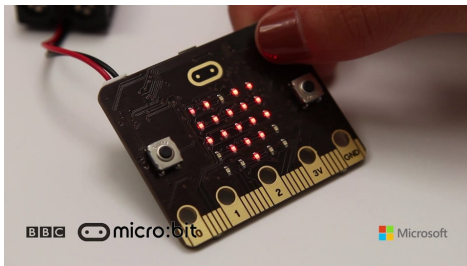


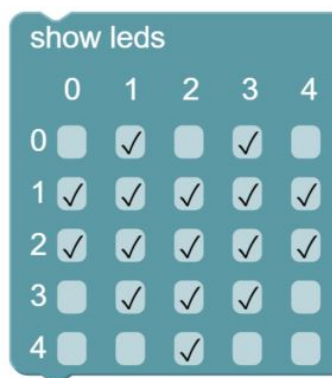
# flashing heart blocks activity



In this activity, you will learn how to blink an image on the LED screen.

To create a new script, go to the **Create Code** (<https://www.microbit.co.uk/create-code>) page and tap *New Project* under *Block Editor*.

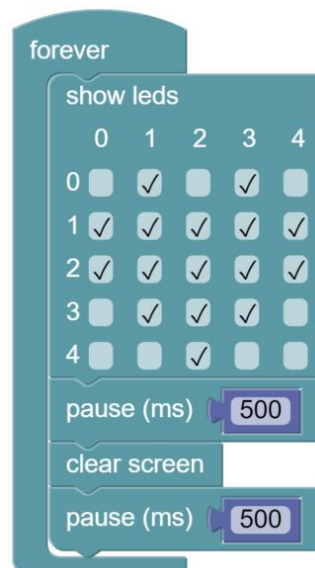
Let's start by adding code that plots a heart image on the screen using `show LEDs`. Once you are done coding, don't forget to run your code in the simulator or the BBC micro:bit.



We want to leave the image on the screen for 0.5 seconds (500 milliseconds), then clear the screen. We can use `pause` to wait and `clear screen` to turn off the LEDs.



Finally, we can surround this code with a **forever** loop to repeat it and add a pause after **clear screen** to keep the screen off for a little while. Modify your code so that your code looks like this.



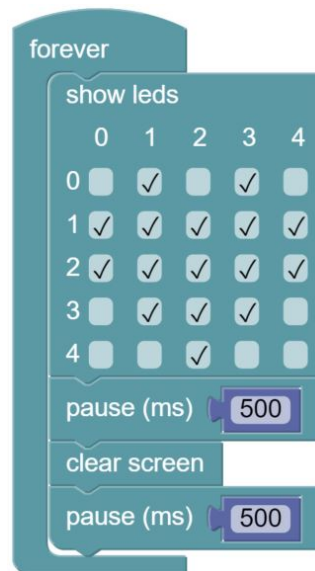
Excellent, you're ready to continue with the **challenges** (<https://www.microbit.co.uk/blocks/lessons/flashing-heart/challenges>) !

# flashing heart blocks challenges

## Before we get started

Complete the **flashing heart**

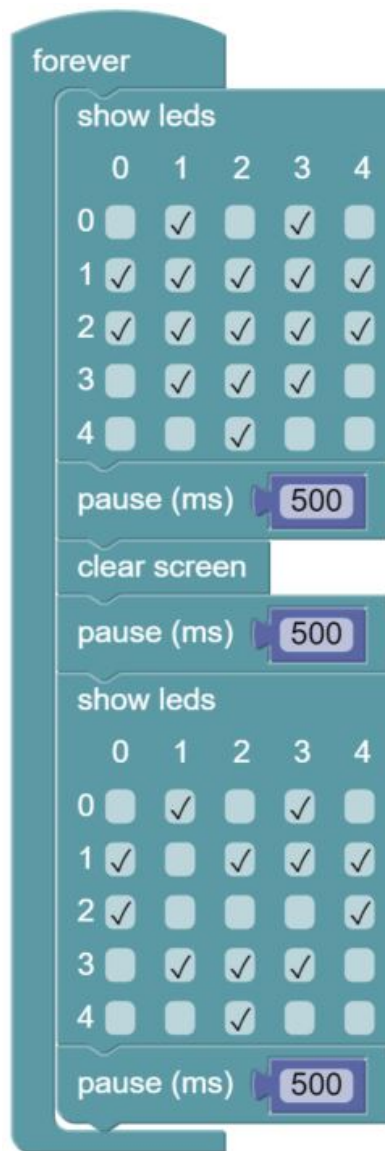
(<https://www.microbit.co.uk/blocks/lessons/flashing-heart/activity>) activity and your code will look like this:



## Challenge 1

Let's plot a different image. Let's display a broken heart!

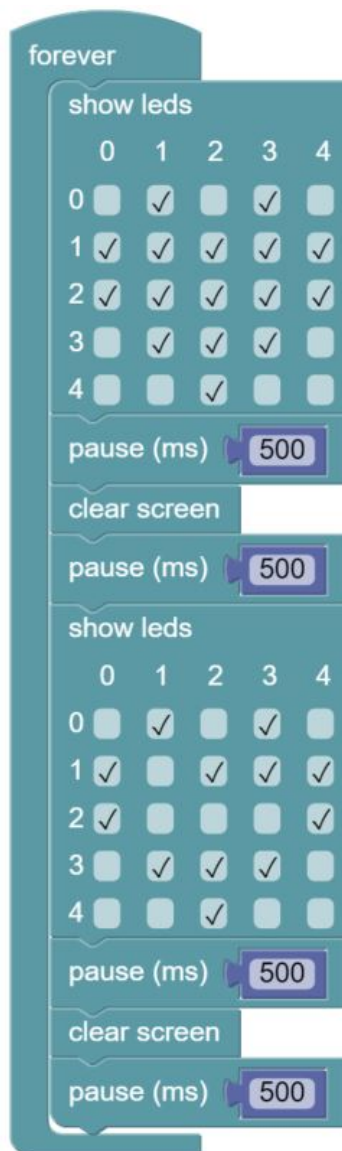
To do this, you need to add a block between the last line and the end loop. Add a **show LEDs** block and then add a **pause** of 500 milliseconds.



- click *run main* to see if the code works as expected.

## Challenge 2

Now let's alternate flashing the heart and the broken heart. To do this, we need to add a `clear screen` block and then add a `pause` block of 500 milliseconds under the new code we added in Challenge 1.



- click *run main* to see if the code works as expected.

## Challenge 3

You now have a heart and broken heart flashing! Now plot a new image to alternate in with the heart and broken heart.

# flashing heart blocks quiz

Name

## Directions

Use this activity document to guide your work in the **flashing heart activity** (<https://www.microbit.co.uk/blocks/lessons/flashing-heart/activity>).

Answer the questions while completing the activity. Pay attention to the dialogues!

1. Describe what  does?

2. Write the code that leaves an image on the screen for 1 second (1000 milliseconds)

3. Write the code that leaves an image on the screen for 1.5 seconds (1500 milliseconds)