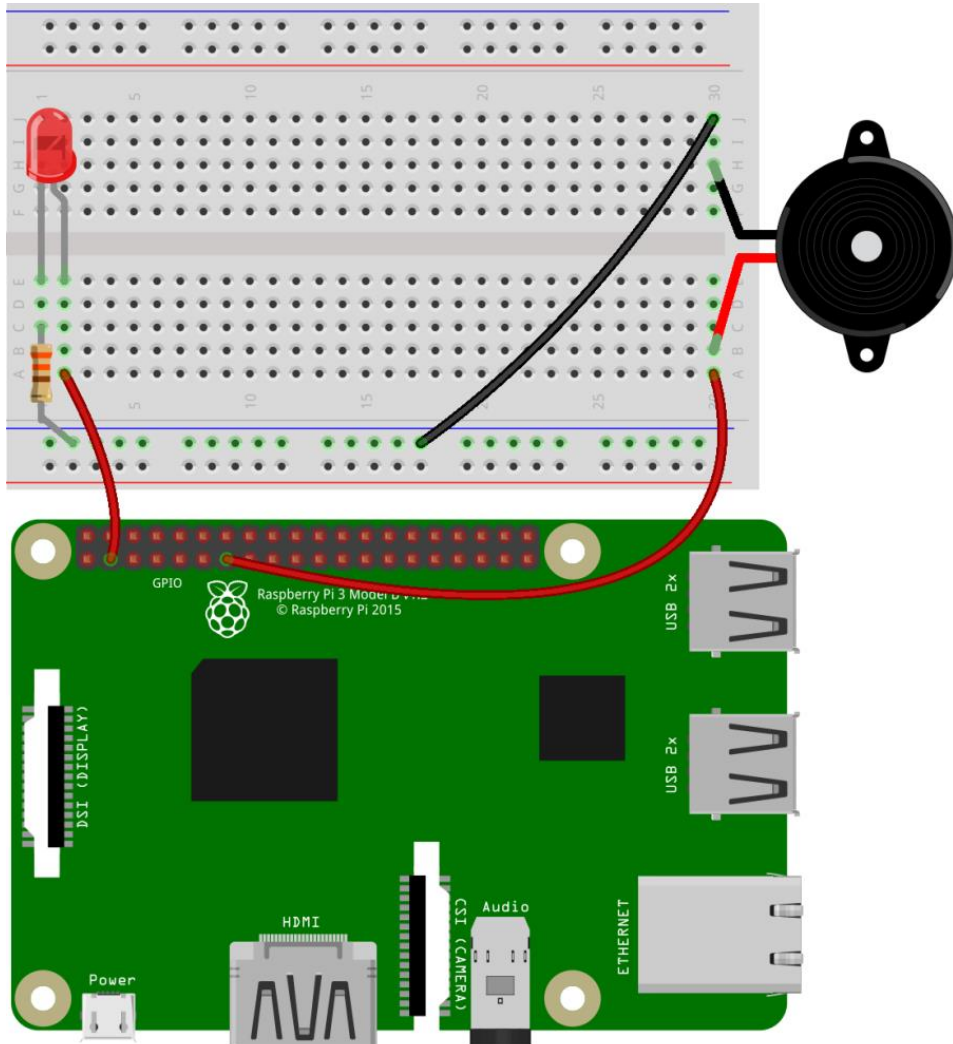


# WHAT ARE BUZZERS & LEDS?: ACTIVITY




## BUILD THE CIRCUIT



## GPIO REFERENCE

Raspberry Pi GPIO BCM numbering

5V			UART		18		23		24		25		8		7		I2C0		12		16		20		21			
			14 TXD 15 RXD		PWM0								8 CE0 7 CE1		1 ID_SC				PWM0				20 MOSI 21 SCLK					
2																												40
1																												39
3V3			SDA 2 SCL 3		GCLK0 4		17		27		22		MOSI 10 MISO 9		SCLK 11		ID_SD 0		GCLK1 5 GCLK2 6		PWM1 13		MISO 19		26			
I2C1													SPI0															

  
pinout.xyz



## YOU WILL NEED

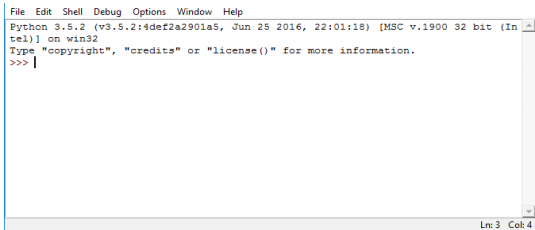
- RASPBERRY PI
- BREADBOARD
- 1 RED LED
- 1 BUZZER
- 2 MALE TO FEMALE WIRES
- 1 MALE TO MALE WIRES
- 1 330Ω RESISTOR
- SCREEN, KEYBOARD, MOUSE

# WHAT ARE BUZZERS & LEDS?: ACTIVITY



## MAIN ACTIVITY

1. On the top right hand corner of your screen, click the Raspberry Logo then select programming and then Python 3. You should now see the Python Shell window.



2. Now, click file then new file. In the new window select File then Save As and call it buzzersandleads.py .

**Let's  
Code**

3. Lets get coding. Using your knowledge skills from the main exercise, have a go at using the components and interacting with them through code.

4. Press CTRL+S on your keyboard to save the file. Then press F5 on your keyboard to run the code. You should see the red led and buzzer come on for 5 seconds then them turn off for 5 seconds and repeat that sequence. To stop the code press CTRL+C on your keyboard to stop it.

**Not Work? Look at our troubleshooting guide on the website.**

```
from edupython import kit1
import time
```

```
while True:
    kit1.red.led.on()
    kit1.buzzer.on()
    time.sleep(5)
    kit1.red.led.off()
    kit1.buzzer.off()
    time.sleep(1)
```