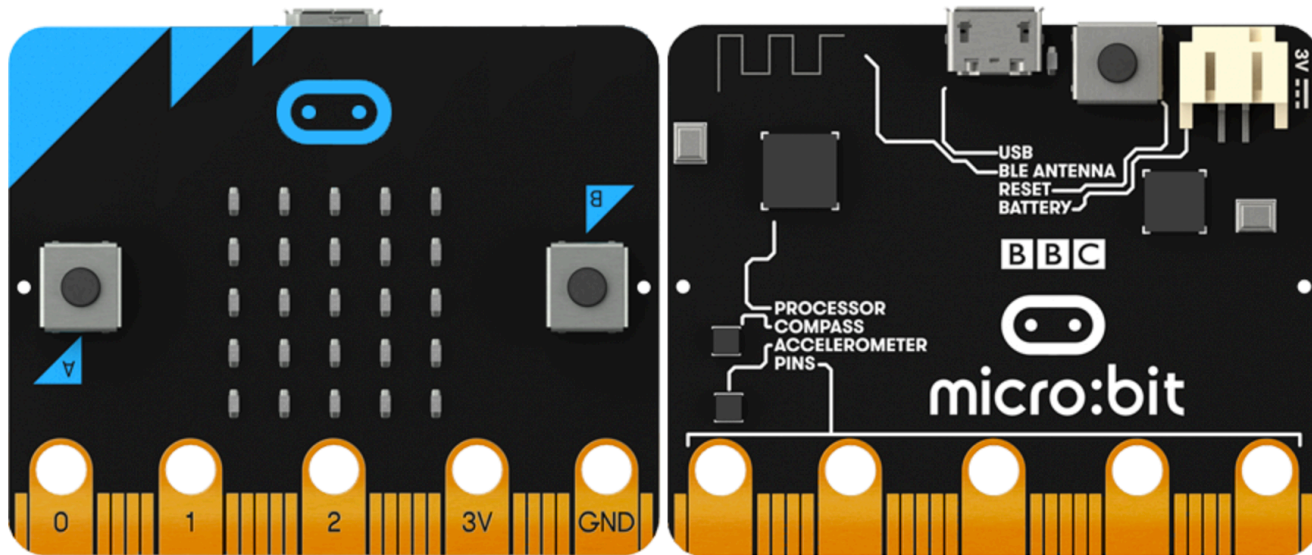



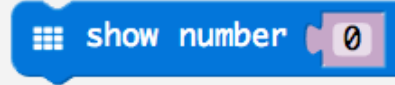


PLAY CODING



Contents

- About the BBC micro:bit
- Basic Block 
- Flashing heart
- Smiley button
- Love meter
- Rock Paper & Scissors



basic

Provides access to basic micro:bit functionality.



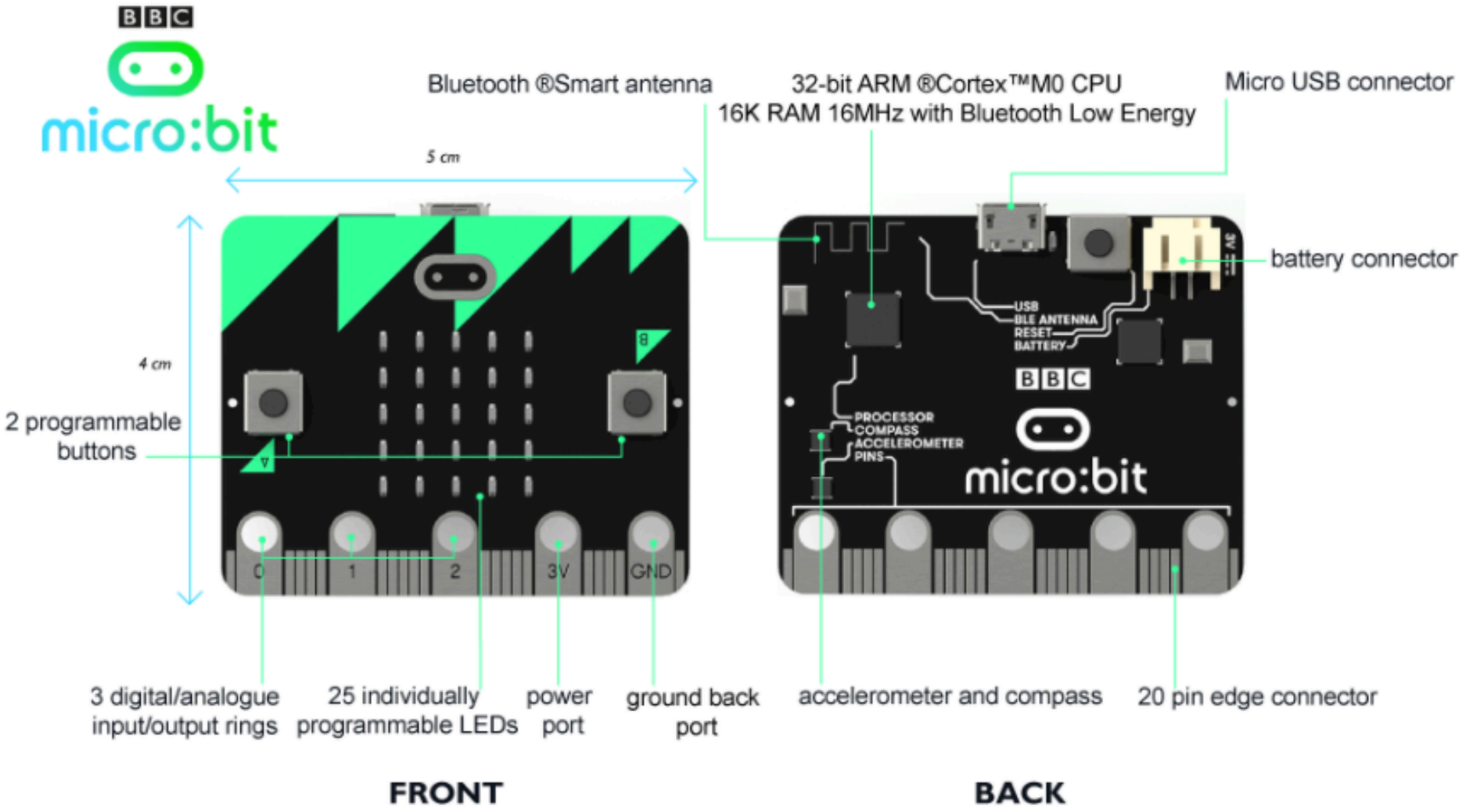
Flashing Heart



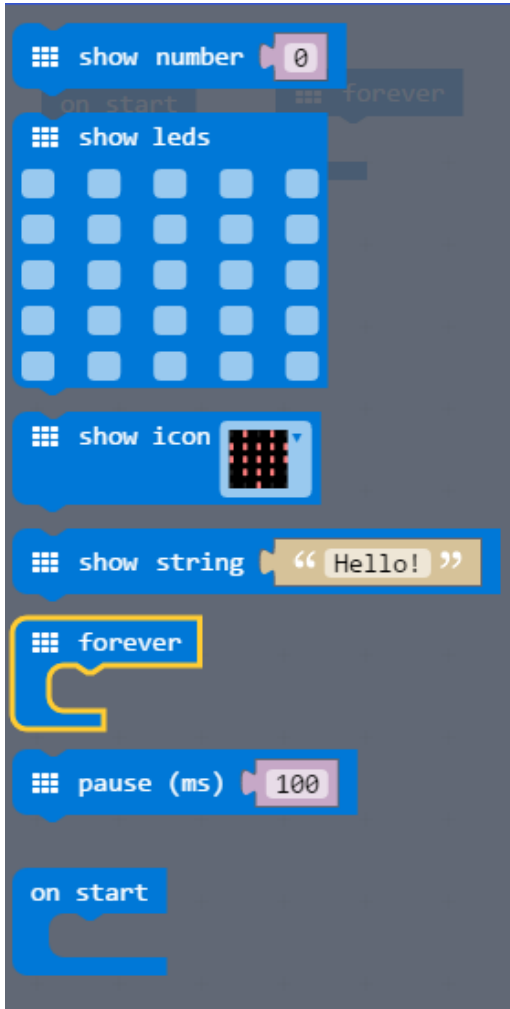
Smiley Buttons



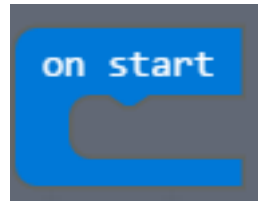
Love Meter



The screenshot displays the BBC Micro:bit online coding environment. At the top, there is a navigation bar with the 'micro:bit' logo, 'Projects', 'Share', 'Blocks', and 'JavaScript' tabs, along with help, settings, and Microsoft logos. On the left, a digital simulator of the Micro:bit board is shown with a yellow label 'Simulator' below it. In the center, a vertical menu of 'Command Block' categories is visible, with a yellow label 'Command Block' at the bottom. The right side features a 'Block Coding - Play ground' area with a grid and a yellow label 'Block Coding - Play ground'. At the bottom, there is a 'Download' button with a yellow label 'Download to micro:bit' below it, a search bar containing 'mag', and navigation icons.

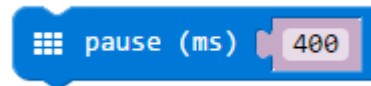


Keep running part of a program [in the background](#).



