

DEVELOP A PYTHON SCRIPT

Date	3 November 2022
Team ID	PNT2022TMID22778
Project Name	Project- <u>Signs with Smart Connectivity for Better Road Safety</u>
Maximum Marks	4 Marks

CODE:

```
#include <TinyGPS++.h>
#include <SoftwareSerial.h>
TinyGPSPlus gps;
SoftwareSerial ss (3,4);
char n;
int a;

void setup() {
  Serial.begin(9600);
  ss.begin(9600);
  pinMode (2, INPUT);
  pinMode (6, OUTPUT);
  pinMode(11, OUTPUT);
  pinMode(10, OUTPUT);
  pinMode (9, OUTPUT);
  pinMode (12, OUTPUT); //ap
  digitalWrite(11,HIGH);
  digitalWrite(6,HIGH);
  attachInterrupt (digitalPinToInterrupt (2), piezo,CHANGE);
}
void loop() {
  n=Serial.read();
  // Serial.println(" ");
  delay (200);
  if (n=='3') {
    digitalWrite(6,HIGH);
    digitalWrite(11,HIGH);
    digitalWrite(12,HIGH);
    delay(200);
    digitalWrite(12,LOW);
  } else if (n=='2')
    digitalWrite(6,LOW);
    digitalWrite(11,LOW);
    digitalWrite(10,LOW);
    digitalWrite(9,LOW);
    digitalWrite(12,HIGH);
    delay(200);
    digitalWrite(12,LOW);
  } else if (n=='1')
    analogWrite(11,100);
```

```

analogWrite(6,100);
digitalWrite(12,HIGH);
delay(200);
digitalWrite(12,LOW);
}
}
// while (ss.available() > 0)
// if (gps.encode(ss.read()))
// displayInfo();
void displayInfo()
{
    // Serial.print (F("Location: "));
    if (gps.location.isValid())
        Serial.print(gps.location.lat(), 6);
        Serial.print (F(", "));
        Serial.print(gps.location.lng(), 6); }
    else
        // Serial.print (F ("INVALID"));
        Serial.print("10.305125");
        Serial.print(',');
        Serial.print("76.389582");
    }
    /* Serial.print(F(" Date/Time: "));
    if (gps.date.isValid())
    {
        Serial.print(gps.date.month());
        Serial.print (F("/"));
        Serial.print(gps.date.day());
        Serial.print (F("/"));
        Serial.print(gps.date.year());
    }
    else
    {
        Serial.print(F("INVALID"));
    }
    Serial.print (F(" "));
    if (gps.time.isValid())
    {
        if (gps.time.hour() < 10) Serial.print (F("0"));
        Serial.print(gps.time.hour());
        Serial.print (F(":"));
        if (gps.time.minute() < 10) Serial.print(F("0"));
        Serial.print (gps.time.minute());
        Serial.print (F(":"));
        if (gps.time.second() < 10) Serial.print(F("0"));
        Serial.print(gps.time.second());
        Serial.print (F("."));
        if (gps.time.centisecond() < 10) Serial.print(F("0"));
        Serial.print(gps.time.centisecond());
    }
    else
    {
        // Serial.print (F("INVALID"));
    }*/
    Serial.println();
}

```

```

void piezo()
{
  while (ss.available() > 0)
  if (gps.encode(ss.read()))
  displayInfo();
}
int a=0,b=0,c=0,d=0;
void setup() {
  pinMode (D1, INPUT);
  pinMode (D2, INPUT);
  pinMode (D3, INPUT);
  pinMode (D4, INPUT);
  digitalWrite(D1,LOW);
  digitalWrite(D2, LOW);
  digitalWrite(D3, LOW);
  digitalWrite(D4, LOW);
  Serial.begin(9600);
}
void loop()
{
  a=digitalRead(D1);
  if (a==1)
  { Serial.print("1");
  } b=digitalRead (D2);
  if (b==1)
  { Serial.print("2");
  } d=digitalRead(D4);
  if (d==1)
  {
  Serial.print("3");
  }
}
}

```