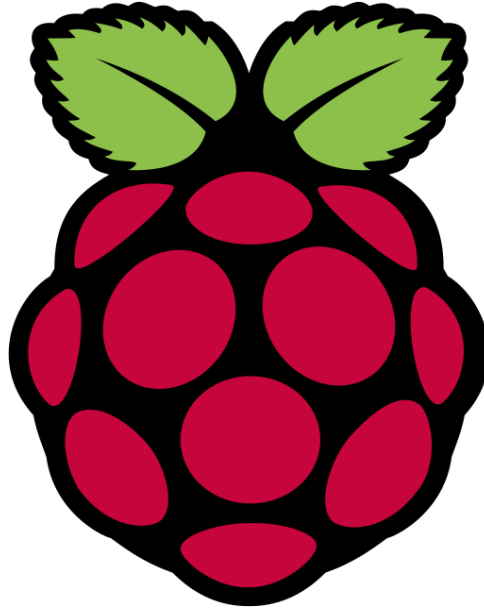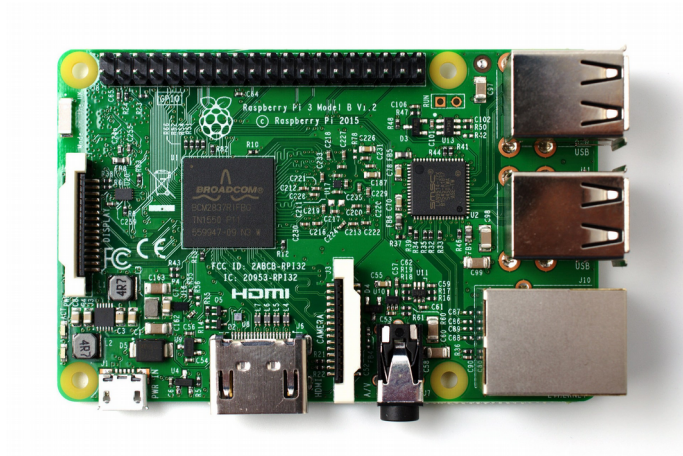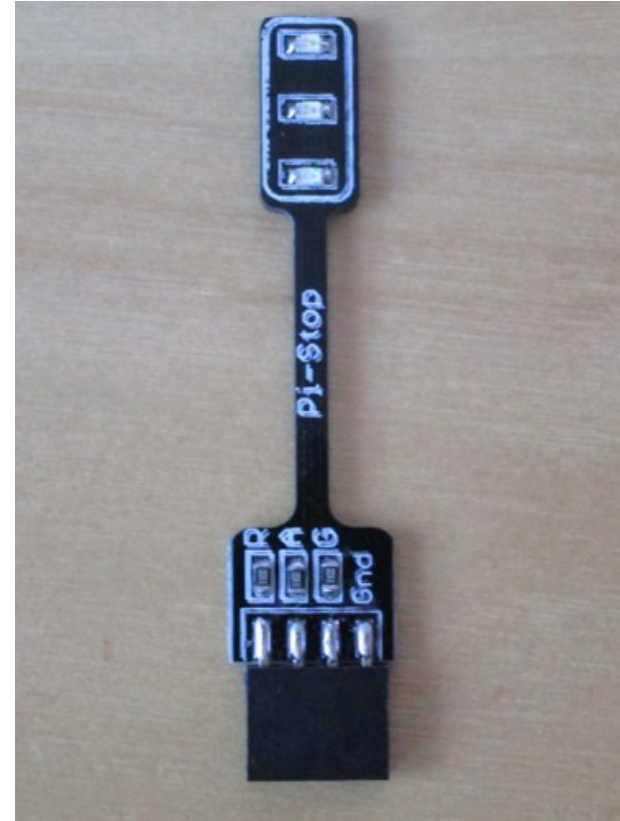