

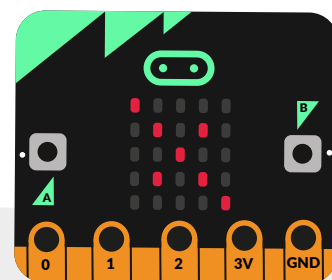
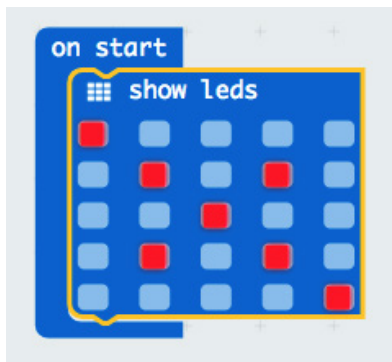


Make a crowd display!

with Micro:Bits and MakeCode Blocks

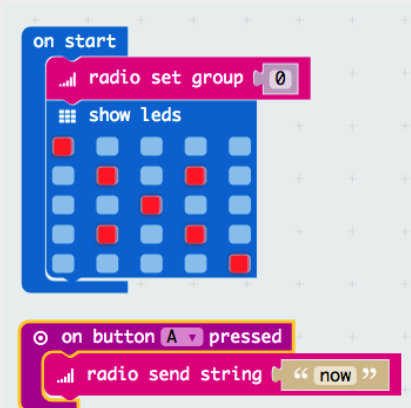
Design your image

- 1 Connect the micro:bit to your computer using the USB cable.
- 2 Open the MakeCode webpage (makecode.microbit.org) or run the offline version (pxt serve).
- 3 Drag these blocks from the **Basic** group:
- 4 Design your own image for LEDs.
- 5 Click **Download**, and then follow the instructions to copy the **.hex** file to your micro:bit. The LEDs on the micro:bit should light up and show your pattern.

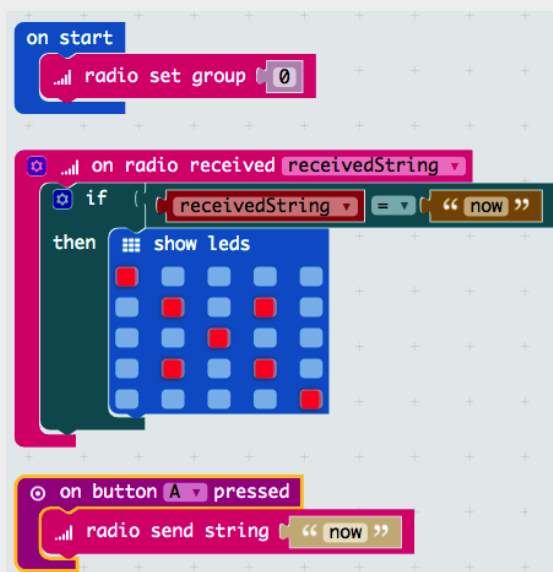


Set up the radio

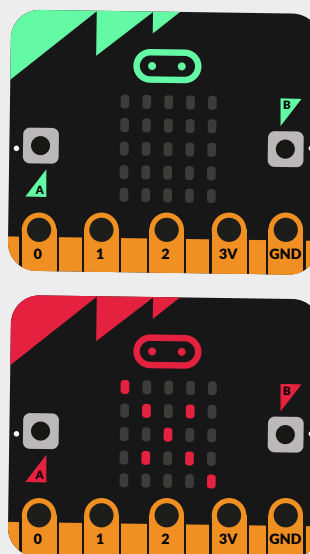
- 1 Add the **radio set group** block.
- 2 Now add an **input** block that will be triggered when Button A is pressed, and fill it with a **radio send string** block. Enter some text to send as the message (the example uses "now").



- 3 Move your show leds block and add an **if...then** block so that the LEDs are only triggered when your message (with the same text) is picked up via the **on radio received** block.



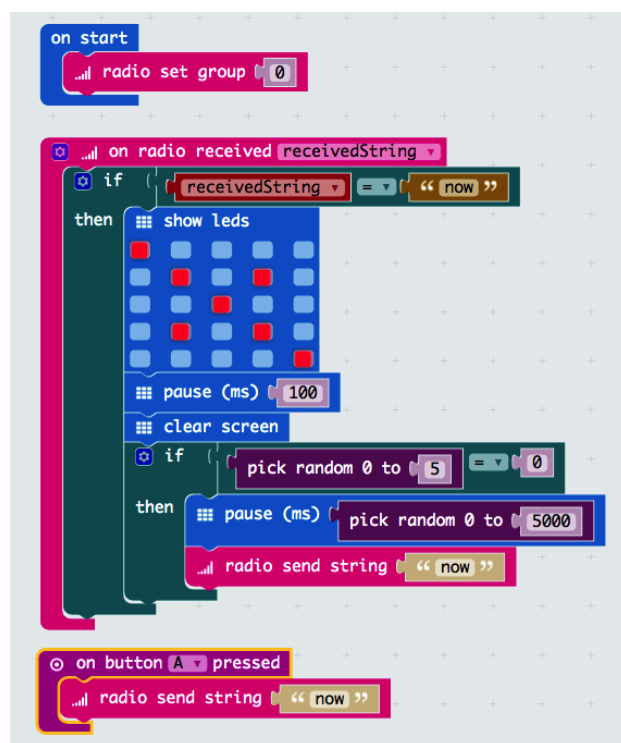
- 4 Find someone else who is at the same point and test your code. Does pressing your A button make their image appear on their micro:bit?



- 5 Can you add a **pause** and a **clear screen** block so that the image disappears after a few seconds?

Triggering an avalanche of messages

- 1 To trigger an avalanche, have the micro:bits re-broadcast the message sometimes, but not always, after they receive it: use the **pick random** function to choose a number, and only broadcast the message again if the number matches a specific value.
- 2 Use the **random** block again to include a slight pause of up to 5 seconds before re-broadcasting.
- 3 Test your code as group and adjust the values in the **random** blocks so that avalanches occur as often as you like.
- 4 Work as a group to extend the project:
 - Modify the code so that pressing Button B has a different effect than pressing Button A.
 - Can you coordinate your micro:bits so that pressing a button on one of them causes a text message to be displayed on the others one letter at a time?



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