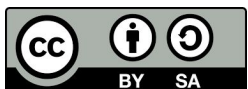
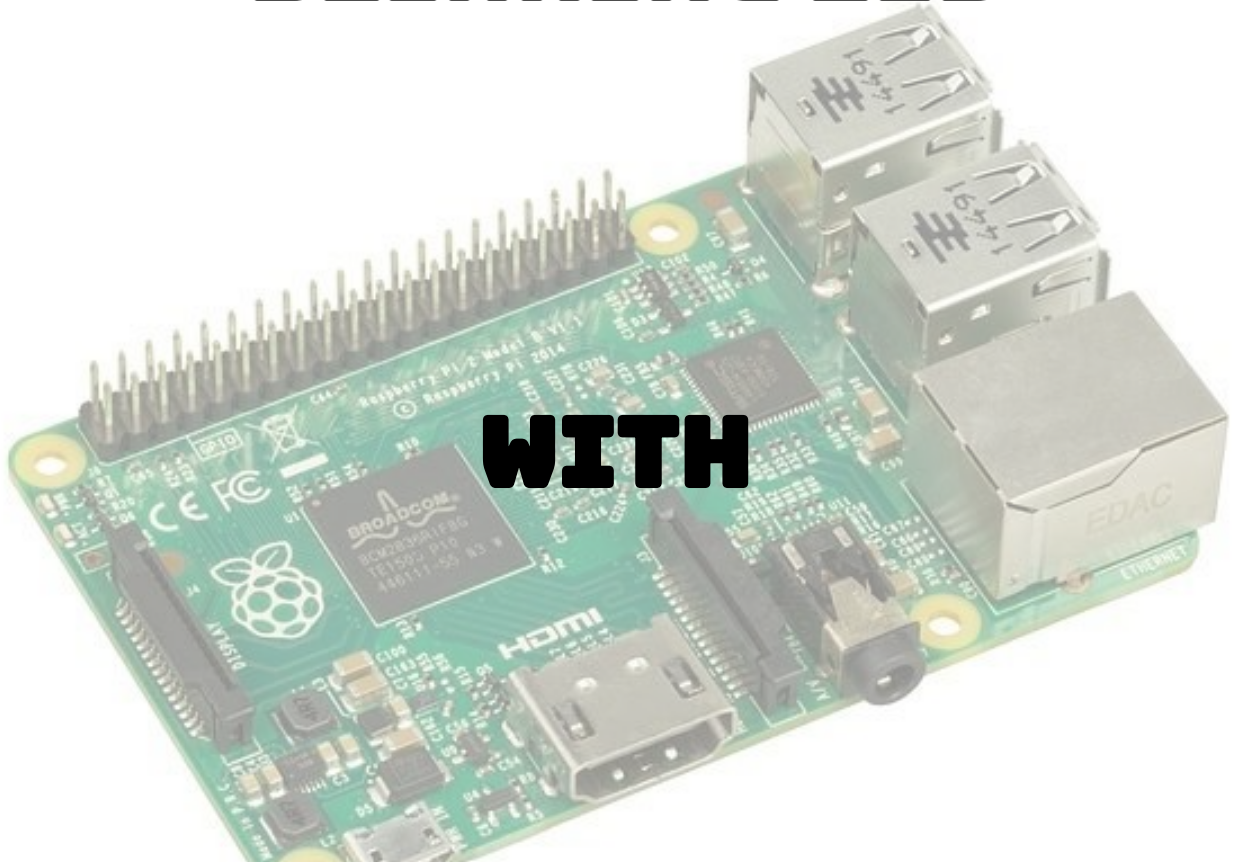




BLINKING LED



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TURNING AN LED ON



PAGE 2

OBJECTIVE

We are going to use a Raspberry Pi and Python to make an LED blink on and off.

GETTING STARTED

To open Python go to Menu -> Programming -> Python 3



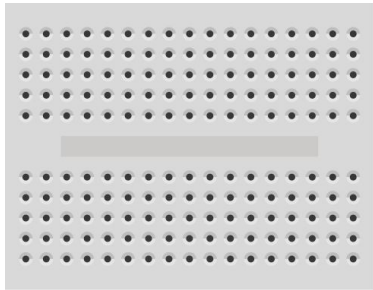
TURNING AN LED ON



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BUILDING THE CIRCUIT

You will need the following electronic components to create the circuit.



