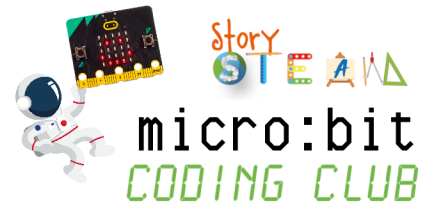


Design a device or game to help the planet!



Let's use our coding skills and the micro:bit to help the environment!

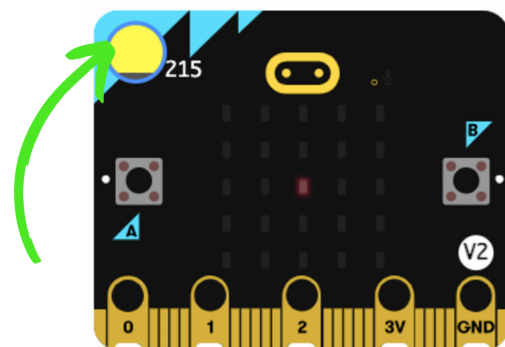
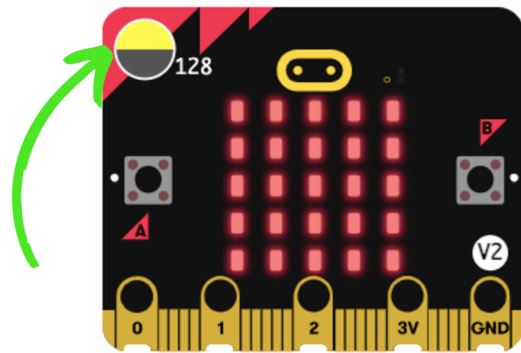
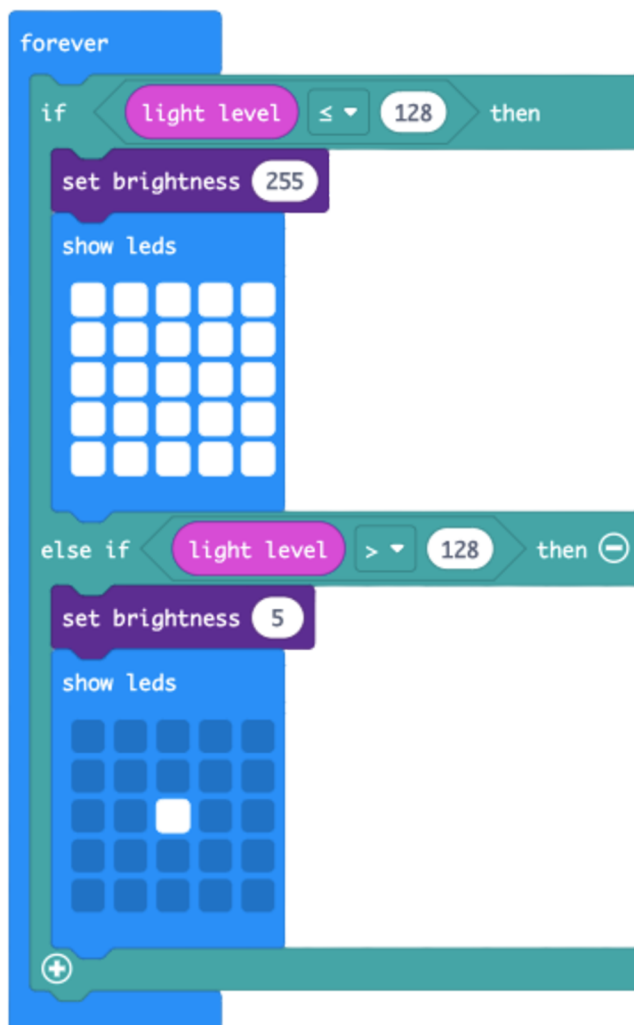
Become a tech inventor and design a device or game that solves a real-world problem.

Use sensors to detect things like light, sound or motion, then code a smart solution. Your invention could turn on lights only when needed, track wildlife, or encourage recycling or help to keep people active and fit.

Here are some starting points...

Energy Saving Light

Use the 'light level' sensor to measure how light it is.



Test out your program using the simulator.

This code uses the micro:bit's own LEDs at the automatic light. Use your micro:bit as a nightlight that turns off automatically when it gets light.



storysteam.com



Remind everyone to turn the lights off!

Leaving lights on wastes energy. Code your micro:bit to tell people to turn the lights off when they are not needed.

```

on start
  repeat 2 times
    do
      show string "Save energy!"
  
```

```

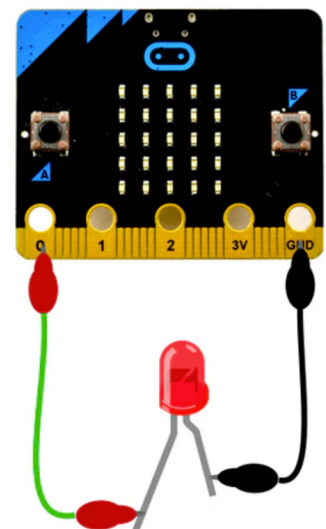
forever
  if light level ≥ 128 then
    play melody [C4, D4, E4, F4, G4, A4, B4, C5] at tempo 120 (bpm) until done
  else
    stop all sounds
  
```

Design Your Own Energy Saving Light

Connect an LED to pin 1 and GND using crocodile clip leads.

```

forever
  if light level ≥ 128 then
    digital write pin P1 to 0
  else
    digital write pin P1 to 1
  
```



Nature Walk

Keep track of the birds and bugs on your nature walks.

```

on start
  set zone to 1
  set bug count to 0
  set steps to 0
  
```

```

on button A pressed
  change bug count by 1
  show icon [bug icon]
  pause (ms) 1000
  
```

```

on button B pressed
  change bird count by 1
  show icon [bird icon]
  pause (ms) 1000
  
```

```

on logo pressed
  show number zone
  show string "Keep going!"
  
```

```

on shake
  change steps by 1
  pause (ms) 1000
  
```

Nature Walk cont.

Encourage people to keep walking by using zones and reward badges.

