



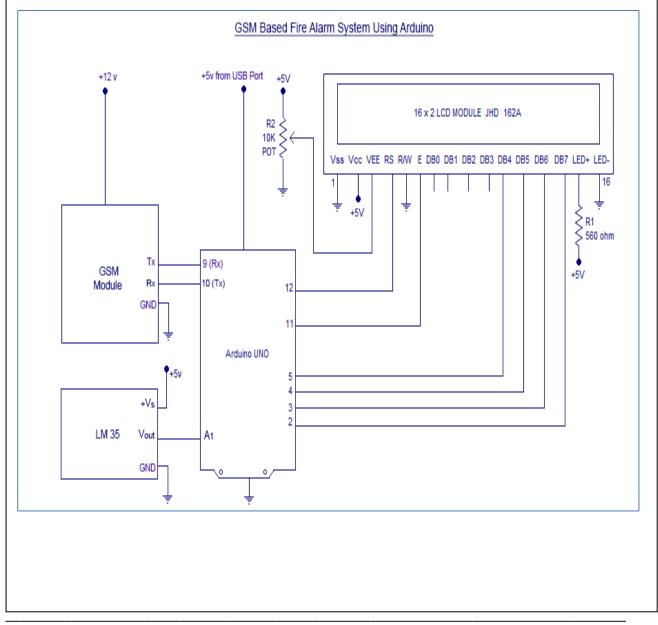
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Application 1 : GSM SIM900A on Fire Detection

Component Needed:

- GSM Module SIM900A
- LCD 16 X 2
- Arduino UNO
- A 10K potentiometer
- A 560ohm resistor
- LM35 temperature sensor

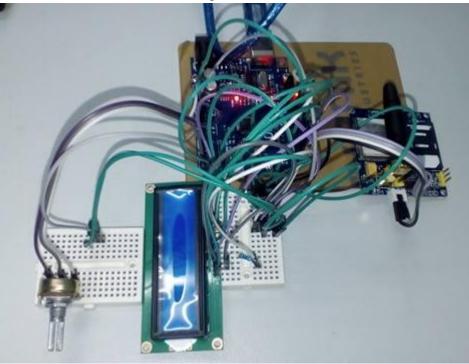
Connection:





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1. Make a connection as shown in figure above.



2. Then, upload the code (you can get the code from *Application_Sketch1*) into Arduino IDE.

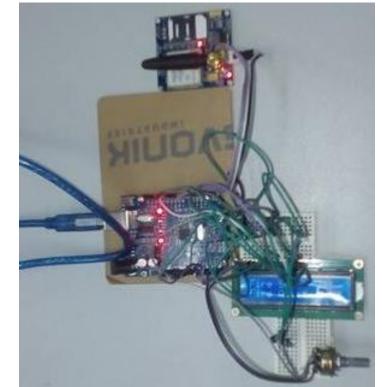
| File Edit Sketch | Tools Help | | | |
|--------------------------|-----------------------------------|-------------------------|------------------|----------|
| | 1 I | | | ₽ |
| fire_alarm | | | | |
| { | | | | ^ |
| mySerial.p delay(2000 | rintln("AT+CMGF=1")); | ; //To send | SMS in Text Mod | le |
| mySerial.p delay(2000 | rintln("AT+CMGS=\"+); | 919544xxxxxx\"\ | r"); // change | to th |
| mySerial.p delay(200) | rintln("Fire in NEW; | ROOM!");//the | content of the | messa |
| mySerial.p delay(5000 | rintln((char)26);//); | the stopping ch | haracter | |
| mySerial. delay(2000 | <pre>println("AT+CMGS=\");</pre> | +919847 xxxxx \' | "\r"); // change | to t |
| mySerial.p delay(200) | rintln("Fire in NEW | ROOM!");//the | content of the | messa |
| | rintln((char)26);// | the message sto | opping character | : |
| sms_count+ | +; | | | |
| } | | | | |
| | | | | ~ |
| < | | | | > |

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3. When system is operated, the LCD module will show "Fire Scan – On".



4. Then, give a heat to the LM35 sensor. When it detects the fire, the GSM module will sent a message to user.

Note: Once a fire accident occurs and the set number of SMS alerts has been sent, the system will not send any more SMS! The system assumes that its job is over by sending SMS. Humans have to come and shut down the fire. After sending alerts, the system will start monitoring Shut Down process. Once the Fire has been shut down, system will reactivate its SMS alert settings by resetting the sms_count variable back to zero.