# Traffic Lights controller
with gpiozero and guizero
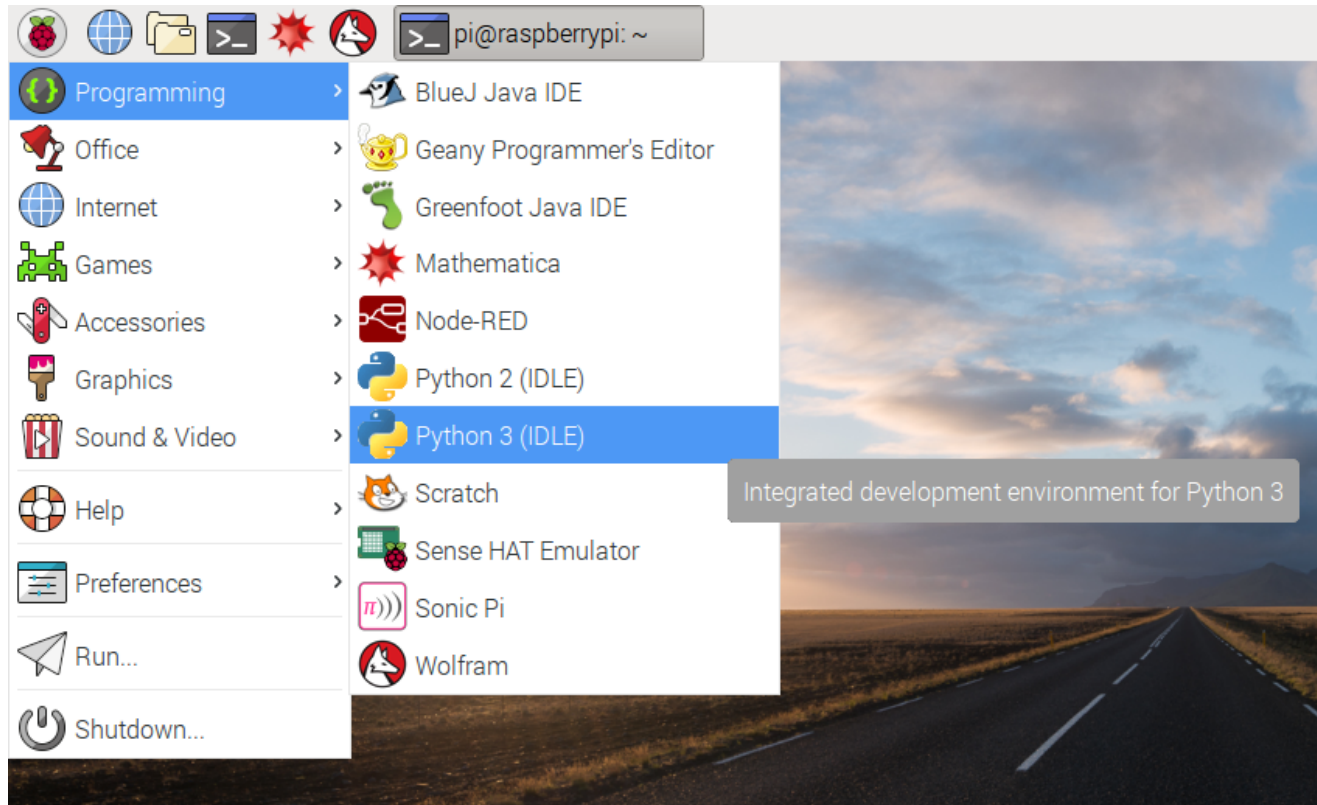
