#include <DFRobot\_sim808.h>

//Mobile phone number, need to change

#define PHONE\_NUMBER "+15195721264"

//The content of messages sent

//#define MESSAGE "http://maps.google.com/maps?q=%s,%s"

DFRobot\_SIM808 sim808(&Serial);

char POSITION\_MESSAGE[300];

char lat[12];

char lon[12];

void sendSMS();

void getGPS();

void setup() {

//mySerial.begin(9600);

Serial.begin(9600);

//\*\*\*\*\*\*\*\* Initialize sim808 module \*\*\*\*\*\*\*\*\*\*\*\*\*

while(!sim808.init()) {

delay(1000);

Serial.print("Sim808 init error\r\n");

}

Serial.println("Sim808 init success");

//Serial.println("Start to send message ...");

//\*\*\*\*\*\*\*\* define phone number and text \*\*\*\*\*\*\*\*\*\*

//sim808.sendSMS(PHONE\_NUMBER,MESSAGE);

}

void loop() {

getGPS();

sim808.sendSMS(PHONE\_NUMBER,POSITION\_MESSAGE);

//sendSMS();

delay(1000);

}

void getGPS()

{

while(!sim808.attachGPS())

{

Serial.println("Open the GPS power failure");

delay(1000);

}

delay(3000);

Serial.println("Open the GPS power success");

while(!sim808.getGPS())

{

}

delay(3000);

Serial.print(sim808.GPSdata.year);

Serial.print("/");

Serial.print(sim808.GPSdata.month);

Serial.print("/");

Serial.print(sim808.GPSdata.day);

Serial.print(" ");

Serial.print(sim808.GPSdata.hour);

Serial.print(":");

Serial.print(sim808.GPSdata.minute);

Serial.print(":");

Serial.print(sim808.GPSdata.second);

Serial.print(":");

Serial.println(sim808.GPSdata.centisecond);

Serial.print("latitude :");

Serial.println(sim808.GPSdata.lat);

Serial.print("longitude :");

Serial.println(sim808.GPSdata.lon);

Serial.print("speed\_kph :");

Serial.println(sim808.GPSdata.speed\_kph);

Serial.print("heading :");

Serial.println(sim808.GPSdata.heading);

Serial.println();

float la = sim808.GPSdata.lat;

float lo = sim808.GPSdata.lon;

float ws = sim808.GPSdata.speed\_kph;

dtostrf(la, 4, 6, lat); //put float value of la into char array of lat. 4 = number of digits before decimal sign. 6 = number of digits after the decimal sign.

dtostrf(lo, 4, 6, lon); //put float value of lo into char array of lon

sprintf(POSITION\_MESSAGE, "http://maps.google.com/maps?q=%s,%s", lat, lon);

Serial.println(POSITION\_MESSAGE);

delay(3000);

//sim808.sendSMS(PHONE\_NUMBER,POSITION\_MESSAGE);

sim808.detachGPS();

}