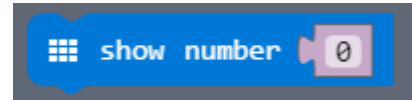
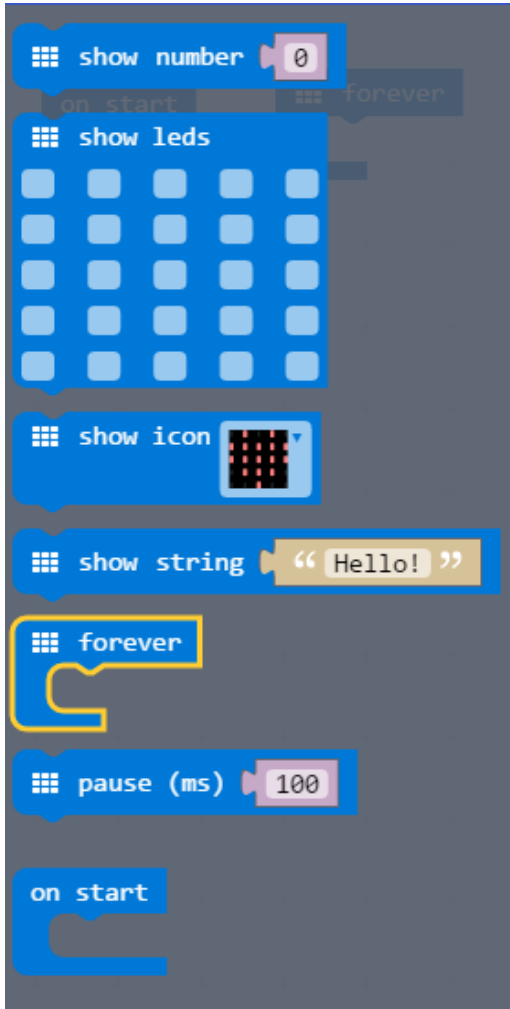
An event that runs when the program starts.

The **on start** is a special event that runs when the program starts, before any other event. Use this event to initialize your program.

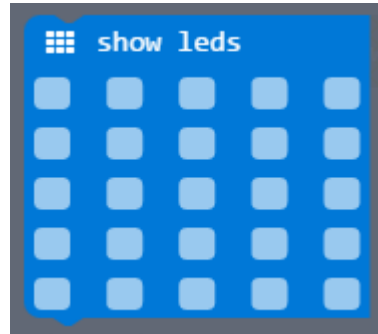


Pause the program for the number of milliseconds you say. You can use this function to slow your program down.

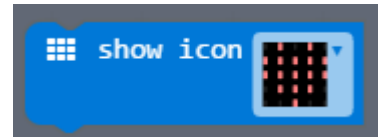
- **ms is the number of milliseconds that you want to pause**
- **(100 milliseconds = 1/10 second, and 1000 milliseconds = 1 second).**



Show a number on the [LED screen](#).
It will slide left if it has more than one digit.



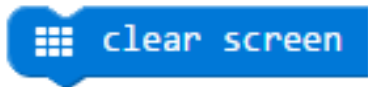
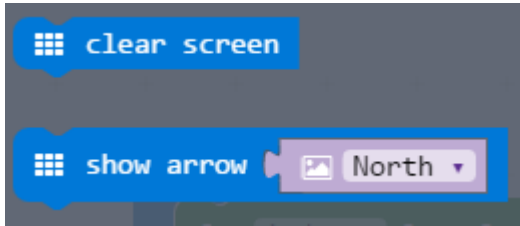
Shows a picture on the [LED screen](#).



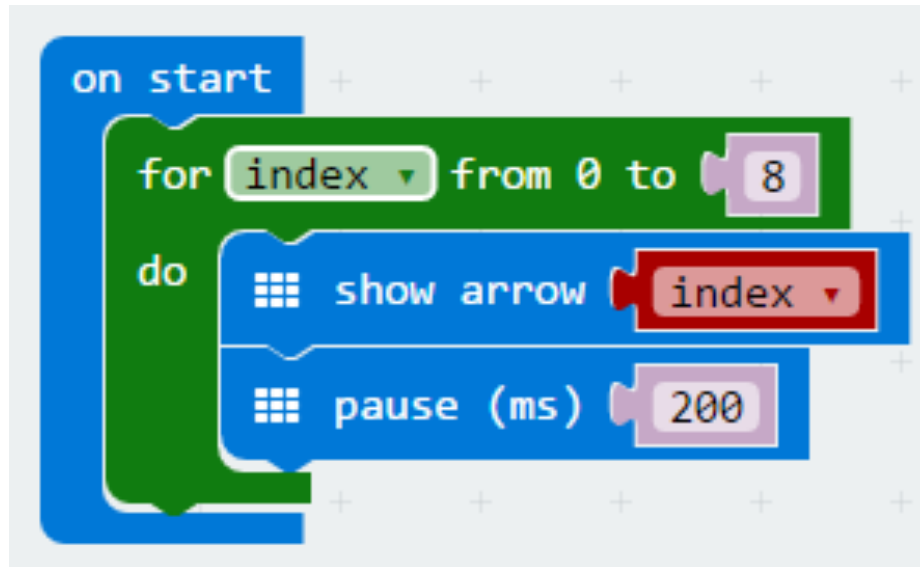
Shows the selected icon on the LED screen

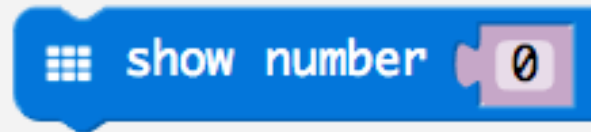


Show a number on the [LED screen](#). It will slide left if it is bigger than the screen.



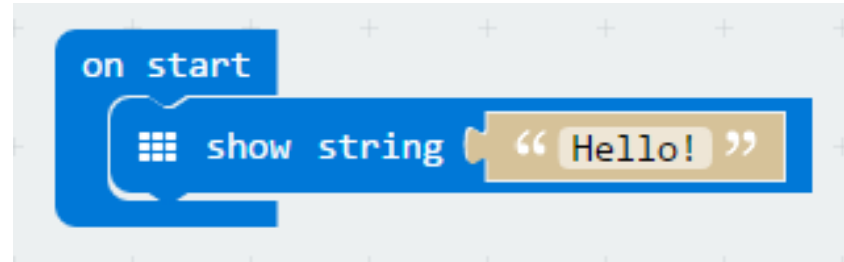
Turn off all the LED lights on the [LED screen](#).

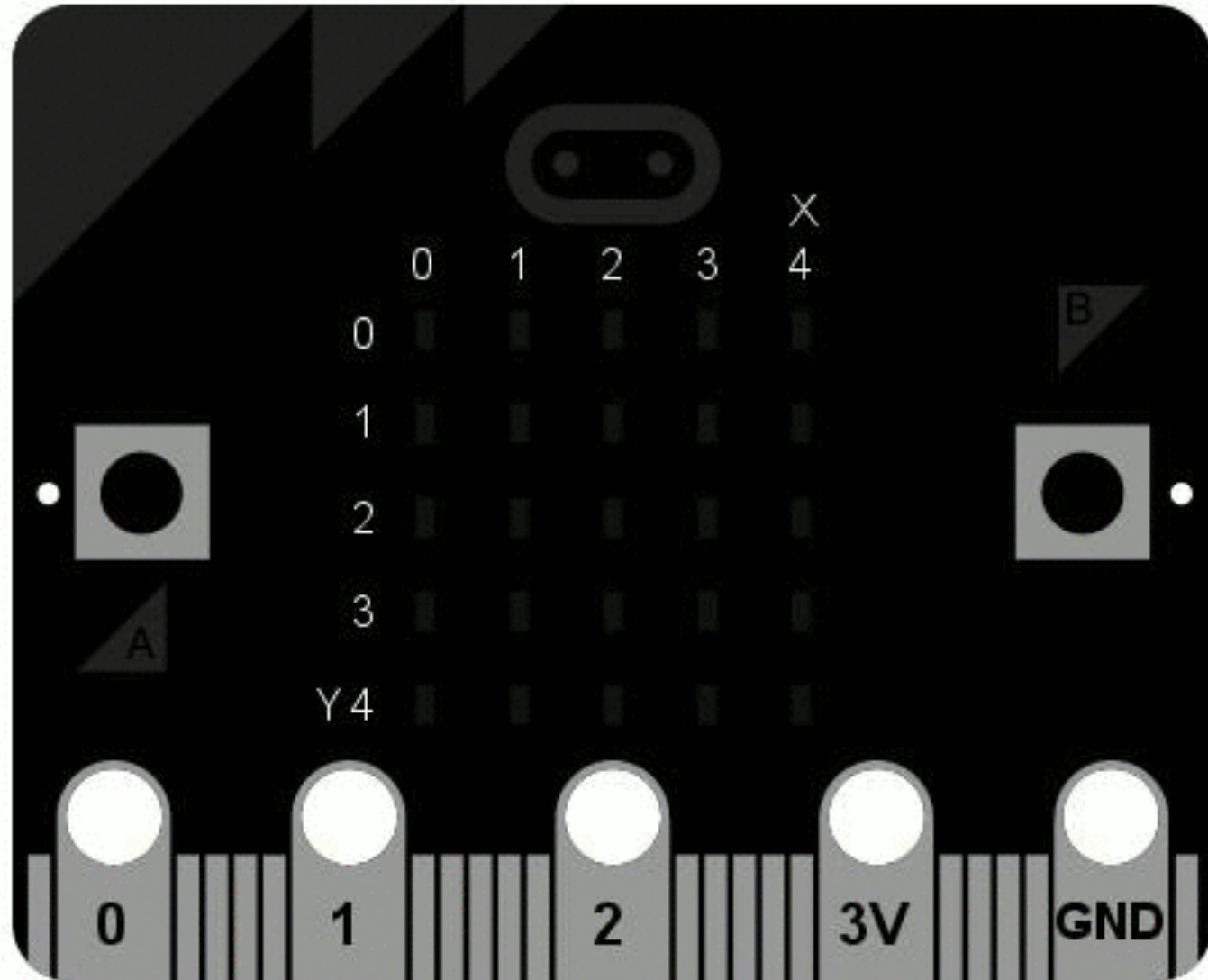




basic

Provides access to basic micro:bit functionality.





1. Go to the webpage at <http://microbit.org/>

The screenshot shows the homepage of the micro:bit website. The browser's address bar displays "microbit.org". The navigation menu includes "About", "Get Started", "Let's Code", "Ideas", "Teach", "Education", and "Shop". The "Let's Code" link is highlighted with a red box and an orange arrow pointing to it from the instruction above. The main banner features a background image of a Doctor Who character, a micro:bit board, and a TARDIS. The text "GET CREATIVE, GET CONNECTED, GET CODING." is prominently displayed. Below this, there are two purple buttons: "Get Started" and "Let's Code". The "Let's Code" button is highlighted with a red box and an orange arrow pointing to it from the instruction below. At the bottom, there are three small promotional images for "DOCTOR WHO with micro:bit" featuring a robot, a circuit diagram, and the Doctor.

