# ASSIGNMENT-3

Python Programming

|  |  |
| --- | --- |
| Assignment Date | 12 October 2022 |
| Student Name | Karthick P |
| Student Roll Number | 714019106041 |
| Maximum Marks | 2 Marks |

WRITE A PYTHON CODE FOR BLINKING LED AND TRAFFIC LIGHTS FOR RASPBERRY PI. ONLY PYTHON CODE IS ENOUGH, NO NEED TO EXECUTE IN RASPBERRY

#Python code for blinding LED

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

from time import sleep # Import the 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

#Traffic lights for Raspberry Pi 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)