



```
String phonenumber;
int readaddr = 0;
String value = "";
String readnumber2 = "";
int readaddr2 = 0;
String value2 = "";
int address = 0;
//
//
void setup() {
  Serial.begin(9600);
  gsm.begin(9600);
  delay(10000);
  gsm.println("AT+CMGDA=\"DEL ALL\""); //Delete all Previous Messages
  delay(1000);
  gsm.println("AT+CMGF=1");
  delay(1000);
  gsm.println("AT+CNMI=1,2,0,0,0"); //Set to Read Message
  delay(1000);
  pinMode(gpsLed, OUTPUT);
  pinMode(gsmLed, OUTPUT);
  pinMode(relay, OUTPUT);
  //
  value = String(EEPROM.read(readaddr));
  readnumber = readnumber + value;
  readaddr = readaddr + 1;
  delay(10);
  value = String(EEPROM.read(readaddr));
  readnumber = readnumber + value;
  readaddr = readaddr + 1;
  delay(10);
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delay(10);
value = String(EEPROM.read(readaddr));
readnumber = readnumber + value;
delay(10);
//
}

void loop() {
  //Receives Incoming Messages
  if (gsm.available() > 0 && latitude != "" && longitude != "")
  {
    readtext="";
    while(gsm.available())
    {
      char CharRead = gsm.read();
      readtext += CharRead;
    }
    delay(10);
    readtext.toUpperCase();
    if (readtext.indexOf("ALERT") >= 0){
      sendSMS();
    }
    if (readtext.indexOf("STOP") >= 0){
      digitalWrite(relay, HIGH);
      sendSMS();
    }
    if (readtext.indexOf("CHANGE") >= 0){
      int checkCount = 0;
      int numberCount = 0;
      for(int i = 0; i + 1 <= readtext.length(); i++){
        String checkText = readtext.substring(i, i + 1);

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    if (checkText == "T"){
        checkCount = 1;
    }
    if (checkText == "+" && checkCount == 1){
        checkCount = 2;
    }
    if (checkCount == 2){
        numberCount++;
        if (numberCount > 4 && numberCount < 15){
            phonenumber += checkText;
        }
    }
}
phonenumber = "0" + phonenumber;
saveContact();
}
}
//
//Recieves Incoming Messages
else if (gsm.available() > 0 && latitude == "" && longitude == ""){
    readtext="";
    while(gsm.available())
    {
        char CharRead = gsm.read();
        readtext += CharRead;
    }
    delay(10);
    readtext.toUpperCase();
    if (readtext.indexOf("ALERT") >= 0){
        if (readnumber.length() == 11){
            //

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digitalWrite(gsmLed, HIGH);
//gsm routine
gsm.println("AT+CMGF=1");
delay(100);
gsm.write("AT+CMGS=\");
gsm.print(readnumber);
gsm.write("\r");
delay(100);
gsm.println("Please Wait, No New GPS Data Received Yet.");
delay(100);
gsm.println((char)26);           //the ASCII code of the ctrl+z is 26
//Delete all Message
gsm.println("AT+CMGDA=\DEL ALL\"); //Delete all Previous Messages
delay(1000);
gsm.println("AT+CNMI=1,2,0,0,0"); //Set to Read Message
delay(1000);
digitalWrite(gsmLed, LOW);
requestCode = 1;
}
}
if (readtext.indexOf("STOP") >= 0){
digitalWrite(relay, HIGH);
if (readnumber.length() == 11){
//
digitalWrite(gsmLed, HIGH);
//gsm routine
gsm.println("AT+CMGF=1");
delay(100);
gsm.write("AT+CMGS=\");
gsm.print(readnumber);
gsm.write("\r");
}
}

```

```

delay(100);
gsm.println("Please Wait, No New GPS Data Received Yet.");
delay(100);
gsm.println((char)26);           //the ASCII code of the ctrl+z is 26
//Delete all Message
gsm.println("AT+CMGDA=\"DEL ALL\""); //Delete all Previous Messages
delay(1000);
gsm.println("AT+CNMI=1,2,0,0,0"); //Set to Read Message
delay(1000);
digitalWrite(gsmLed, LOW);
requestCode = 1;
}
}
if (readtext.indexOf("CHANGE") >= 0){
    int checkCount = 0;
    int numberCount = 0;
    for(int i = 0; i + 1 <= readtext.length(); i++){
        String checkText = readtext.substring(i, i + 1);
        if (checkText == "T"){
            checkCount = 1;
        }
        if (checkText == "+" && checkCount == 1){
            checkCount = 2;
        }
        if (checkCount == 2){
            numberCount++;
            if (numberCount > 4 && numberCount < 15){
                phonenumber += checkText;
            }
        }
    }
}
}
}