2. Click "Let's Code"

3. JavaScript Blocks Editor (PXT)

Let's Code | micro:bit

microbit.org/code/

Language ▾ 🔍

About Get Started **Let's Code** Ideas Teach Education Shop

Power your imagination with code

We've got some exciting [new features and editors!](#) Don't worry, the tools you're used to are still available. [See the old editors](#)

JavaScript Blocks Editor (PXT)

Micro:bit's new JavaScript editor makes it easy to program your micro:bit in Blocks and JavaScript, along with great new features like peer-to-peer radio.

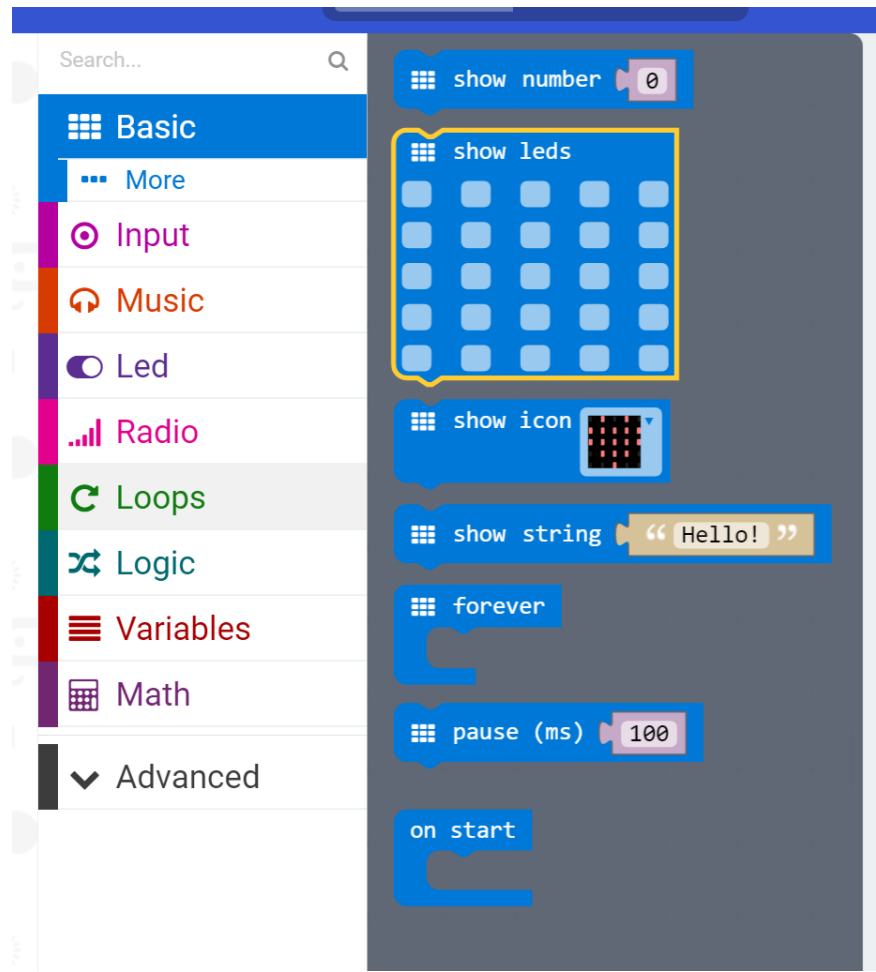
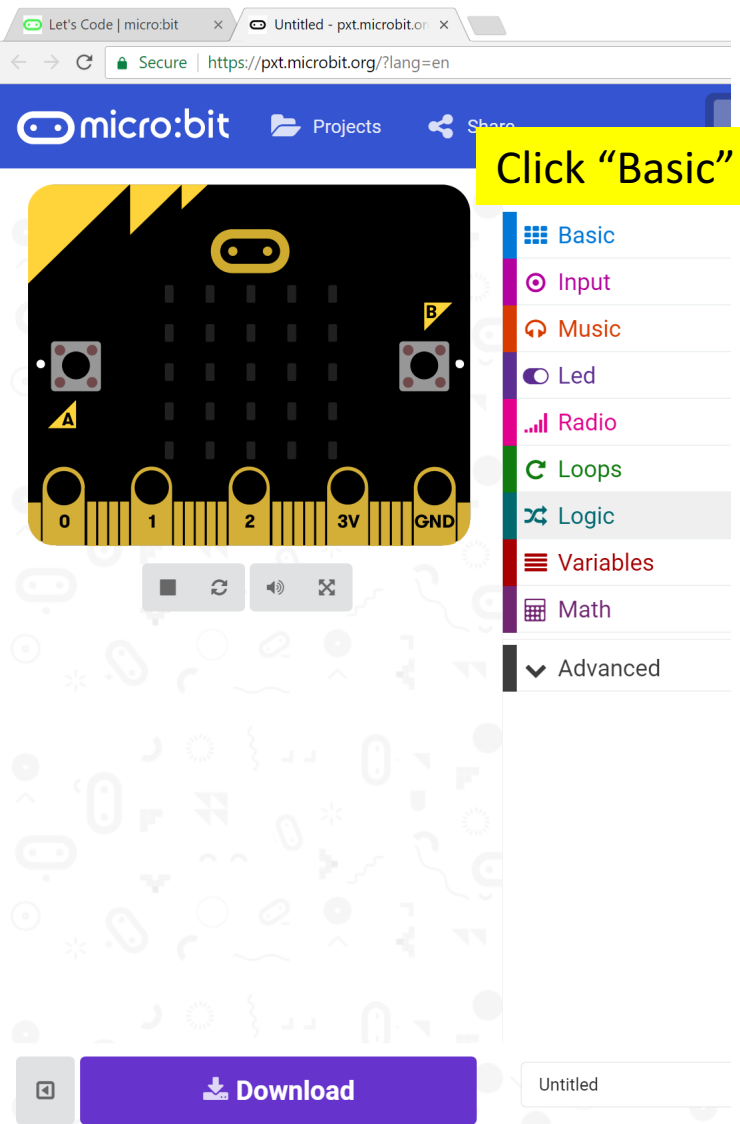
Click "Let's Code"

Let's Code

Reference

Lessons

4. JavaScript Blocks Editor (PXT)



4. JavaScript Blocks Editor (PXT)

micro:bit Projects Share Blocks JavaScript

Search...

- Basic
- Input
- Music
- Led
- Radio
- Loops
- Logic
- Variables
- Math
- Advanced

