

Assignment-3:

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Smart waste management for metropolitan cities .

Question - Write python code for blinking LED and traffic lights for raspberry pi.

Program for blinking LED:

```
import time

import RPi.GPIO as GPIO

GPIO.setmode(GPIO.BOARD)

GPIO.setup(11, GPIO.OUT)

while True:

    GPIO.output(11,True)

    time.sleep(1)

    GPIO.output(11,False)

    time.sleep(1)

except KeyboardInterrupt:

    GPIO.cleanup()
```

Program for Traffic Light:

```
import RPi.GPIO as GPIO
```

```
import time
```

```
ledGreen = 16
```

```
ledYellow = 12
```

```
ledRed = 23
```

```
button = 19
```

```
GPIO.setmode(GPIO.BOARD)
```

```
GPIO.setup(16, GPIO.OUT)
```

```
GPIO.setup(12, GPIO.OUT)
```

```
GPIO.setup(23, GPIO.OUT)
```

```
GPIO.setup(19, GPIO.IN, pull_up_down=GPIO.UP)
```

```
while True:
```

```
    button_state = GPIO.input(19)
```

```
    if button_state == True:
```

```
        GPIO.output(16, True)
```

```
        time.sleep(1)
```

```
        GPIO.output(16, False)
```

```
GPIO.output(12,True)
time.sleep(1)
GPIO.output(12,False)
GPIO.output(23,True)
time.sleep(1)
GPIO.output(23,False)
time.sleep(1)
else:
    if button_state == False:
        GPIO.output(16,False)
        GPIO.output(12,False)
        GPIO.output(23,False)
        time.sleep(1)

except KeyboardInterrupt:
GPIO.cleanup()
```