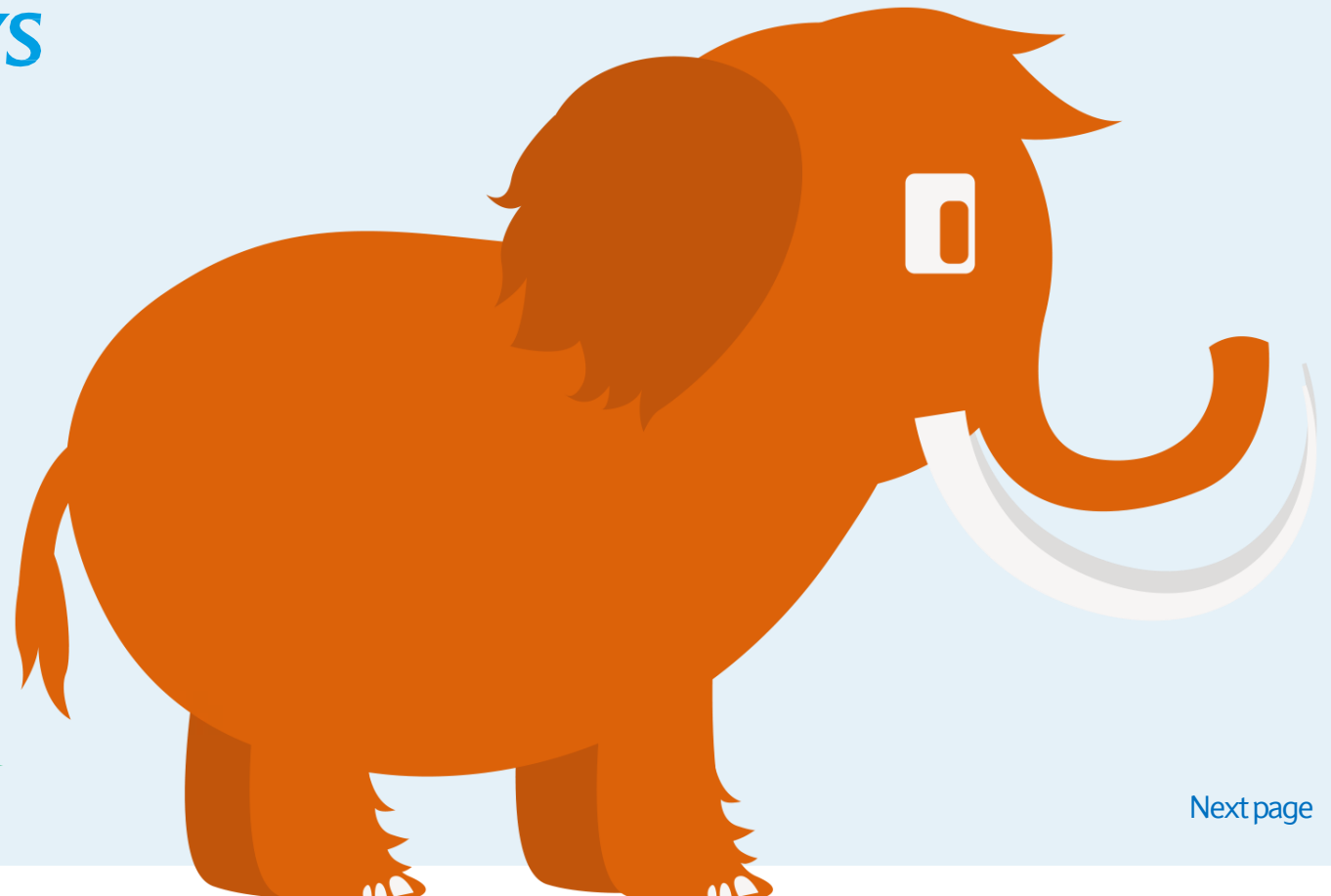


Student workbook

BBC micro:bit

pet

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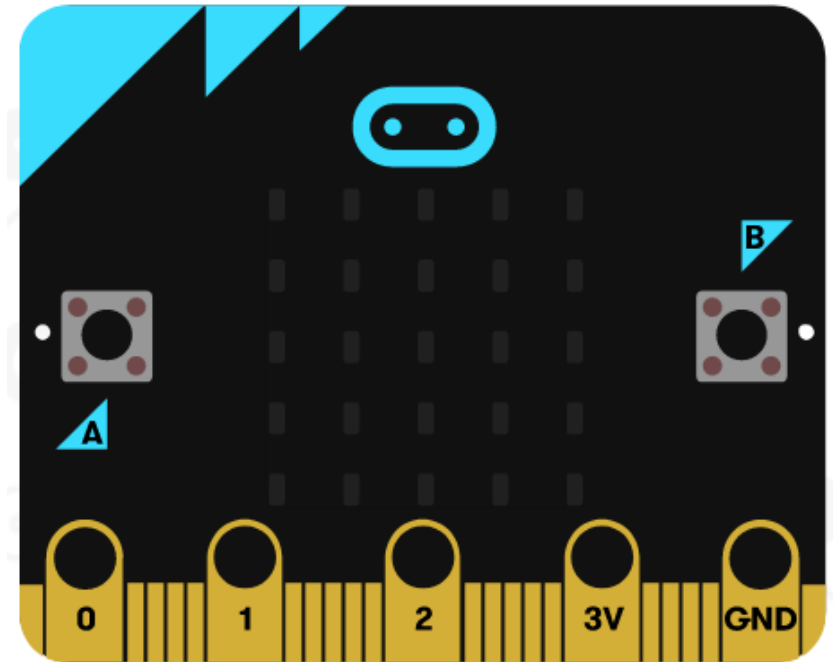
BBC micro:bit project

In this project you'll create a virtual pet using the BBC micro:bit. Once it's been coded you'll need to pay attention to your pet to keep it happy.

