

## Micro Python

# Hello World

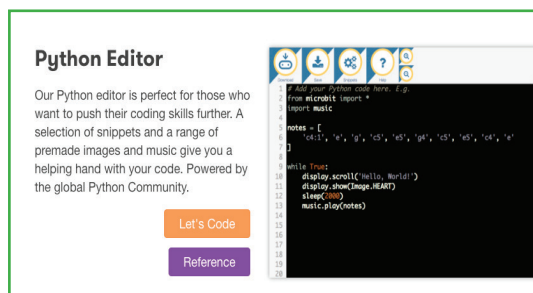
01

- Create your first Micro Python program for the micro:bit
- Show an LED scrolling message



10 mins

## 1. Visit the micro:bit website



Go to [www.microbit.org/code](http://www.microbit.org/code)

Scroll down to *Python Editor* and click the orange *Let's Code* button beneath it.

The code editor will open.

## 2. Examine the code

```
# Add your Python code here. E.g.  
from microbit import *
```

```
while True:  
    display.scroll('Hello, World!')  
    display.show(Image.HEART)  
    sleep(2000)
```

The code editor will already contain a Python program. Lets have a look at it.

```
from microbit import *
```

Loads a *library* containing code to make your program work with the micro:bit. You should not remove this.

```
while True:
```

Causes the section of program below it to *iterate* (or *loop*) forever.

Note that the code below this statement is indented by **four spaces**. This shows the compiler that it is part of the same block of code as the `while True:` statement

Read through the remaining lines of code. What do you think they do?

## 3. Download the code

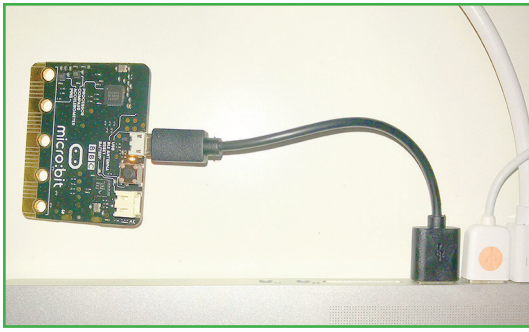


To see what the code does, we need to copy it to our micro:bit.

Press the *Download* button. A file called **microbit.hex** will be downloaded to your computer.

Once the download has completed, locate it. It will typically have been saved in the Downloads folder.

## 4. Connect your micro:bit

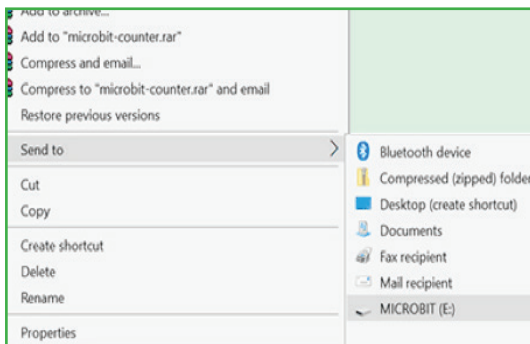


Connect your micro:bit to a spare USB port on your computer.

Your micro:bit may already have a program on it, so don't be surprised if the LEDs light up and show text or images.

It may take a little while for your computer to recognise and install the software it needs to communicate with the micro:bit

## 5a. Install your code (Windows users only)



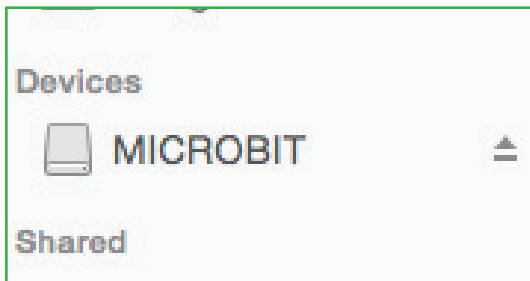
Navigate to your computer's *Downloads* folder and find *microbit.hex*

Click on it once, using the **right** mouse button. From the menu, select **send to...**, then **MICROBIT (E)**: (note: your device may have a different letter)

The file will take a short while to copy to the micro:bit. During this time, the yellow LED on its reverse will flash.

When copying has completed, your program will run.

## 5b. Install your code (Mac users only)



Navigate to your computer's *Downloads* folder and find *microbit.hex*

An icon for the micro:bit will have appeared in the Finder's sidebar (under devices). It may also have appeared on the Desktop.

Drag *microbit.hex* onto the micro:bit device icon.

The file will take a short while to copy to the micro:bit. During this time, the yellow LED on its reverse will flash.

When copying has completed, your program will run.

## 6. Modify your code

Now it's your turn to change the code! Here are some suggestions:

- Change **Hello, World!** to print your name.
- There are some built-in images. The example uses **HEART**. A full list is here: <https://microbit-micropython.readthedocs.io/en/latest/tutorials/images.html>
- Add another line of text after the heart image.

Every time you make a change to your program, you will need to download it and copy it to the micro:bit.

**Well done!**