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PROJECT TITLE	IoT Based Safety Gadget for Child Safety Monitoring and Notification

ASSIGNMENT-3

PYTHON CODE FOR BLINKING LED AND TRAFFIC LIGHTS FOR RASPBERRY PI

For LED:

import RPi.GPIO as GPIO # Import Raspberry Pi GPIO

library

from time import sleep #Import sleep function from the

time module

GPIO.setwarnings(False) #Ignore warning for now

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

GPIO.setup(8,GPIO.OUT,initial=GPIO.LOW)

#Set pin 8 to be an output pin and set initial value to low(off)

while True: #Run forever

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

sleep(1) #Sleep for 1 second

GPIO.output(8,GPIO.LOW) #Turn off

sleep(1) #Sleep for 1 second

For 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,framer):
  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)