```

```

    phonenumber = "0" + phonenumber;
    saveContact();
}
}
else {
    bool newData = false;
    unsigned long chars;
    unsigned short sentences, failed;
    // For one second we parse GPS data and report some key values
    for (unsigned long start = millis(); millis() - start < 1000;)
    {
        while (Serial.available())
        {
            char c = Serial.read();
            // Serial.write(c); // uncomment this line if you want to see the GPS data flowing
            if (gps.encode(c)) // Did a new valid sentence come in?
                newData = true;
        }
    }
    if (newData)
    {
        float flat, flon;
        unsigned long age;
        gps.f_get_position(&flat, &flon, &age);
        //
        latitude = String(flat == TinyGPS::GPS_INVALID_F_ANGLE ? 0.0 : flat, 6);
        longitude = String(flon == TinyGPS::GPS_INVALID_F_ANGLE ? 0.0 : flon, 6);
        //
        digitalWrite(gpsLed, HIGH);
        //
        if (requestCode == 1){

```





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EEPROM.write(address,c.toInt());
address = address + 1;
delay(10);
EEPROM.write(address,d.toInt());
address = address + 1;
delay(10);
EEPROM.write(address,e.toInt());
address = address + 1;
delay(10);
EEPROM.write(address,f.toInt());
address = address + 1;
delay(10);
EEPROM.write(address,g.toInt());
address = address + 1;
delay(10);
EEPROM.write(address,h.toInt());
address = address + 1;
delay(10);
EEPROM.write(address,i.toInt());
address = address + 1;
delay(10);
EEPROM.write(address,j.toInt());
address = address + 1;
delay(10);
EEPROM.write(address,k.toInt());
delay(10);
//
onenumber = "";
address = 0;
//
readContact();
```



```
readnumber2 = readnumber2 + value2;
readaddr2 = readaddr2 + 1;
delay(10);
value2 = String(EEPROM.read(readaddr2));
readnumber2 = readnumber2 + value2;
readaddr2 = readaddr2 + 1;
delay(10);
value2 = String(EEPROM.read(readaddr2));
readnumber2 = readnumber2 + value2;
readaddr2 = readaddr2 + 1;
delay(10);
value2 = String(EEPROM.read(readaddr2));
readnumber2 = readnumber2 + value2;
readaddr2 = readaddr2 + 1;
delay(10);
value2 = String(EEPROM.read(readaddr2));
readnumber2 = readnumber2 + value2;
delay(10);
//
value2 = "";
readnumber = "";
readnumber = readnumber2;
readnumber2 = "";
readaddr2 = 0;
//
if (readnumber.length() == 11){
  digitalWrite(gsmLed, HIGH);
  //gsm routine
  gsm.println("AT+CMGF=1");
  delay(100);
  gsm.write("AT+CMGS=\");
```

```

gsm.print(readnumber);
gsm.write("\n\r");
delay(100);
gsm.println("New Phone Number: " + readnumber);
delay(100);
gsm.println((char)26);          //the ASCII code of the ctrl+z is 26
//Delete all Message
gsm.println("AT+CMGDA=\\"DEL ALL\"); //Delete all Previous Messages
delay(1000);
gsm.println("AT+CNMI=1,2,0,0,0"); //Set to Read Message
delay(1000);
digitalWrite(gsmLed, LOW);
}
}

```

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void sendSMS(){
  if (readnumber.length() == 11){
    //
    String textMessage = latitude + "AKIFAGO" + longitude;
    //
    digitalWrite(gsmLed, HIGH);
    //gsm routine
    gsm.println("AT+CMGF=1");
    delay(100);
    gsm.write("AT+CMGS=\");
    gsm.print(readnumber);
    gsm.write("\n\r");
    delay(100);
    gsm.println(textMessage);
    delay(100);
    gsm.println((char)26);          //the ASCII code of the ctrl+z is 26
  }
}

```

```
//Delete all Message
gsm.println("AT+CMGDA=\"DEL ALL\""); //Delete all Previous Messages
delay(1000);
gsm.println("AT+CNMI=1,2,0,0,0"); //Set to Read Message
delay(1000);
digitalWrite(gsmLed, LOW);
requestCode = 0;
}
}
```