# SOURCE CODE

## ARDUINO IDE MAIN ACTIVITY

#include <SoftwareSerial.h> ;

#include <TinyGPS.h>;

SoftwareSerial mySerial(9, 10); char msg;

char call;

const int pingPin = 7; // Trigger Pin of Ultrasonic Sensor const int echoPin = 6; // Echo Pin of Ultrasonic Sensor int fsrAnalogPin = 0; // FSR is connected to analog 0

int fsrReading; // the analog reading from the FSR resistor divider float lat ,lon ; // create variable for latitude and longitude object SoftwareSerial gpsSerial(3,4);//rx,tx

TinyGPS gps; // create gps object

void setup() { mySerial.begin(9600);

Serial.begin(9600); // Starting Serial Terminal Serial.println("The GPS Received Signal:"); gpsSerial.begin(9600);

}

void loop() {

while(gpsSerial.available()){ // check for gps data if(gps.encode(gpsSerial.read()))// encode gps data

{

gps.f\_get\_position(&lat,&lon); // get latitude and longitude

Serial.print(lat); Serial.print(" "); Serial.print(lon); Serial.print(" ");

}

}

String latitude = String(lat,6); String longitude = String(lon,6);

Serial.println(latitude+";"+longitude); delay(1000);

long duration, inches, cm; unsigned long seconds=1000L; pinMode(pingPin, OUTPUT); digitalWrite(pingPin, LOW); delayMicroseconds(2); digitalWrite(pingPin, HIGH); delayMicroseconds(10); digitalWrite(pingPin, LOW); pinMode(echoPin, INPUT);

duration = pulseIn(echoPin, HIGH);

inches = microsecondsToInches(duration); cm = microsecondsToCentimeters(duration); fsrReading = analogRead(fsrAnalogPin); Serial.print("Analog reading = "); Serial.println(fsrReading); Serial.print(inches);

Serial.print("in, "); Serial.print(cm); Serial.print("cm"); Serial.println();

if(cm >10 || fsrReading >100){

mySerial.println("AT+CMGF=1"); //Sets the GSM Module in Text Mode delay(1000); // Delay of 1000 milli seconds or 1 second

mySerial.println("AT+CMGS=\"+918825739212\"\r"); // Replace x with mobile number

delay(1000);

mySerial.println("EMETGENCY!!!!! SEND AN AMBULANCE TO THE

SHARED LOCATION ",latttitude," and ",longitude );// The SMS text you want to send

delay(100);

mySerial.println((char)26);// ASCII code of CTRL+Z delay(1000);

exit(0);

}

delay(seconds);

}

long microsecondsToInches(long microseconds) { return microseconds / 74 / 2;

}

long microsecondsToCentimeters(long microseconds) { return microseconds / 29 / 2;

}