



SoSLUG - GPIO Starter Kit Software - 2 Traffic Lights

**Southend-on-Sea Linux
Users Group (SoSLUG)**
<http://www.soslug.org/>

Python Software

```
# TWO way traffic lights
#
# for showing the club one idea for the SoSlug BIKE

# Version 2.0    date 13/10/2014

# This works on Python ver 3.2

# Written by Ray Eacott

import RPi.GPIO as GPIO    # import Python GPIO module
import time                # import time module

# Assign GPIO pins numbers to Lights

GPIO.setmode(GPIO.BOARD) # use board numbers

Red1 = 12
Orange1 = 16
Green1 = 18
Red2 = 11
Orange2 = 13
Green2 = 15

# Delay times in seconds

Orange = 1 # Orange
Traffic = 5 # Traffic flowing through road works
Clear = 1 # clear

# Setup GPIO

GPIO.setup(Red1, GPIO.OUT)    # set pin Red1 to output
GPIO.setup(Orange1, GPIO.OUT) # set Orange1 to output
GPIO.setup(Green1, GPIO.OUT)  # set Green1 to output

GPIO.setup(Red2, GPIO.OUT)    # set Red2 to output
GPIO.setup(Orange2, GPIO.OUT) # set Orange2 to output
GPIO.setup(Green2, GPIO.OUT)  # set Green2 to output

# Switch on both Red lights all other lights off

GPIO.output(Red1, True)        # switch on Red1
GPIO.output(Orange1, False)    # switch off Orange1
GPIO.output(Green1, False)     # switch off Green1

GPIO.output(Red2, True)        # switch on Red2
GPIO.output(Orange2, False)    # switch off Orange2
GPIO.output(Green2, False)     # switch off Green2
```



SoSLUG - GPIO Starter Kit Software - Traffic Lights 2

Southend-on-Sea Linux
Users Group (SoSLUG)
<http://www.soslug.org/>

```
# to allow traffic to clear from the road works

time.sleep(Clear)

for lights in range(1,10):          # Repeat 10 times

    GPIO.output(Orange1, True)      # Orange on
    time.sleep(Orange)              # small delay
    GPIO.output(Red1, False)        # Red off
    GPIO.output(Orange1, False)     # Orange off
    GPIO.output(Green1, True)       # Green on

    time.sleep(Traffic)

    GPIO.output(Green1, False)
    GPIO.output(Orange1, True)
    time.sleep(Orange)
    GPIO.output(Orange1, False)
    GPIO.output(Red1, True)
    time.sleep(Clear)              # to allow traffic to clear from
the road works

    GPIO.output(Orange2, True)
    time.sleep(Orange)
    GPIO.output(Red2, False)
    GPIO.output(Orange2, False)
    GPIO.output(Green2, True)

    time.sleep(Traffic)

    GPIO.output(Green2, False)
    GPIO.output(Orange2, True)
    time.sleep(Orange)
    GPIO.output(Orange2, False)
    GPIO.output(Red2, True)
    time.sleep(Clear)              # to allow traffic to clear from
the road works

    next

GPIO.cleanup()
```