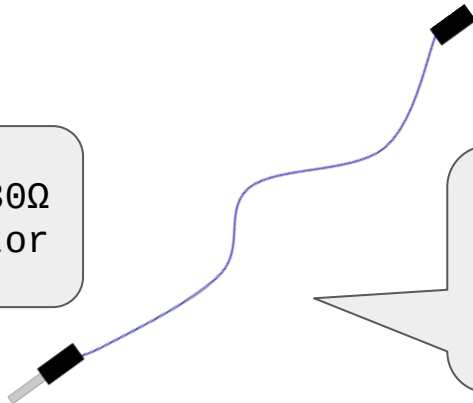
1 x Breadboard



1 x LED



1 x 330 Ω resistor



2 x Male to Female Jumper wires



TURNING AN LED ON

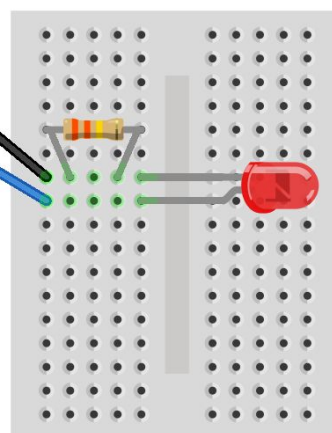
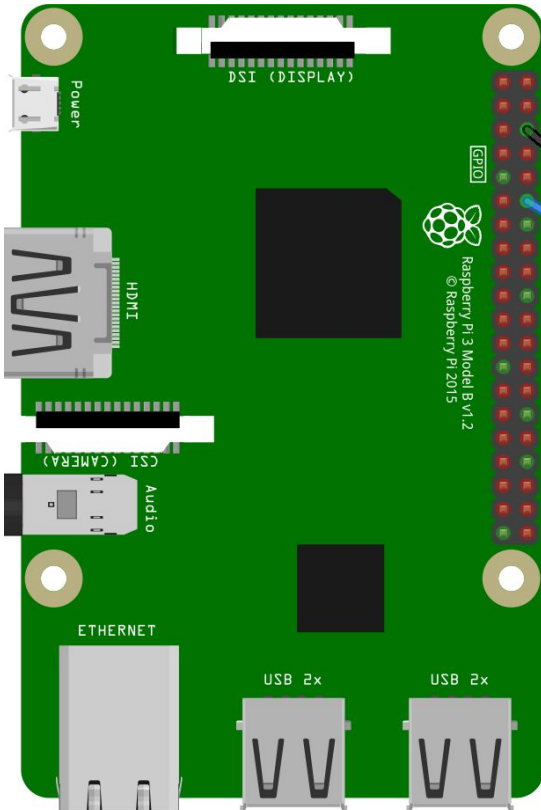


PAGE 3

BUILDING THE CIRCUIT



LEDs have a positive and negative leg. The longer leg is the positive leg. This is shown as the bent leg here.



Negative = GND
Positive = pin 18



TURNING AN LED ON



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CODE

```
import time # importing the time python library

from gpiozero import LED # this imports the LED module from the
gpiozero library

led = LED (17) # This is declaring pin 17 as the LED

while True: # This creates a while loop that will run until we tell
it to stop
    led.on () # This is turning the LED on
    time.sleep (1) # This tells the program to pause for 1 second
    led.off () # This turns the LED off
    time.sleep (1) # This tells the program to pause for 1 second
```

You can ignore anything after the “#” as this represents a comment and is telling you what the code does.



TURNING AN LED ON



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RUNNING THE CODE

1. Save your code by clicking on file -> save as.
2. Give your program a name e.g. Blinking LED.
3. To run your code press F5 on your keyboard.
4. You should now see your LED blink on and off, if not go back and check your circuit and code are correct. This is called Debugging.

CHALLENGE

Try adding a second LED