We'll be using the micro:bit coding editor for this project. Don't have a micro:bit? That's ok you can use the emulator on the coding editor. Visit the 'Let's code' page to choose your editor:

<https://microbit.org/code/>

Hope you enjoy the workbook!



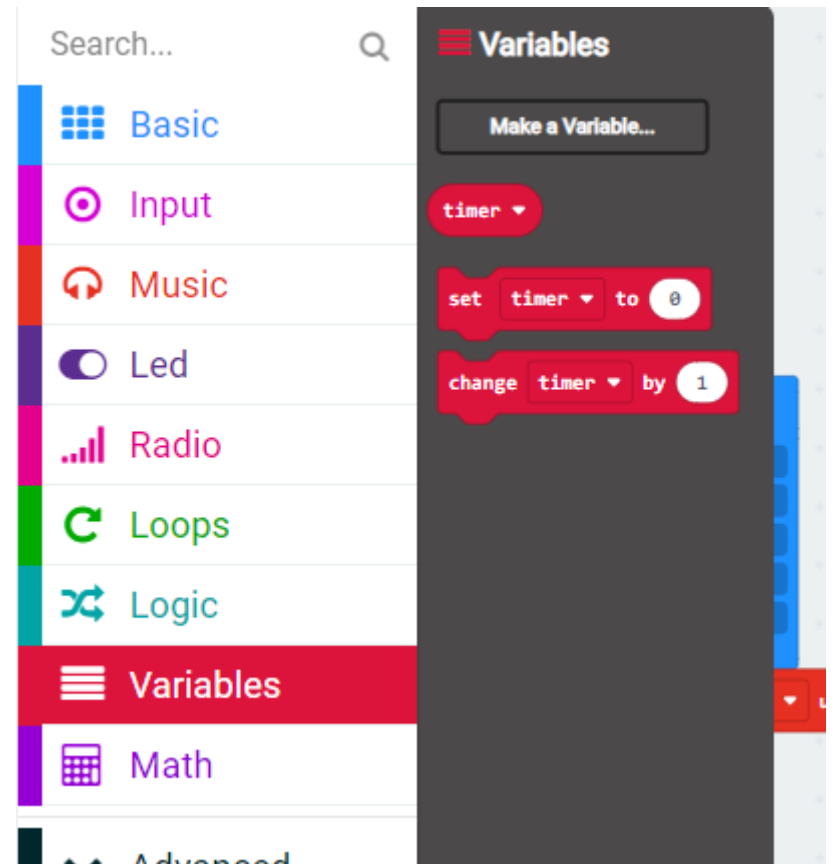
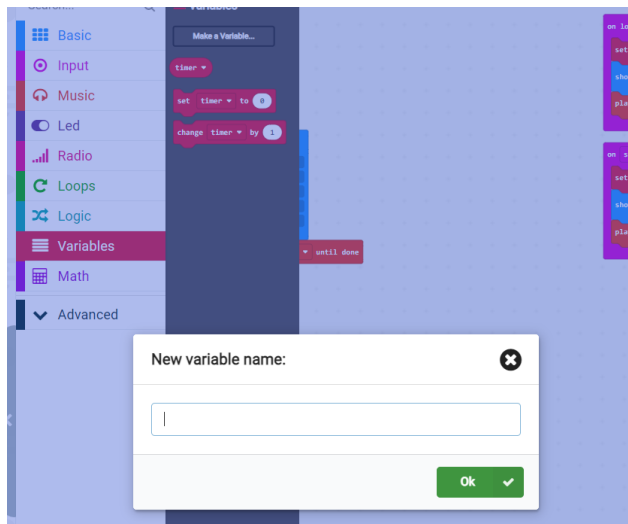
Micro:bit pet

