

Assignment -3

Date	1 november 2022
Team ID	PNT2022TMID20017
Project Name	Industry-specific intelligent fire management system
Maximum Marks	2 Marks

Question :

Write python code for blinking LED and Traffic lights for Raspberry

Solution:

1) PYTHON CODE FOR BLINKING LED

```
import RPi.GPIO as GPIO # Import Raspberry Pi GPIO library

from time import sleep # Import the sleep function from the time

GPIO.setwarnings(False) # Ignore warning for

GPIO.setmode(GPIO.BOARD) # Use physical pin

GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW) # Set pin 8 to be an output pin
set initial value to low

(off)

while True: # Run forever

    GPIO.output(8, GPIO.HIGH) # Turn on

    sleep(1) # Sleep for 1 second
```

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,
```

Team Members:

S. Kannan - 727819TUEC052

M.Anburaj - 727819TUEC007

K.Arunachalam - 727819TUEC012

G.Harish kumar - 727819TUEC040