on start

show leds

1

2

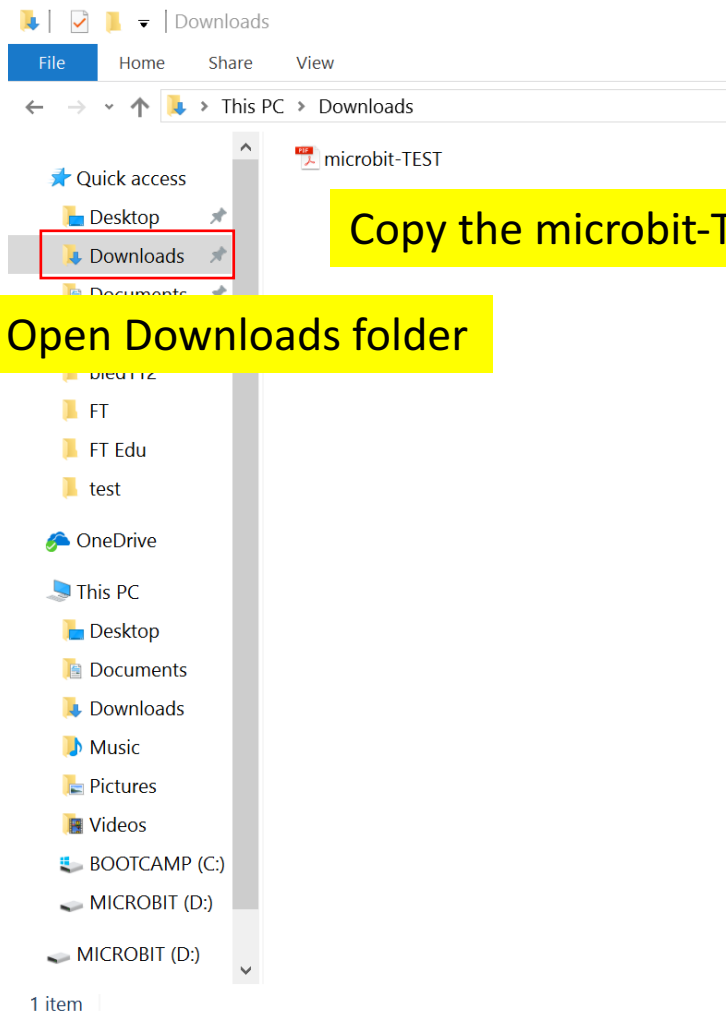
Download

TEST

Click the Download

Write the file name and save

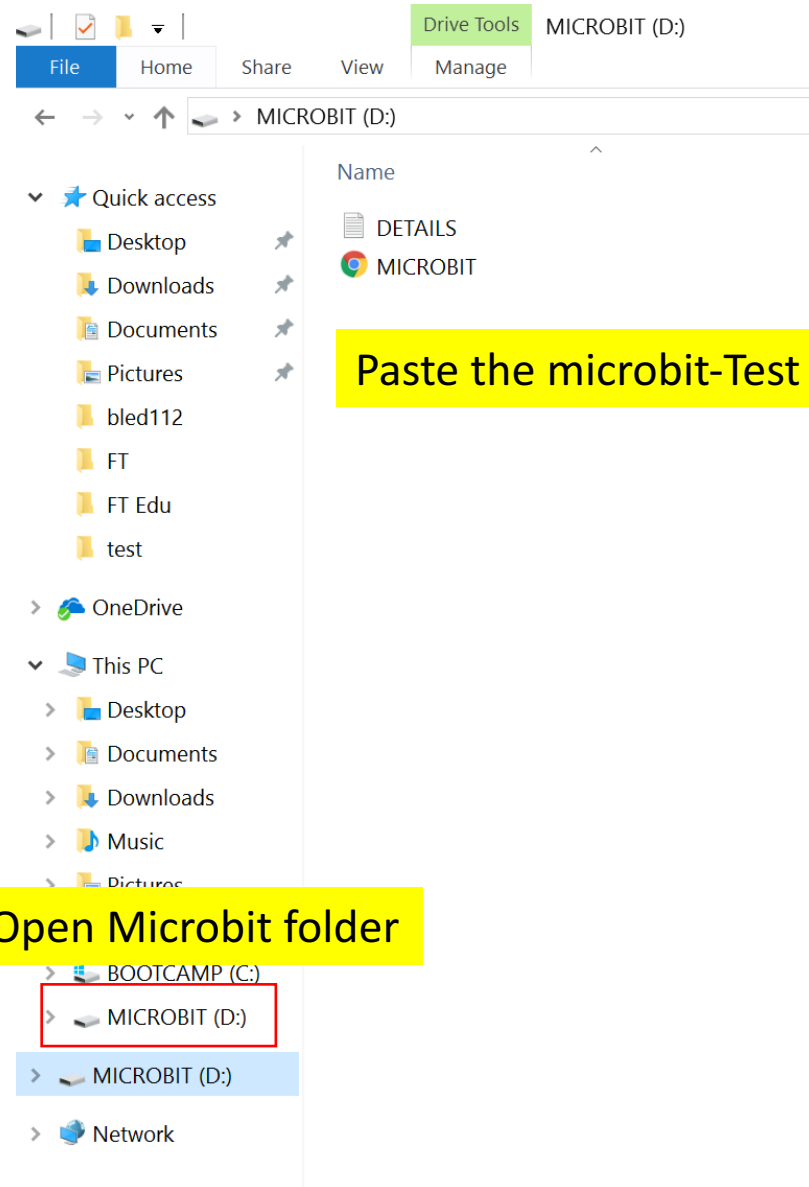
5. Open download folder



Copy the microbit-Test file

Open Downloads folder

6. Open microbit folder



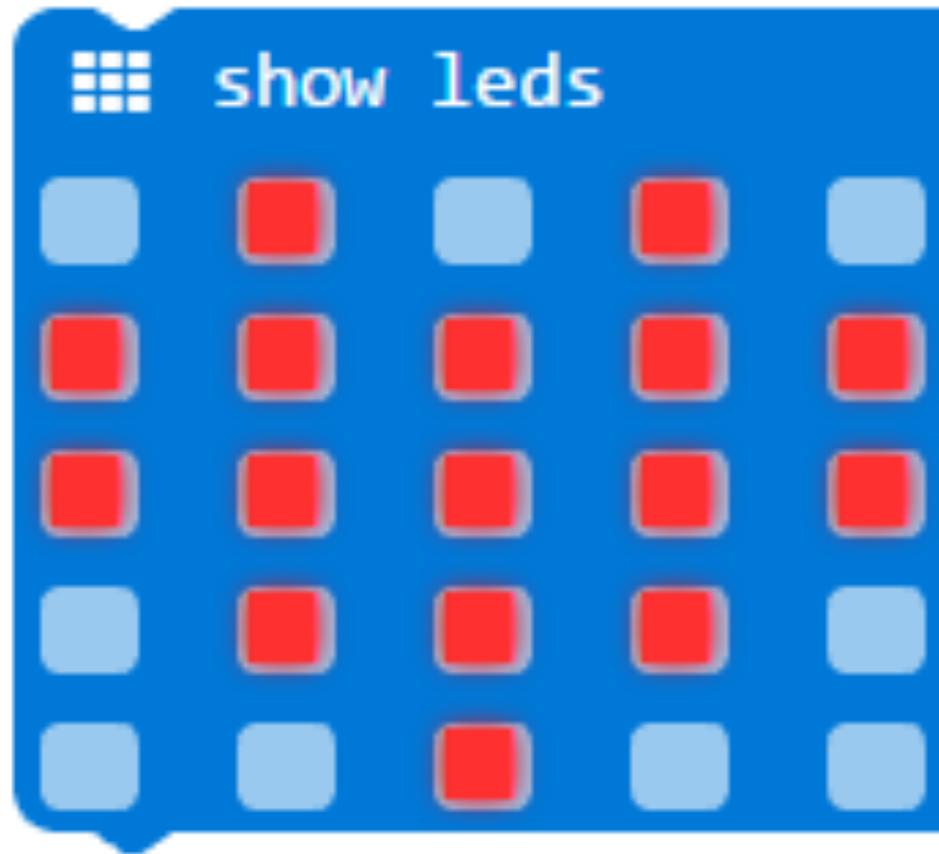
Paste the microbit-Test file

Open Microbit folder



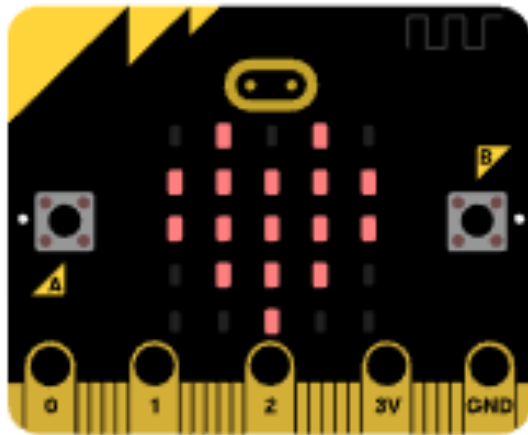
Flashing Heart

Place the show leds block and paint a heart.



Step 2

Click Download to transfer your code in your micro:bit!

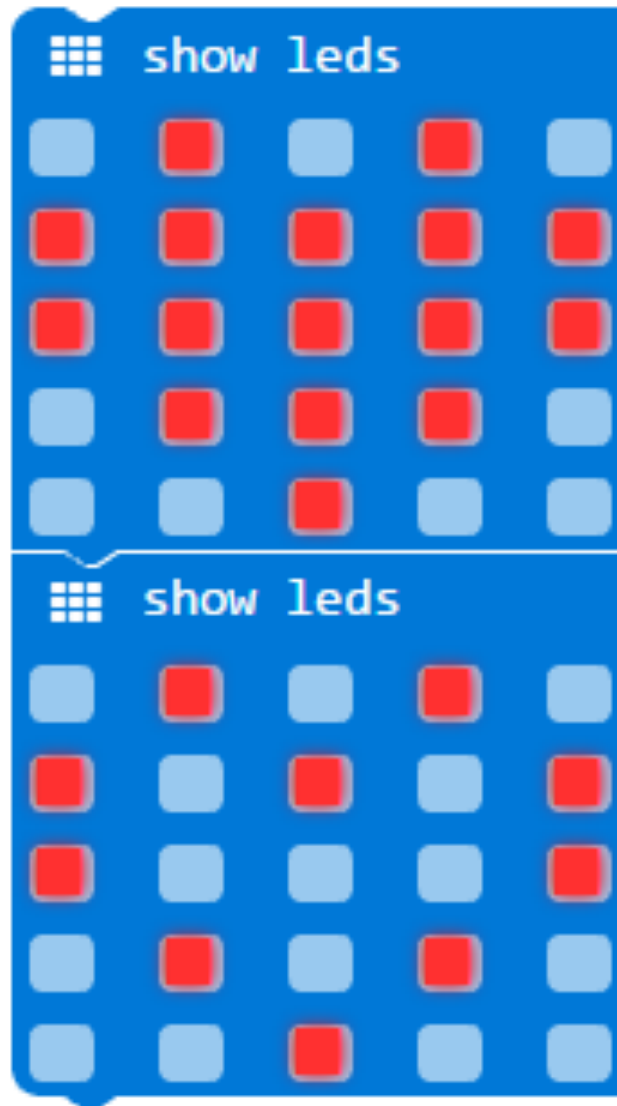


 **Download**

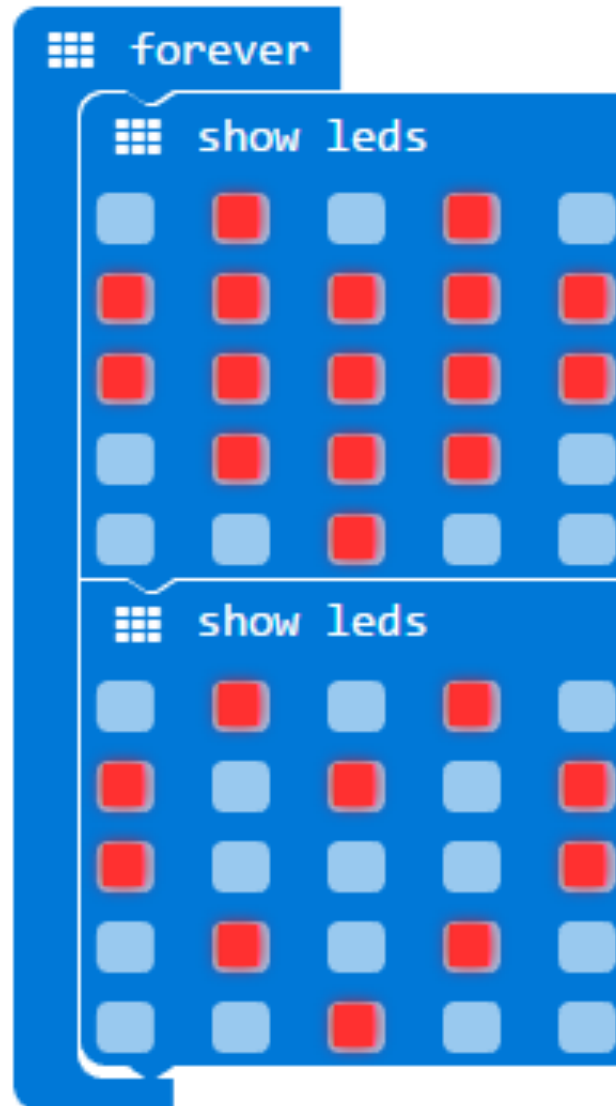
-flashing-heart



Place another show leds block under the heart to make it blink.