BBC micro:bit project

Step 1

First we need to create a variable which you'll use throughout the project. Name your variable 'Timer'.

A variable is a container within your project that holds information that you can use in your code. Things like the score and timer in a game are good examples of variables.



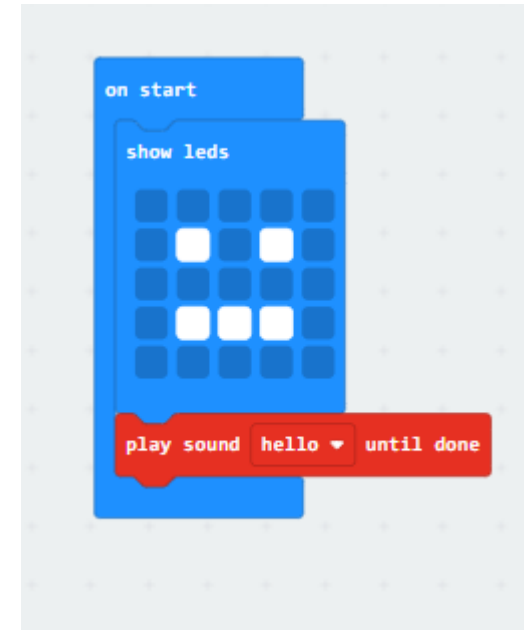
Micro:bit pet

BBC micro:bit project

Step 2

When starting our micro:bit, we want the pet to show a face without any emotions and to say “Hello”. Add this code to your project.

Use the ‘Music’ tab to get the “Play sound (Hello) until done” block.



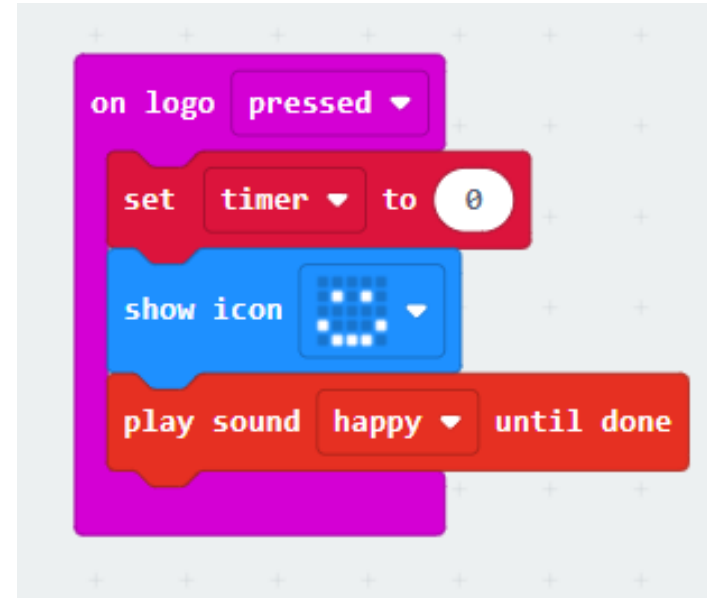
Micro:bit pet

BBC micro:bit project

Step 3

When we touching the sensor at the top of the micro bit we want the pet to be happy and show a smiley face as a reaction.