pi-stop
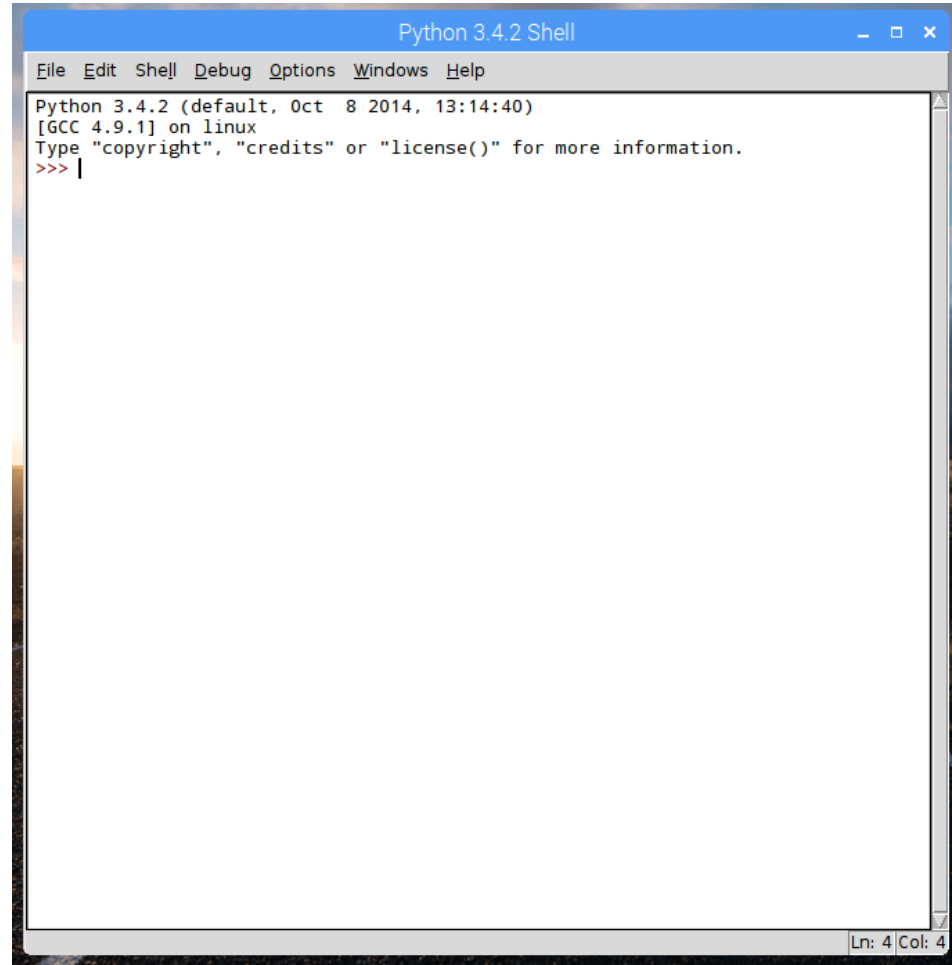
- GND
- GPIO17 (green)
- GPIO27 (amber)
- GPIO22 (red)

