

IOT BASED SMART FARMING -ASSIGNMENT 3

SUBMITTED BY SINDHUJA B (113219031141)

BACHELOR OF ENGINEERING IN COMPUTER SCIENCE AND ENGINEERING

Write python code for blinking LED and Traffic lights for Raspberry pi(Only Python code)

BLINKING LED:

```
import RPi.GPIO as GPIO

import time

GPIO.setmode(GPIO.BCM)

GPIO.setwarnings(False)

GPIO.setup(18,GPIO.OUT)

print "LED on"

GPIO.output(18,GPIO.HIGH)

time.sleep(1)

print "LED off"

GPIO.output(18,GPIO.LOW)
```

Traffic Lights:

```
import RPi.GPIO as GPIO

import time

import signal

import sys

# Setup

GPIO.setmode(GPIO.BCM)

GPIO.setup(9, GPIO.OUT)
```

```
GPIO.setup(10, GPIO.OUT)
```

```
GPIO.setup(11, GPIO.OUT)
```

Turn off all lights when user ends demo

```
def allLightsOff(signal, frame):
```

```
    GPIO.output(9, False)
```

```
    GPIO.output(10, False)
```

```
    GPIO.output(11, False)
```

```
    GPIO.cleanup()
```

```
    sys.exit(0)
```

```
signal.signal(signal.SIGINT, allLightsOff)
```

Loop forever

```
while True:
```

```
    # Red
```

```
    GPIO.output(9, True)
```

```
    time.sleep(3)
```

Red and amber

```
    GPIO.output(10, True)
```

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

Green

```
    GPIO.output(9, False)
```

```
    GPIO.output(10, False)
```

```
    GPIO.output(11, True)
```

```
    time.sleep(5)
```

Amber

GPIO.output(11, False)

GPIO.output(10, True)

time.sleep(2)

Amber off (red comes on at top of loop)

GPIO.output(10, False)