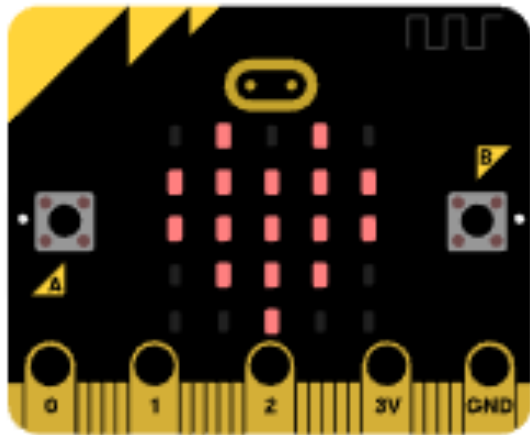


Place the blocks inside the forever to repeat the animation.



Step 5

Click Download to transfer your code in your micro:bit!

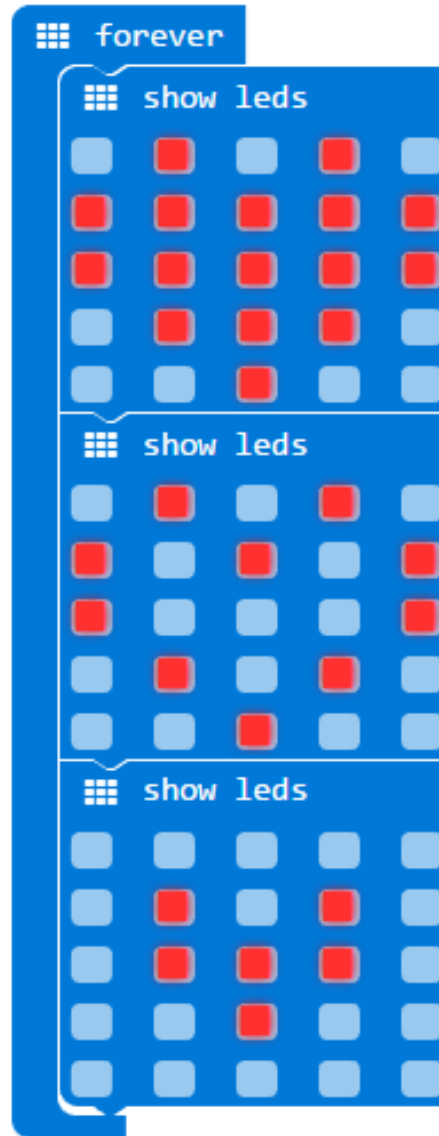


 **Download**

-flashing-heart

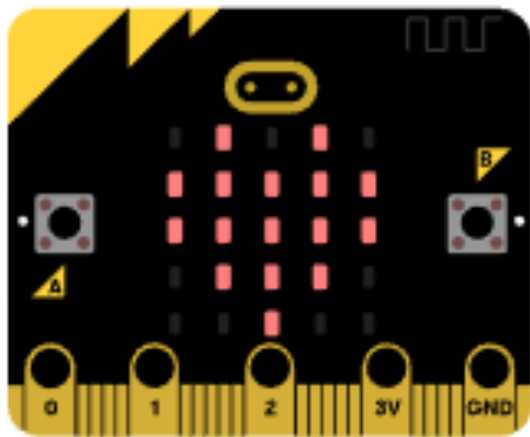


Place more show leds blocks to create your own animation.



Step 7

Click Download to transfer your code in your micro:bit!



 **Download**

-flashing-heart





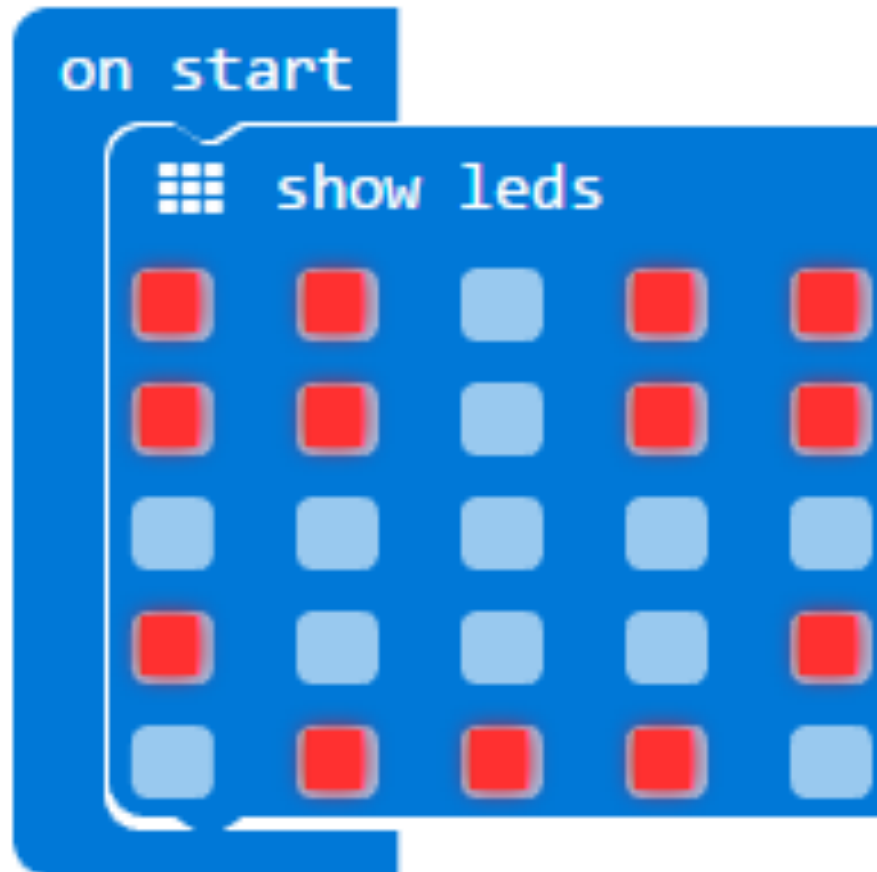
Use buttons to show a smiley face!



Smiley Buttons

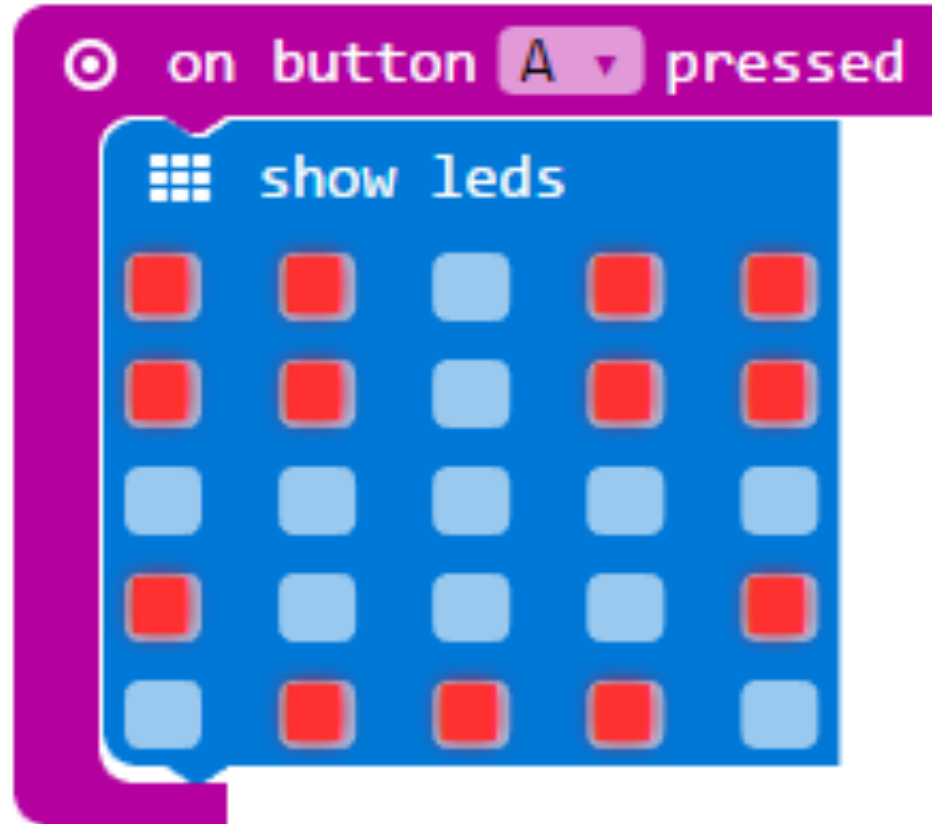
Step 1

Use [show leds](#) to make a smiley face:



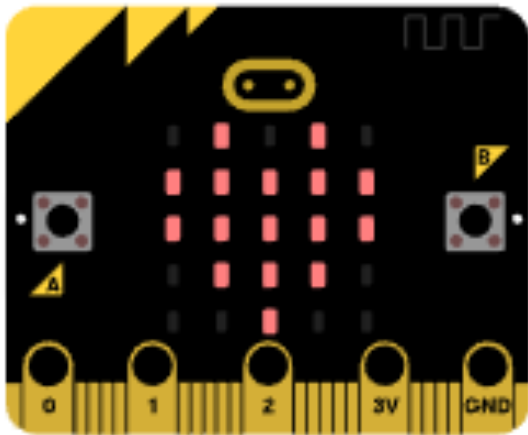
Step 2


Add an input block for when [button A is pressed](#), and **move** the smiley face inside it:



Step 3

Click Download to transfer your code in your micro:bit!