Open Python 3

Type into the Python shell

gpiozero LED

```
>>> from gpiozero import LED
>>> red = LED(22)
>>> red.on()
>>> red.off()
>>> red.blink()
```
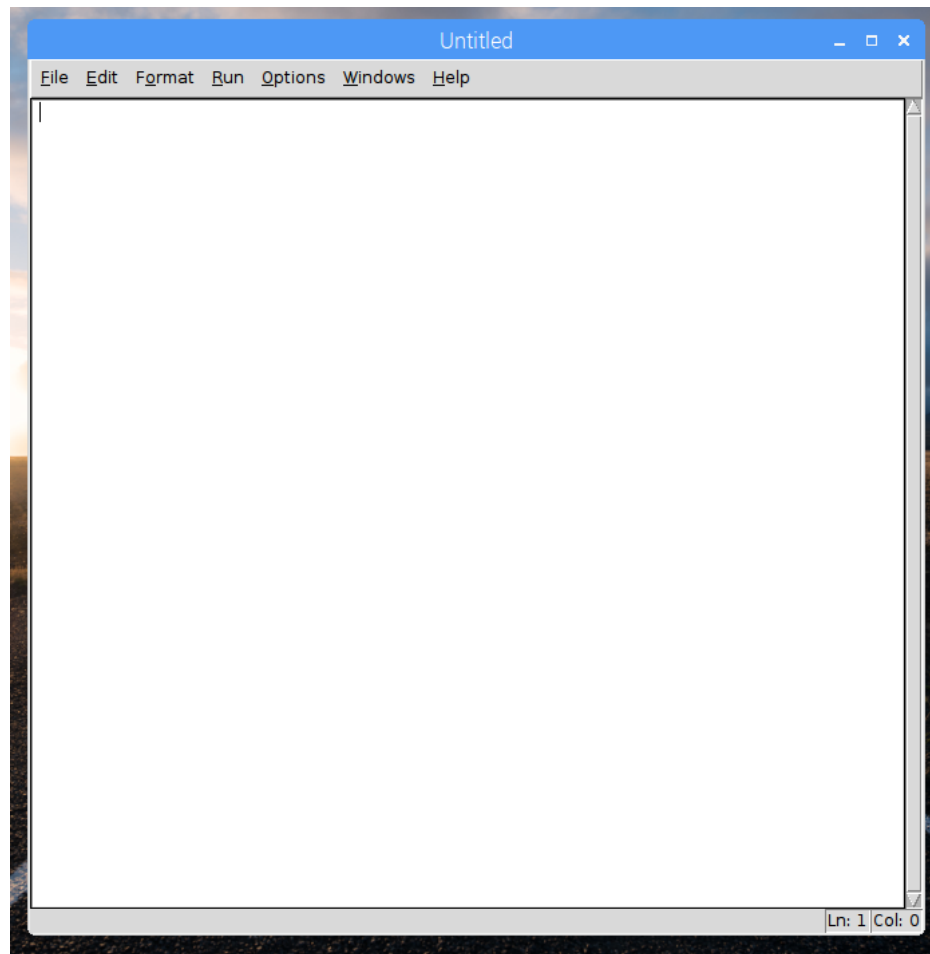
gpiozero LED blink

```
>>> red.blink(2, 2)
```

gpiozero LED blink

```
>>> red.blink(0.1, 0.1)
```

Open a new window

gpiozero Traffic Lights

```
from gpiozero import TrafficLights
```

```
lights = TrafficLights(22, 27, 17)
```

```
lights.blink()
```

gpiozero Traffic Lights

```
from gpiozero import TrafficLights


lights = TrafficLights(22, 27, 17)



lights.red.blink(1, 1)
lights.amber.blink(2, 2)
lights.green.blink(3, 3)
```
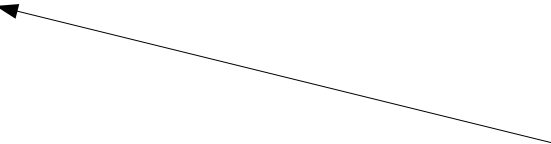
What do these numbers mean?

