#include <TinyGPS++.h>

#include <SoftwareSerial.h>

static const int buzzer = 8, button = 6;

static const int RXgps = 3, TXgps = 4;

static const int gsmtx = 9, gsmrx = 10;

static const uint32\_t gps\_baudrate = 9600;

String textMessage;

float Lat = 0, Lon = 0;

int Day = 0,Month = 0, Year = 0, Hour = 0, Minute = 0, Second = 0;

SoftwareSerial gsm(gsmtx, gsmrx);

TinyGPSPlus gps;

SoftwareSerial pos(RXgps, TXgps);

void setup()

{

Serial.begin(9600);

gsm.begin(9600); // Setting the baud rate of GSM Module

pos.begin(gps\_baudrate);

pinMode(buzzer , OUTPUT);

pinMode(button , OUTPUT);

}

void loop()

{

while(digitalRead(button)== HIGH)

{

for (int i = 0; i < 15; i++)

{

tone(buzzer, 1000);

delay(100);

tone(buzzer, 2000);

delay(100);

}

noTone(buzzer);

digitalWrite(button,LOW);

coordinate();

Message();

break;

}

}

void Message()

{

gsm.println("AT+CMGF=1"); //Sets the GSM Module in Text Mode

delay(1000); // Delay of 1 second

gsm.println("AT+CMGS=\"+919495479178\"\r"); // Replace x with mobile number

delay(1000);

Display();

delay(100);

gsm.println((char)26);// ASCII code of CTRL+Z for saying the end of sms to the module

delay(100);

}

void coordinate()

{

if (millis() > 8000 && gps.charsProcessed() < 3)

{

Serial.println(F("No GPS detected: check wiring."));

}

while (pos.available() > 0)

{

if (gps.encode(pos.read()))

{

time\_Convert();

delay(1000);

break;

}

}

digitalWrite(6,LOW);

delay(1000);

}

void time\_Convert() // GPS FUNCTION

{

//Serial.print(F("Location: "));

if (gps.location.isValid())

{

Lat = gps.location.lat();

Lon = gps.location.lng();

}

// Serial.print(F(" Date/Time: "));

if (gps.date.isValid())

{

Day = gps.date.day();

Month = gps.date.month();

Year = gps.date.year();

}

else

{

Serial.print(F("INVALID"));

}

//Serial.print(F(" "));

if (gps.time.isValid())

{

int h = 0;

if (gps.time.minute() > 29)

h++;

if (gps.time.hour() > 17 & gps.time.minute()>29)

{

Hour = gps.time.hour()-19+h;

}

else

{

Hour = gps.time.hour()+5+h;

}

if (gps.time.minute() < 30)

Minute = gps.time.minute()+30;

else

{

Minute = gps.time.minute()-30;

}

if (gps.time.second() < 10)

Second = gps.time.second();

}

else

{

Day = 0;

Month = 0;

Year = 0;

Hour = 0;

Minute = 0;

Second = 0;

}

digitalWrite(button, LOW);

}

void Display()

{

Serial.println("I need HELP.\nLocation: " + String("Lat: ") +String(Lat) + " "+String("Lon: ") + String(Lon));

gsm.println("I need HELP.\nLocation: " + String("Lat: ") +String(Lat) + " "+String("Lon: ") + String(Lon));

gsm.println("Time: " +String(Hour) + ":"+ String(Minute)+":"+ String(Second));

Serial.println("Time: " +String(Hour) + ":"+ String(Minute)+":"+ String(Second));

gsm.println("Date: " +String(Day) + "/"+ String(Month)+"/"+ String(Year));

Serial.println("Date: " +String(Day) + "/"+ String(Month)+"/"+ String(Year));

}