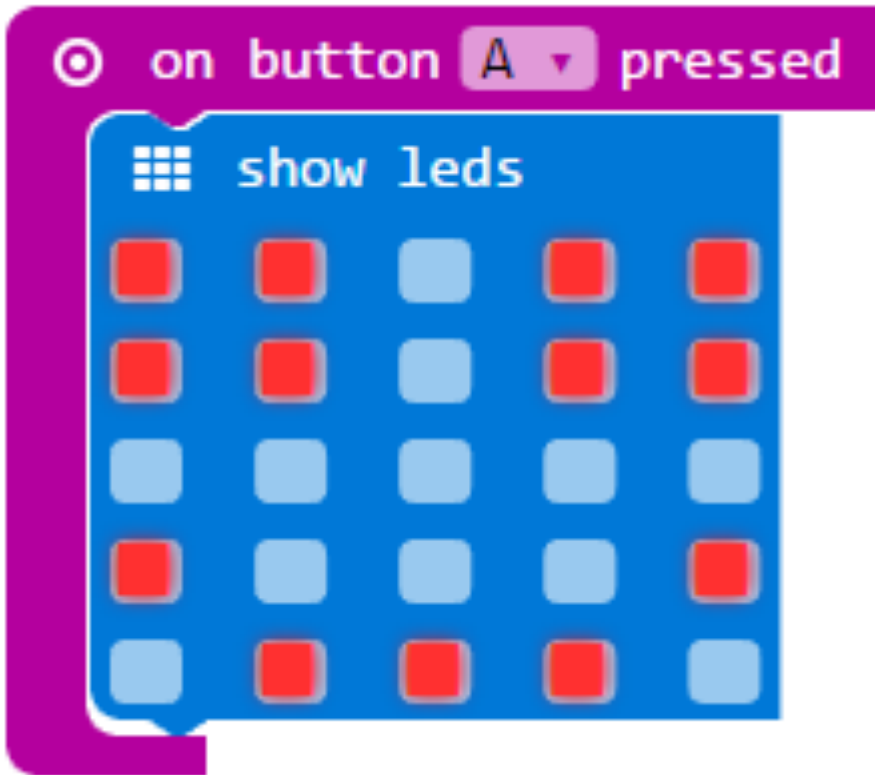


 Download

Button_test 

Step 4

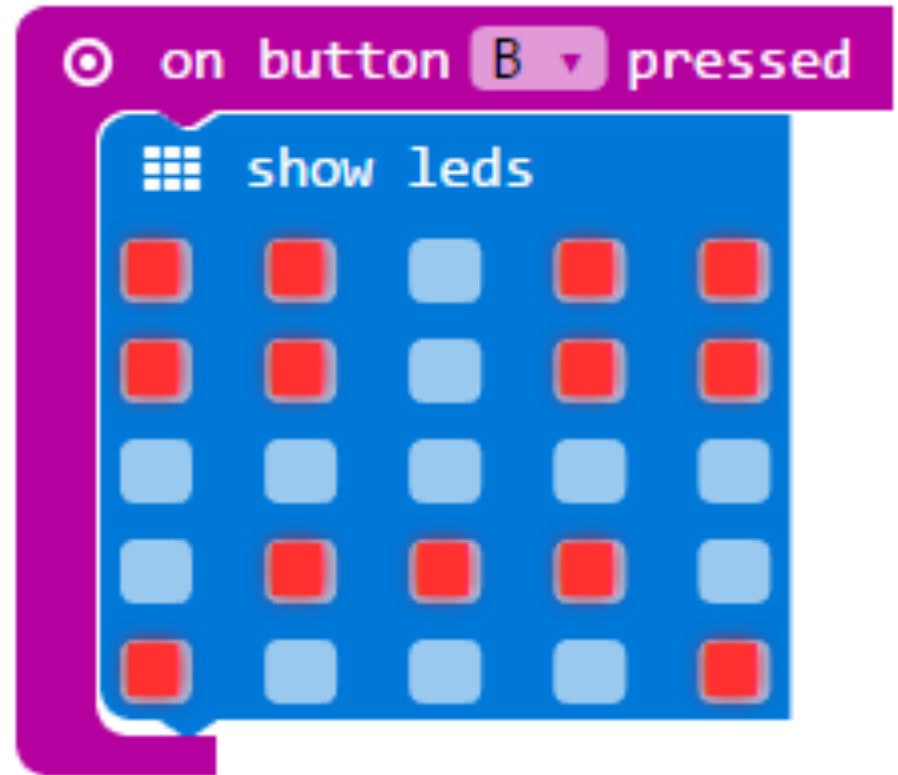
Add blocks so that when [button B is pressed](#), a frowney appears:



on button **A** pressed

show leds

■	■	□	■	■
■	■	□	■	■
□	□	□	□	□
■	□	□	□	■
□	■	■	■	□



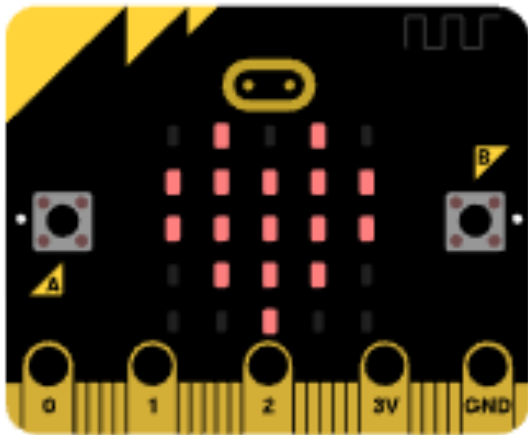
on button **B** pressed


show leds

■	■	□	■	■
■	■	□	■	■
□	□	□	□	□
□	■	■	■	□
■	□	□	□	■

Step 5

Click Download to transfer your code in your micro:bit!

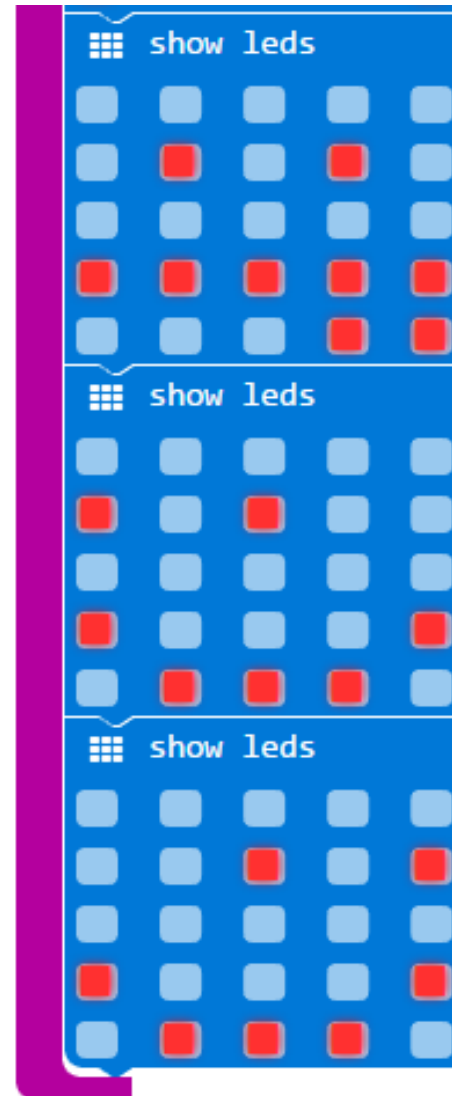
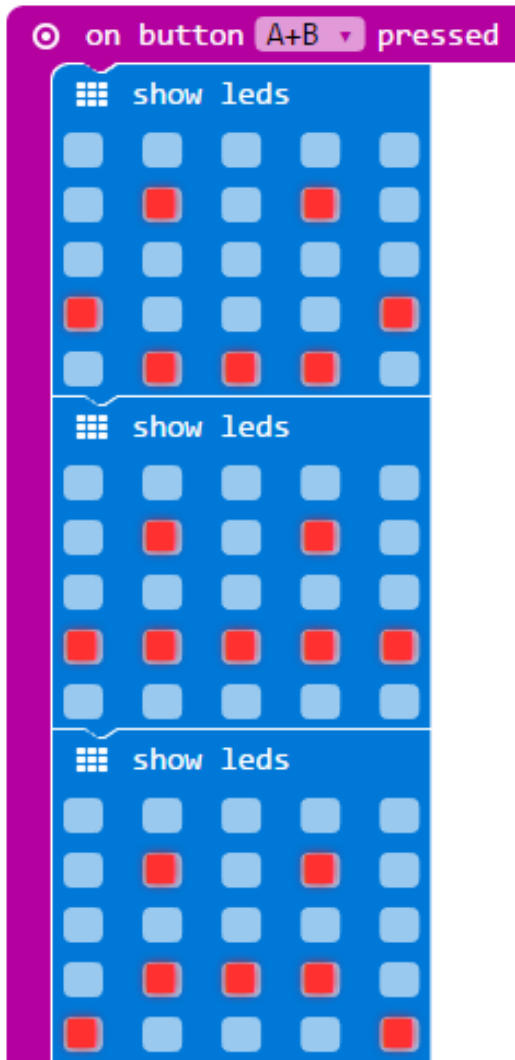


 Download

Button_test 

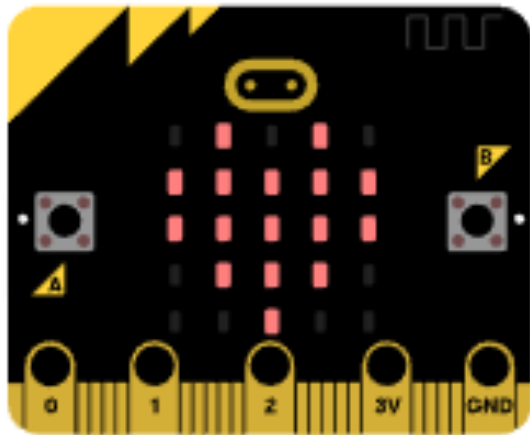
Step 6

You can also have a secret mode where A and B are pressed together.



Step 7

Click Download to transfer your code in your micro:bit!