guizero

```
from gpiozero import TrafficLights
from guizero import App, Text, PushButton


lights = TrafficLights(22, 27, 17)


app = App()


PushButton(app, command=lights.red.on, text="on")


app.display()
```
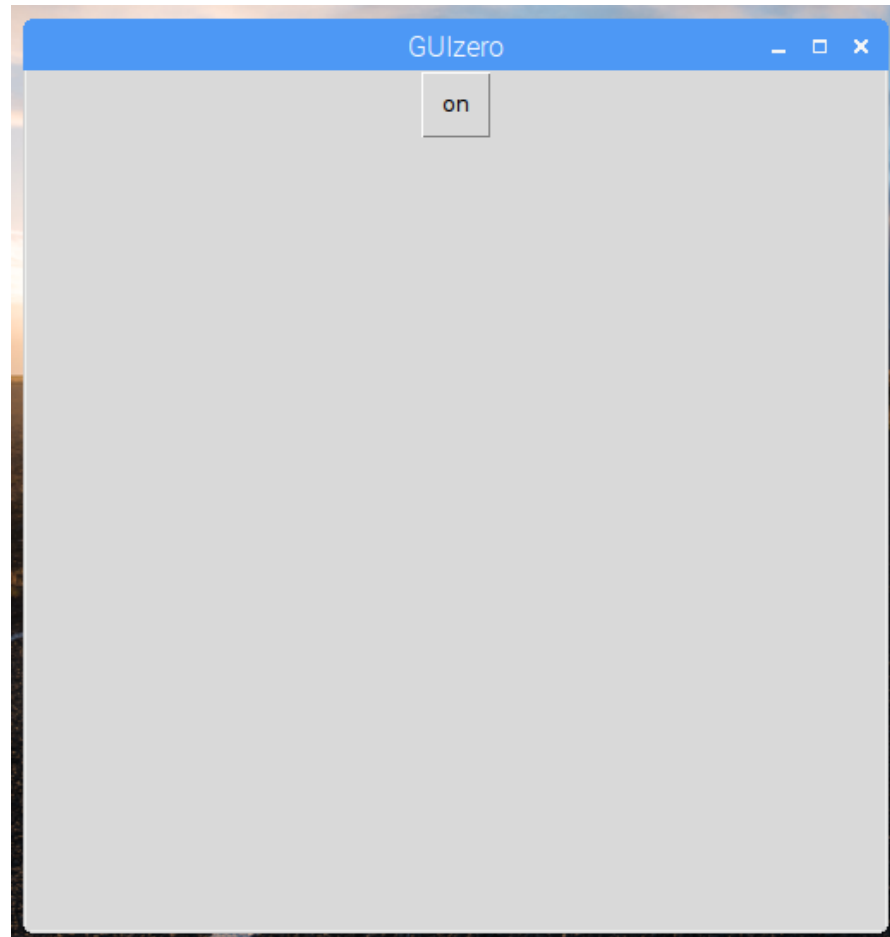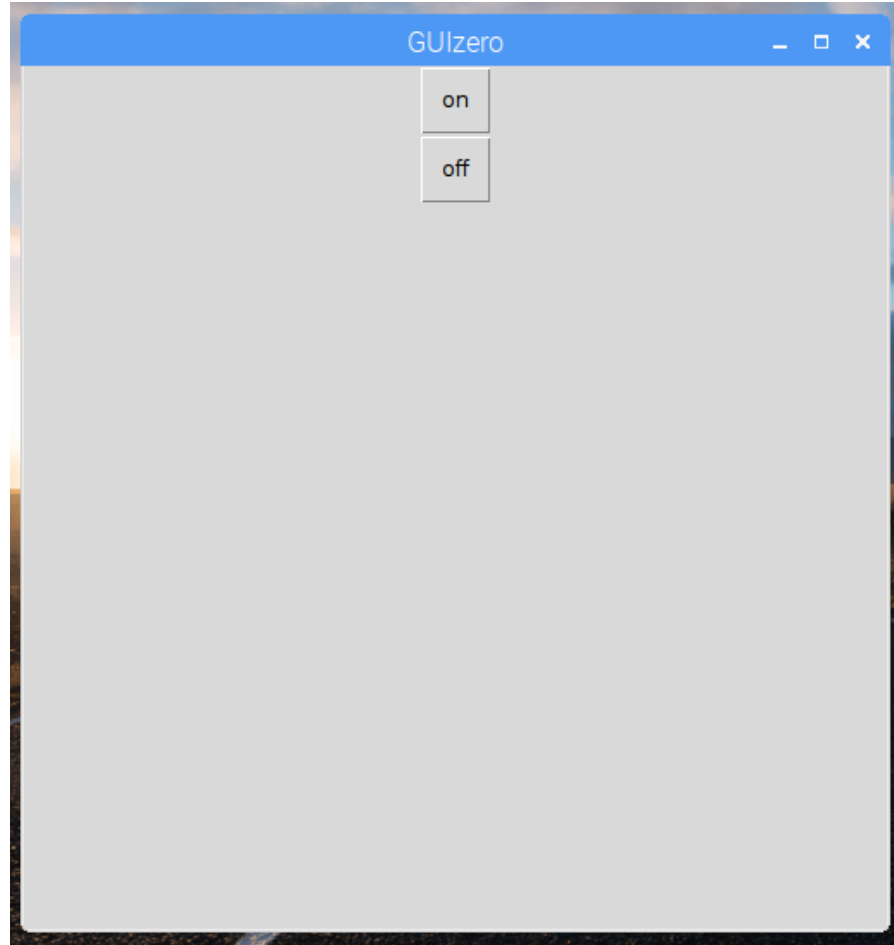
guizero

