Smart GPS tracker system using aurdino

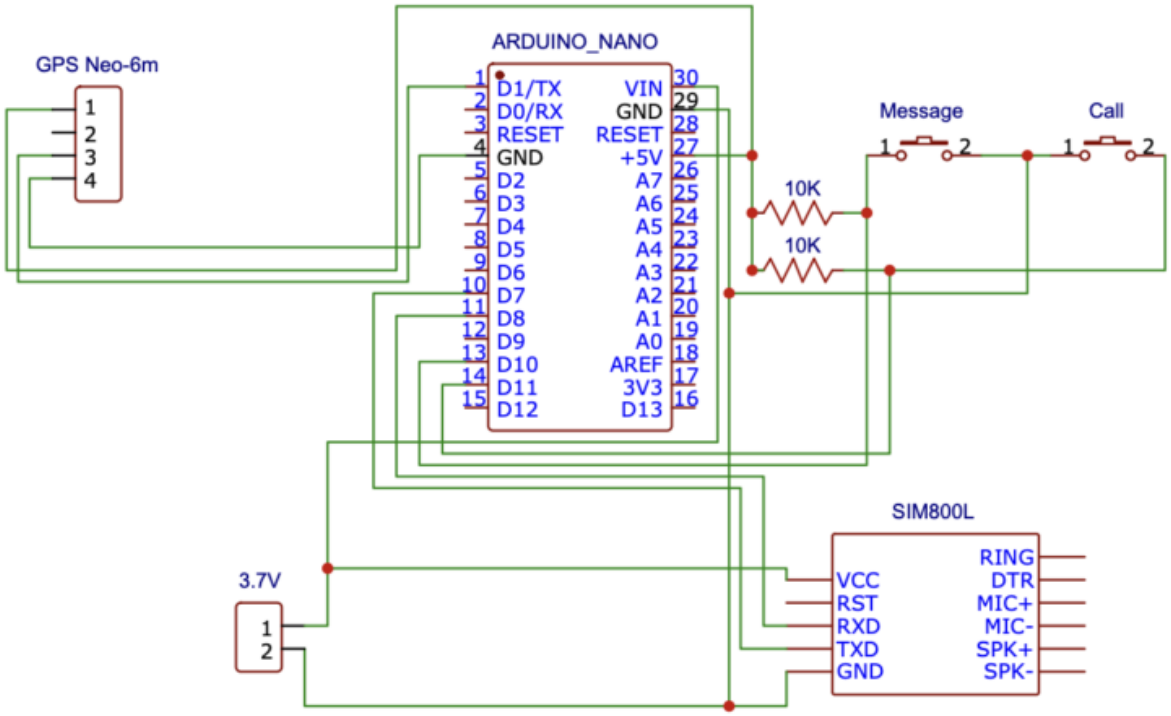
It will feature a GPS module to fetch the location coordinates (latitude and longitude) and a GSM module to send such coordinates to a mobile device via SMS.

How it Works:

GPS Module: NEO-6M is connected to an Arduino. The GPS communicates via serial to fetch the coordinates of the current location.

The GSM module: This module, which will be the SIM800L, sends an SMS of the coordinates to an already set phone number.

Microcontroller: It's the part where data, which comes from the GPS module, is to be handled by Arduino Uno and instruct the GSM module to send an SMS.



Code

```
#include <Wire.h>
SoftwareSerial Gsm(6, 7);
char phone_no[] = "+918310322559";
TinyGPS gps;
int state;
String textMessage;
void setup() {
  Serial.begin(9600);
  Gsm.begin(9600);
  Serial.print("AT+CMGF=1\r");
  delay(100);
```

```
  Serial.print("AT+CNMI=2,2,0,0,0\r");
  delay(100);
  pinMode(10, INPUT);
}

void loop() {
  bool newData = false;
  unsigned long chars;
  unsigned short sentences, failed;
  for (unsigned long start = millis(); millis() - start < 1000;) {
    while (Serial.available()) {
      char c = Serial.read();
      Serial.print(c);
      if (gps.encode(c))
        newData = true;
    }
  }
  if (Gsm.available() > 0) {
    textMessage = Gsm.readString();
    textMessage.toUpperCase();
    delay(10);
  }
  state = digitalRead(10);
  if (state == 0)
  //Prateek
  //www.justdoelectronics.com

  {
    float flat, flon;
    unsigned long age;
    gps.f_get_position(&flat, &flon, &age);
    Gsm.print("AT+CMGF=1\r");
    delay(400);
    Gsm.print("AT+CMGS=\"");
    Gsm.print(phone_no);
    Gsm.println("\"");
    Gsm.println("Alert I need help.....");
    Gsm.print("http://maps.google.com/maps?q=loc:");
    Gsm.print(flat == TinyGPS::GPS_INVALID_F_ANGLE ? 0.0 : flat, 6);
```

```
    Gsm.print(",");
    Gsm.print(flon == TinyGPS ::GPS_INVALID_F_ANGLE ? 0.0 : flon, 6);
    delay(200);
    Gsm.println((char)26);
    //Prateek
    //www.justdoelectronics.com

    delay(200);
    Gsm.println();
    Serial.println("SMS Sent");

    Serial.println("Call");
    delay(20000);
    Gsm.println("ATD+91xxxxxxxxxx;");
    delay(150000);
    Gsm.println("ATH");
    delay(1000);

  } else {
    delay(10);
  }
  Serial.println(failed);
}
```