

ASSIGNMENT-3

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Team ID	PNT2022TMID10305
Project Name	Smart Farmer – IOT Enabled Smart Farming Application

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TOPIC: Write python code for blinking LED and Traffic lights for Raspberry pi.

CODE:

1)PYTHON CODE FOR BLINKING LED

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

```
import time
```

```
aa.setmode(aa.BOARD)
```

```
aa.setup(40,aa.OUT)
```

```
while 1:
```

```
    aa.output(40,0)
```

```
    time.sleep(2)
```

```
    aa.output(40,1)
```

```
    time.sleep(2)
```

2) PYTHON CODE FOR TRAFFIC LIGHT

```
GPIO.output(8, GPIO.LOW) # Turn off
Sleep (1) # Sleep for 1 second
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)
```