guizero buttons

```
app = App()


Text(app, "Red")

PushButton(app, command=lights.red.on, text="on")

PushButton(app, command=lights.red.off, text="off")


app.display()
```

guizero buttons

guizero grid layout

```
app = App("Traffic Lights controller", layout="grid")


Text(app, "Red", grid=[0, 0])

PushButton(app, command=lights.red.on, text="on", grid=[0, 1])

PushButton(app, command=lights.red.off, text="off", grid=[0, 2])


app.display()
```
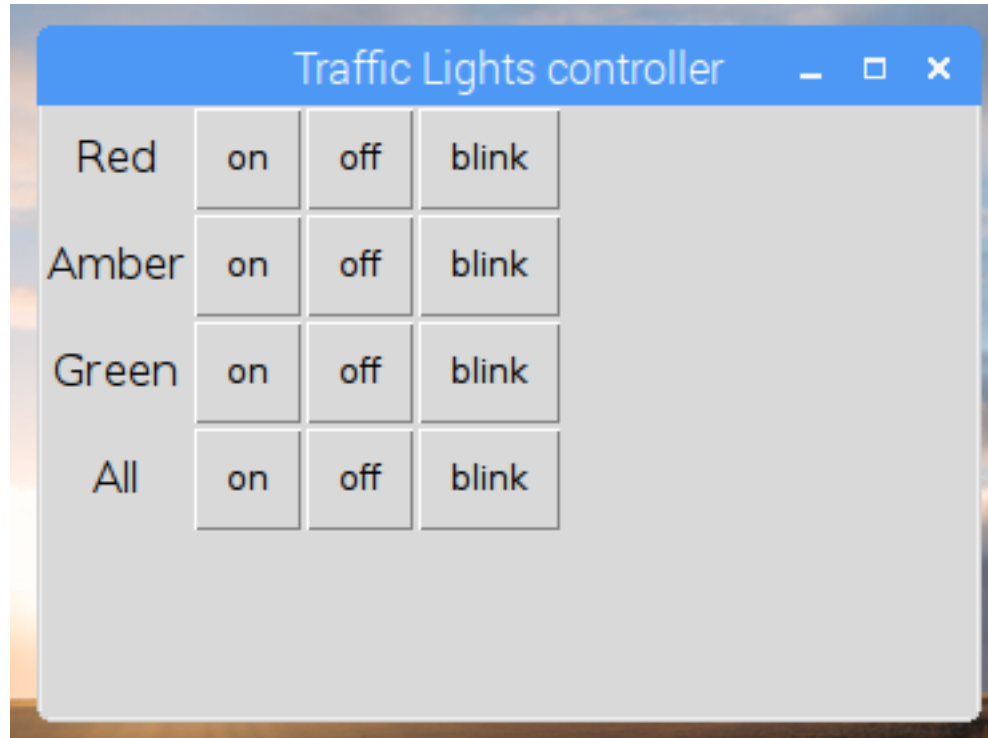
**This line MUST
go at the end**

Challenge

More challenges

- Can you use a different blink speed?

- Can you make the blink speed variable?

- Can you add a traffic lights sequence button?

- Can you add multiple traffic lights?