Add this code to make you pet show the happy emotion.



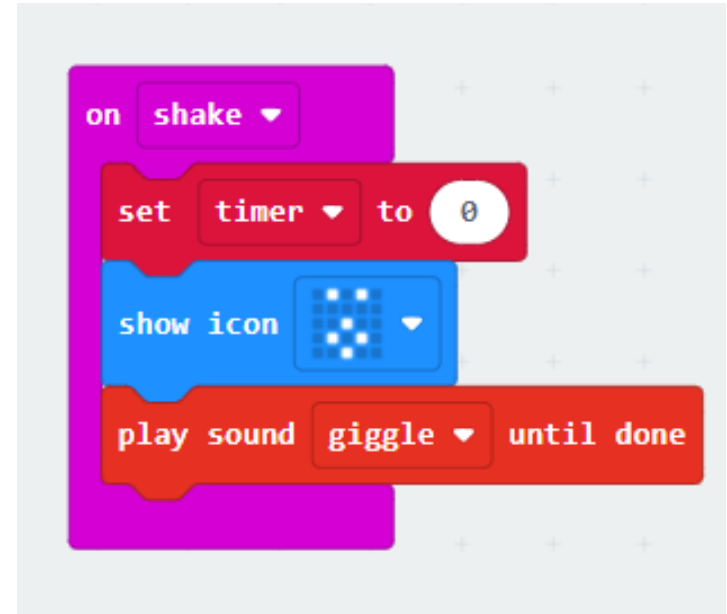
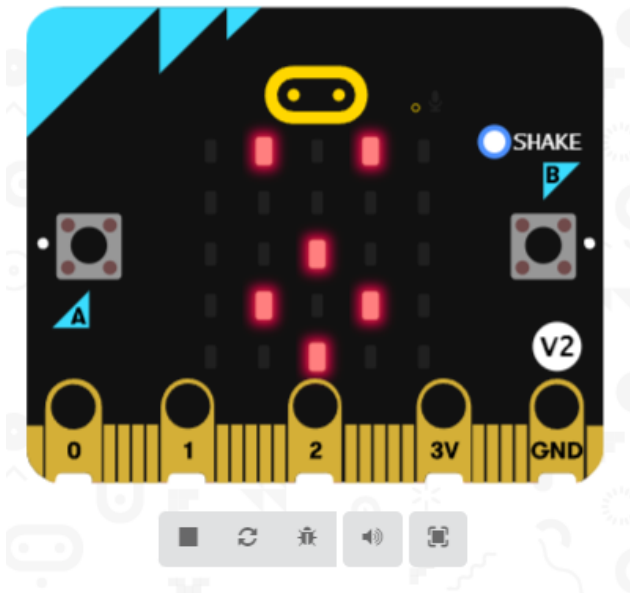
Micro:bit pet

BBC micro:bit project

Step 4

By using the shake function on the micro:bit we can create code to make our pet giggle and show a giggling reaction.

You can click the shake button on the micro:bit emulator in the coding editor to run this code.



Micro:bit pet

BBC micro:bit project

Step 5

Add this code to set up more actions which happen when you stop interacting with your pet. Be careful not to leave it too long!

Stage 1 – Sad face

Stage 2 – Yawn

Stage 3 – It's dead.



```
forever
  pause (ms) 1000
  change timer by 1
  if < timer = 20 > then
    show icon [sad face]
    play sound sad until done
  if < timer = 30 > then
    show icon [yawn]
    play sound yawn until done
  if < timer = 40 > then
    play sound mysterious until done
    set built-in speaker OFF
    while true
      do
        show icon [dead face]
```

Micro:bit pet

BBC micro:bit project

Level up!

- Think about what other features you can give your pet. Can you add more emotions?
- Or give your pet a longer life span?
- Most pets need food, can you add a feeding function?
- Look at how you can make the coding more efficient / use less blocks

Notes

Code Playground

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