 Download

Button_test 



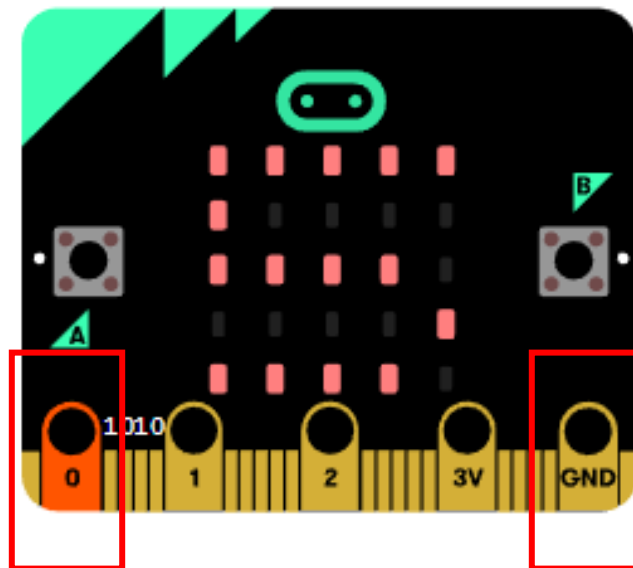
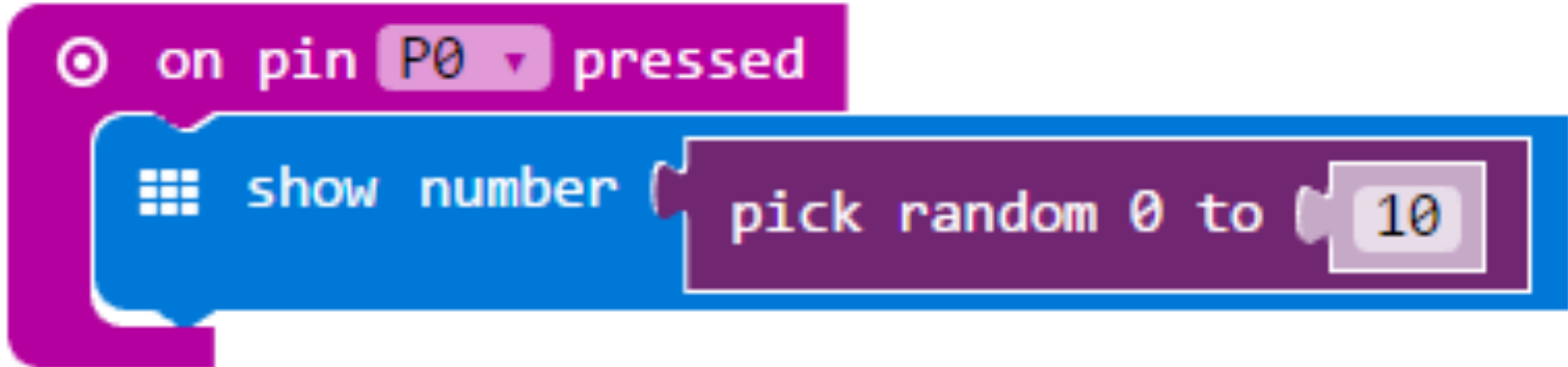
Use pins and your body to change the display!



Love Meter

Step 1

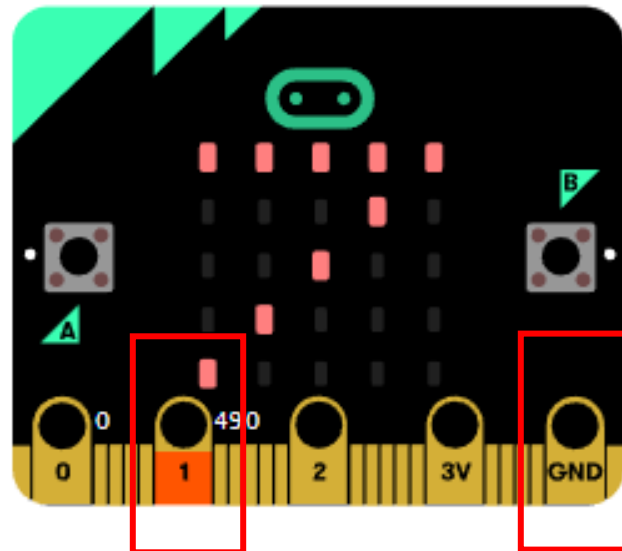
Use [on pin pressed](#) to show a random number when pin P0 is pressed (hold the GND pin with other hand):



Show a string when pin P1 is pressed:

```
on pin P0 pressed
  show number pick random 0 to 10

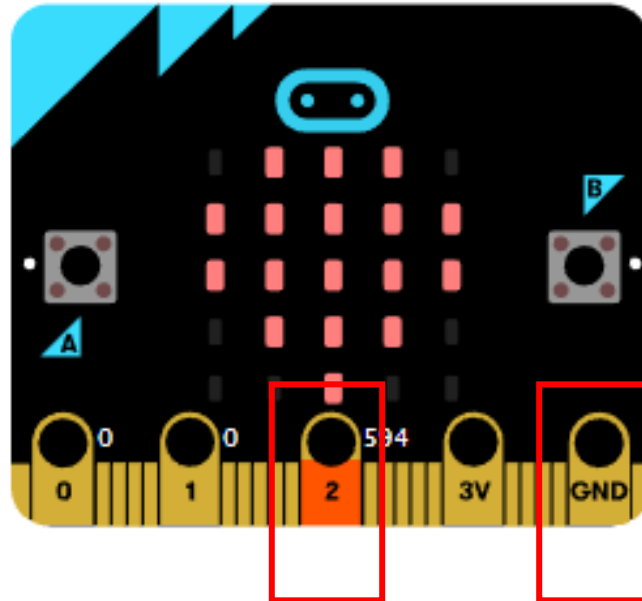
on pin P1 pressed
  show string " LOVE? "
```



Step 3

Show a heart when pin P2 is pressed:

```
on pin P0 pressed  
  show number  
    pick random 0 to 10  
on pin P1 pressed  
  show string  
    "LOVE?"  
on pin P2 pressed  
  show leds  
    [5x5 grid of LEDs with heart shape]
```



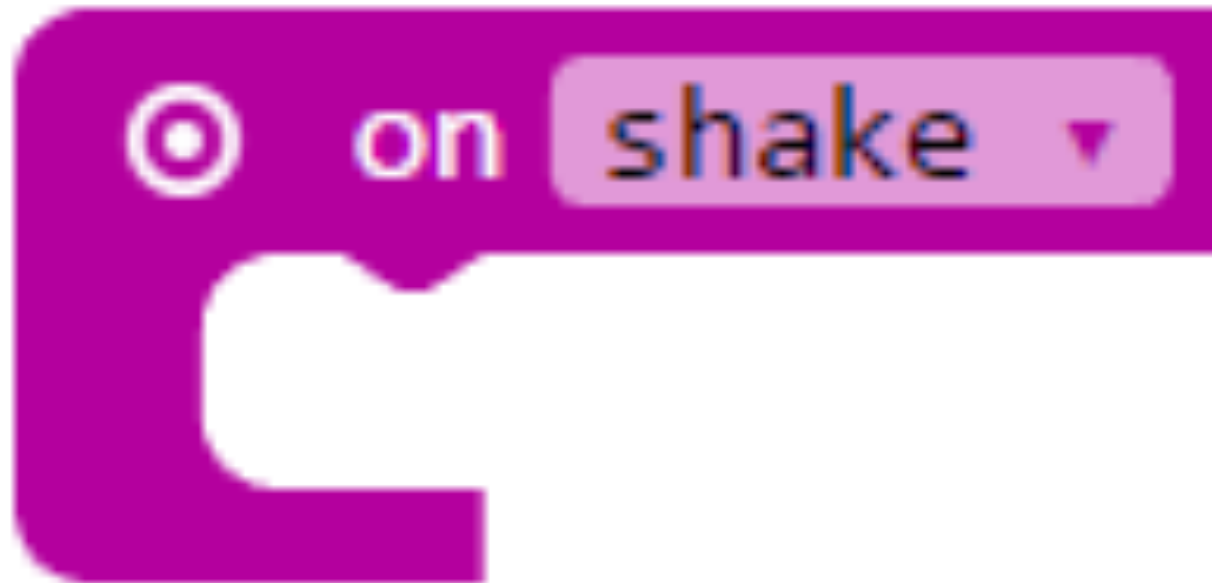


Build a rock paper scissors game!

