

# Sunlight sensor

Turn the LED display into a sensor to make your micro:bit react to light.

## How it works

- As well as working as an output, the LEDs on your micro:bit can also work as an input device **light sensor**, measuring the amount of light falling on them.
- This means that micro:bit programs can make different things happen depending on how light or dark it is.
- The program uses an 'if... else' statement to show the sun image only **if** the light level is greater than (>) a certain level. This is known as selection – selecting when different things happen.
- Flash this program onto your micro:bit and shine a light source, like a torch, daylight or bright ceiling light on to the micro:bit, and you should see the sun appear.
- Cover the micro:bit with your hand and the sun icon should vanish.
- If it doesn't work, try making the 100 number smaller to suit the lighting where you are.

## What you need

- micro:bit (or MakeCode simulator)
- MakeCode or Python editor
- battery pack (optional)
- a light source and something to cover the micro:bit with – your hand will do!

Here is the Python code:

```
from microbit import *
2
3while True:
4    if display.read_light_level() > 100:
5        display.show(Image(
6            "90909:"
7            "09990:"
8            "99999:"
9            "09990:")
```

```
10     "90909"))
11     else:
12         display.clear()
```

OR

