

Make your own simple animation

Create a basic two-frame animation with the BBC micro:bit, triggered by pressing button A.

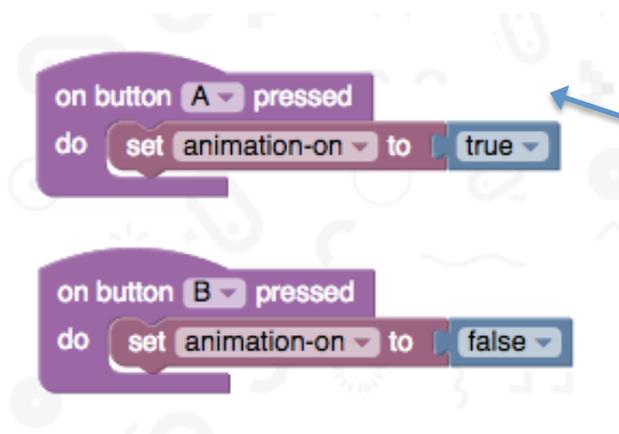
Step 1: Import the code

Click on the hex file link on the Live Lessons website to view the code on the BBC micro:bit website (www.microbit.co.uk).

The script for your animation should now appear in your code window.

Hit 'run' to see it in action on the simulator, or plug in your BBC micro:bit, hit 'compile' and drag the hex file onto your micro:bit. Press button A and see the simple two-frame animation play.

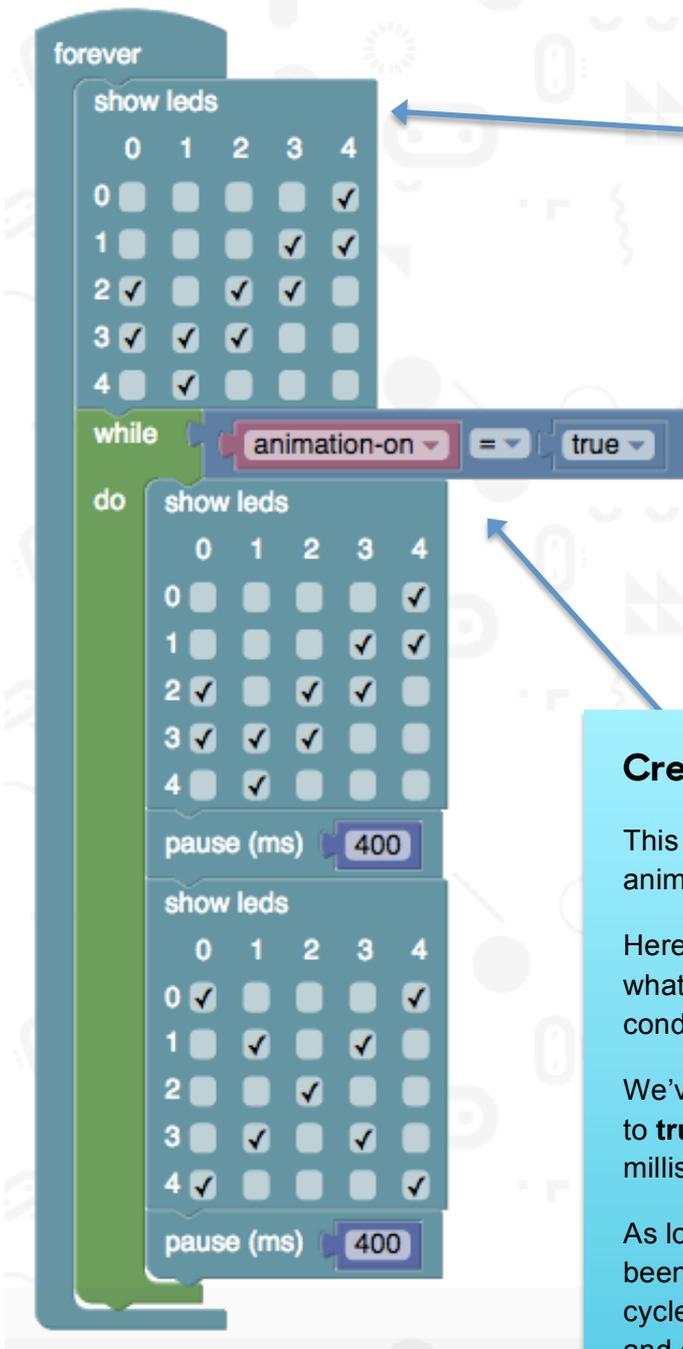
Step 2: Understanding the code



What happens when you press the buttons?

This is the part of the program which sets out what happens when you press the buttons on your BBC micro:bit.

Here we've introduced a **variable** **animation-on**, and said that when you press button A, **animation-on** is **true**, and when you press button B, **animation-on** is **false**.



What do you see when you first start up the BBC micro:bit?

This is the part of the program which decides what happens when you first start up your micro:bit.

We've introduced a **loop** that goes on **forever**, and programmed the LEDs to show the image of a tick before any button is pressed. You can change the LEDs selected under **show leds** to design your own picture.

Creating your animation

This is the part of the program where you design your animation.

Here we've introduced a **while loop**, which means that whatever is in the **loop** keeps happening while a condition is fulfilled.

We've said that while the **variable animation-on** is set to **true**, the BBC micro:bit displays a tick for 400 milliseconds, then a cross for another 400 milliseconds.

As long as **animation-on** remains true (button A has been pressed and button B hasn't yet), the program cycles through the two images one after another over and over again, creating a simple two-frame animation.

You can change the LEDs selected under show leds to design your own animations.

Test, play and show us what you've done

Now that you've made your very own two-frame animation, click 'run' to test it on the simulator and 'compile' to see it working on your micro:bit.

Click 'export' to save off your code and send it to us at live.lessons@bbc.co.uk. You could see your animations featured on our **Strictly micro:bit Live Lesson** on the 24th of March.