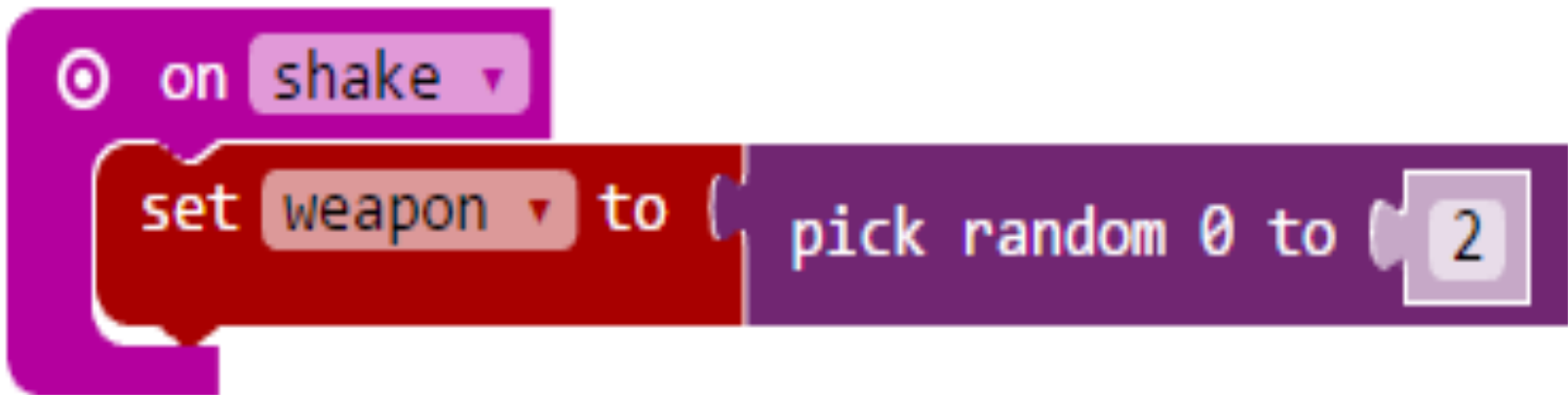


Rock Paper Scissors

Creating an on shake block

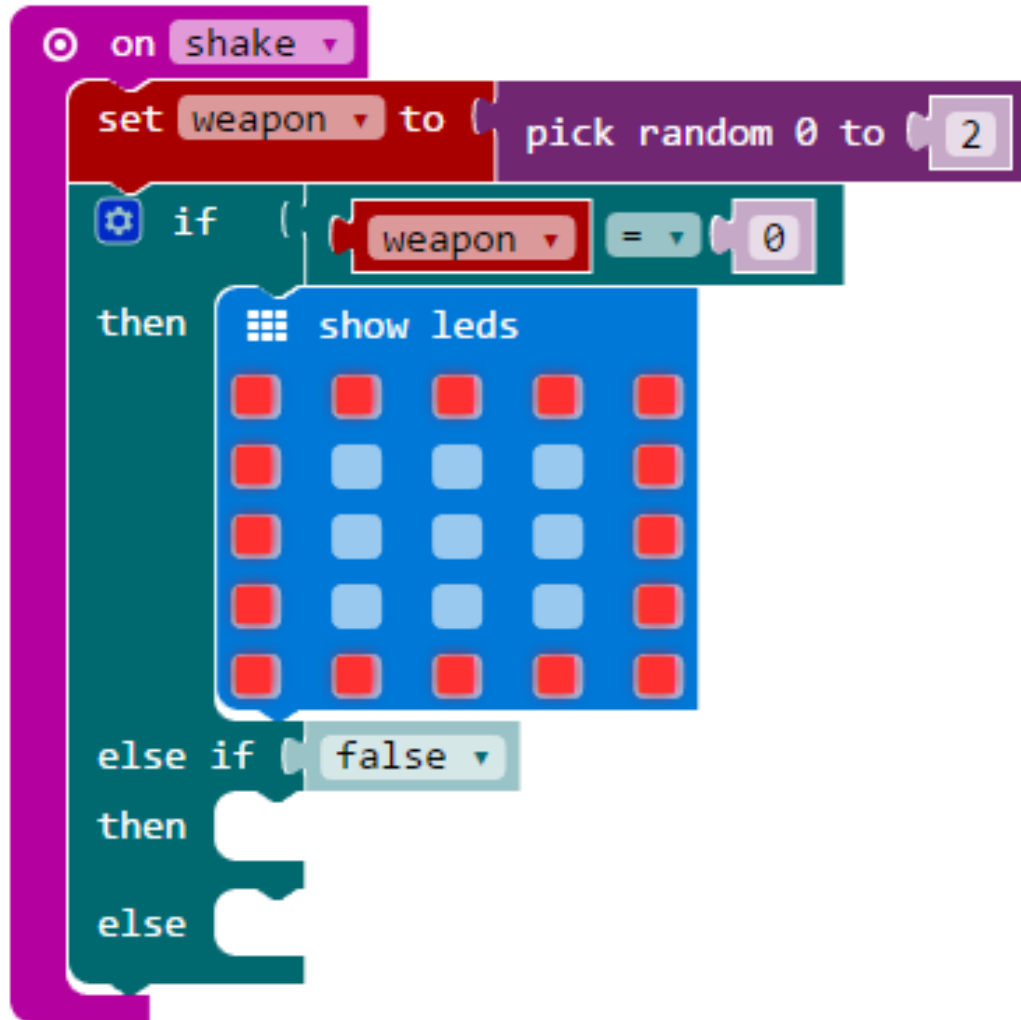


Add a set block with a variable. Then add a pick random block, and store the random number in the variable, like this:



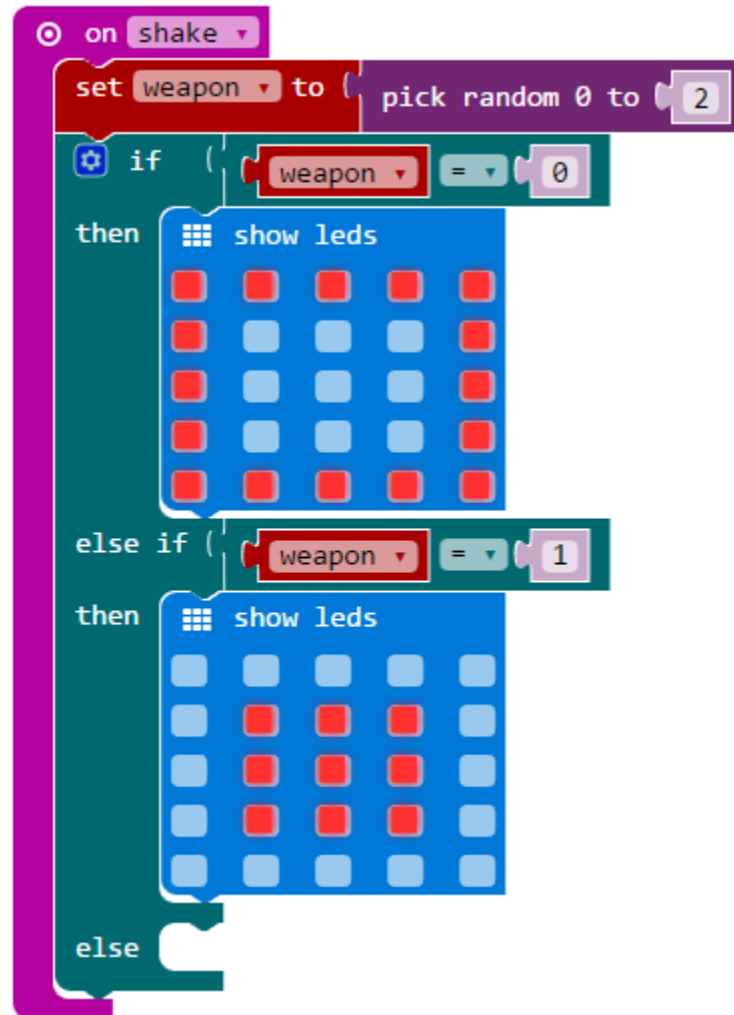
Step 3 - Picking paper

Put an if block after the let block that checks whether weapon is 0.
Make sure the if block has an else if part and an else part.



Step 4 - A random rock

Make the **else if** part check if the variable **weapon** is **1**.
Then add a **show leds** block with a **picture of rock**.



Step 5 - Suddenly scissors

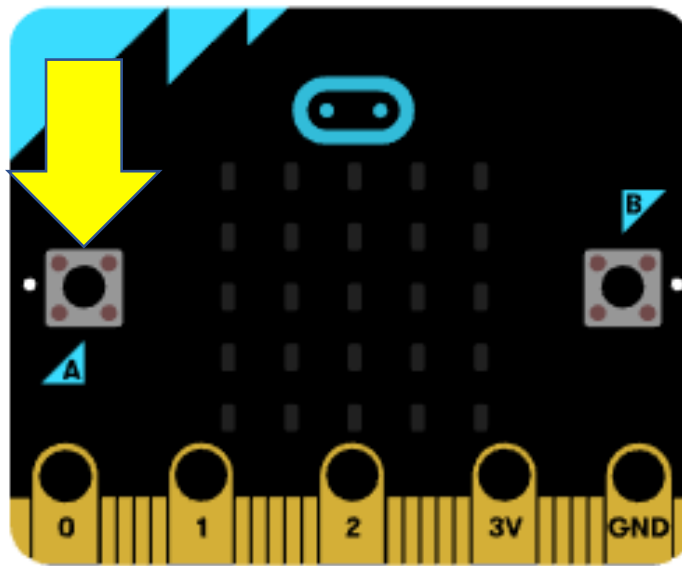
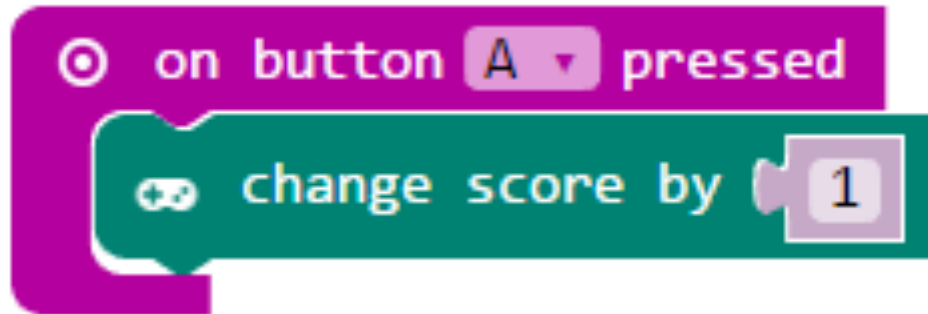
Add a **show leds** block with a picture of scissors to **else** part:

```
on shake
  set weapon to pick random 0 to 2
  if (weapon = 0)
    then
      show leds
  else if (weapon = 1)
    then
      show leds
  else
    show leds
```

Your game is ready! Have fun!

Step 6 - Are you the greatest?

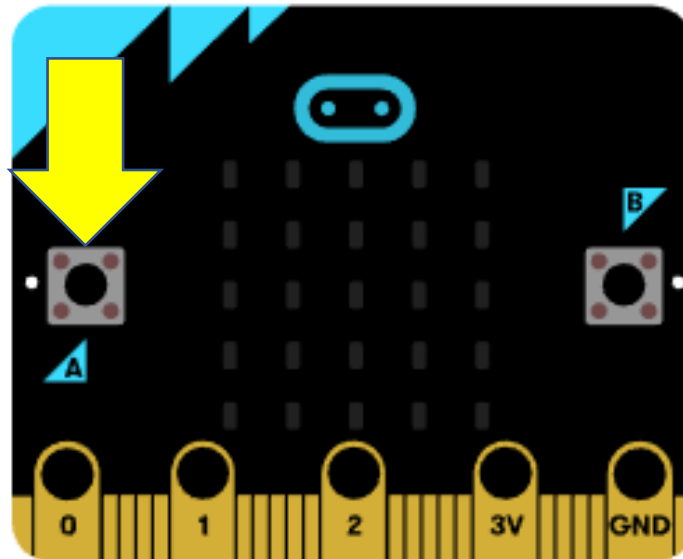
Open the Game drawer, and then add the block change score by 1



Step 7 - Prove you're the greatest !

After you micro:bit can add 1 to the score, show how many win you have

```
on button A pressed
  change score by 1
  show string " WINS: "
  show number score
```



Open the Game drawer, and then add the block change score by -1

```
on button B pressed  
  show string "LOSSES:"  
  show number  
  change score by -1  
score
```

