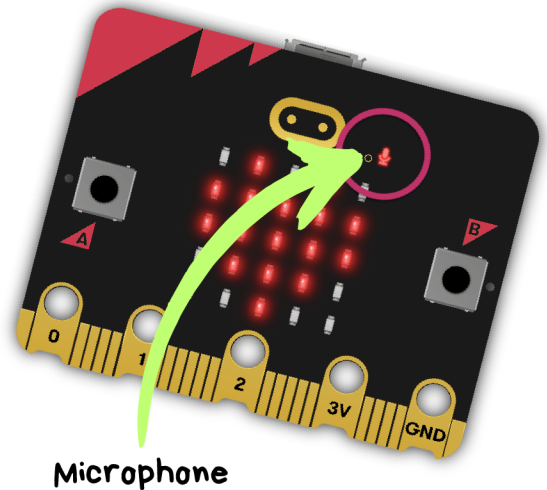
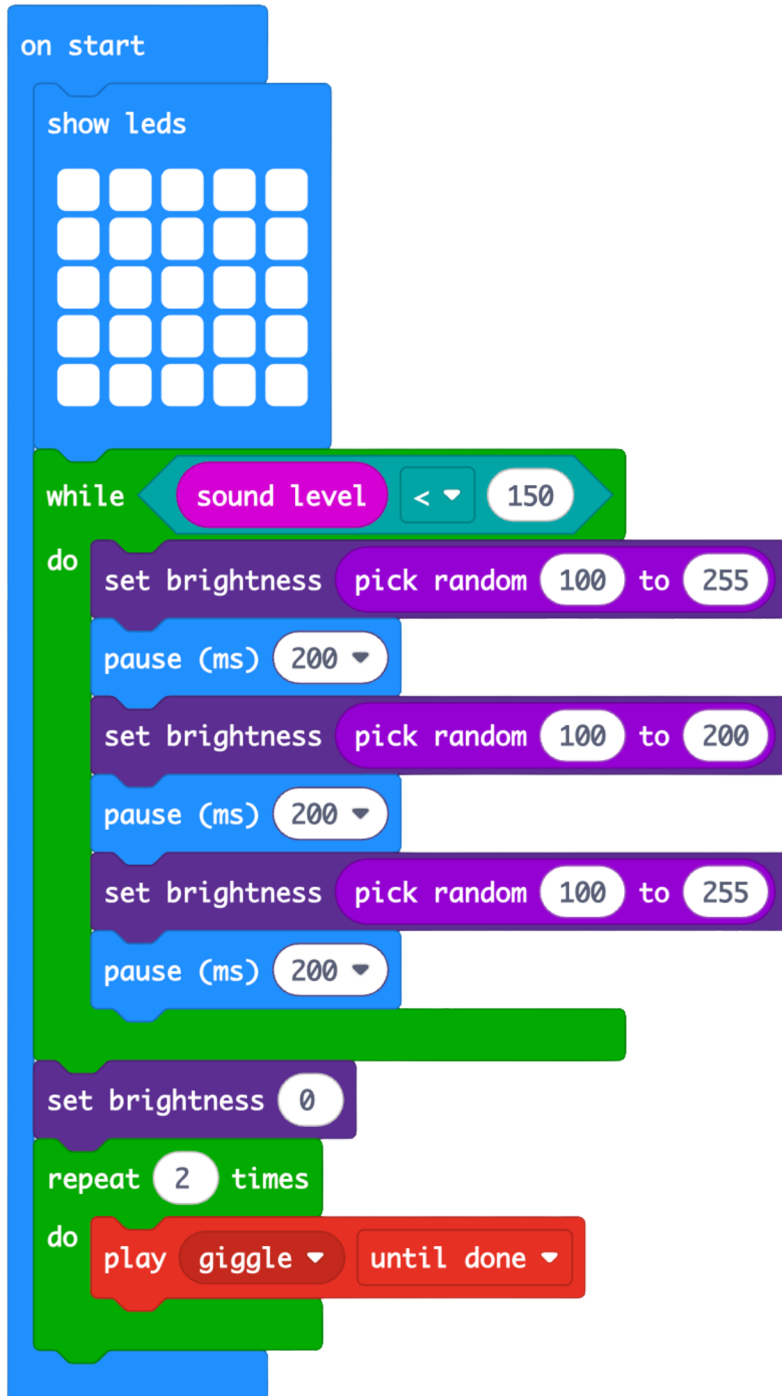


candle

Design and make a candle using a cardboard tube.
Then, code your micro:bit so that it will flicker and
'blow out' when the micro:bit's microphone detects a loud noise!
This one also has sound effects.



Prepare a cardboard tube and some
red, or orange card for the flame.

Candle 2

Here is an alternative code for a candle with an animated flame.

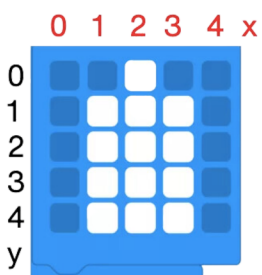
```

on start
  set lit to true

on loud sound
  set lit to false

on button A pressed
  set lit to true
  
```

The micro:bit's LEDs are arranged in a grid with columns and rows numbered from 0 to 4.



```

forever
  if lit then
    show leds
    set flicker to pick random 1 to 3
    if flicker ≠ 2 then
      unplot x 2 y 0
      plot x flicker y 0
      pause (ms) 200
    else
      clear screen
  
```

How it works

The micro:bit picks a random number between 1 and 3. This number decides which LEDs at the top of the screen turn on and off, making the flame look like it's flickering. The flame's middle LED is at position (2, 0). A forever loop keeps the flicker going.

A variable called lit remembers if the candle is on or off. When the microphone hears a sound (like you blowing), the code switches lit to not lit and the flame goes out!