# SMOKE DETECTOR DEVICE

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❖ INTRODUCTION:

A smoke detector is a smoke sensing device that indicates fire. This device will be very useful specially in our LABs, Mess, Classrooms, Hostels. We are implementing a simple smoke detector circuit using simple hardware.

❖ SYSTEM OVERVIEW:

➢ The sensor used in this project is MQ-2 Gas/Smoke sensor. It is sensitive to LPG, Hydrogen, Smoke, Methane, Propane, Alcohol, Butane and other industrial combustible gases.

➢ It has two electrodes made of Aluminum Oxide (Al2O3) and a heating element made of Tin dioxide (SnO_2) which acts as the main sensing layer.
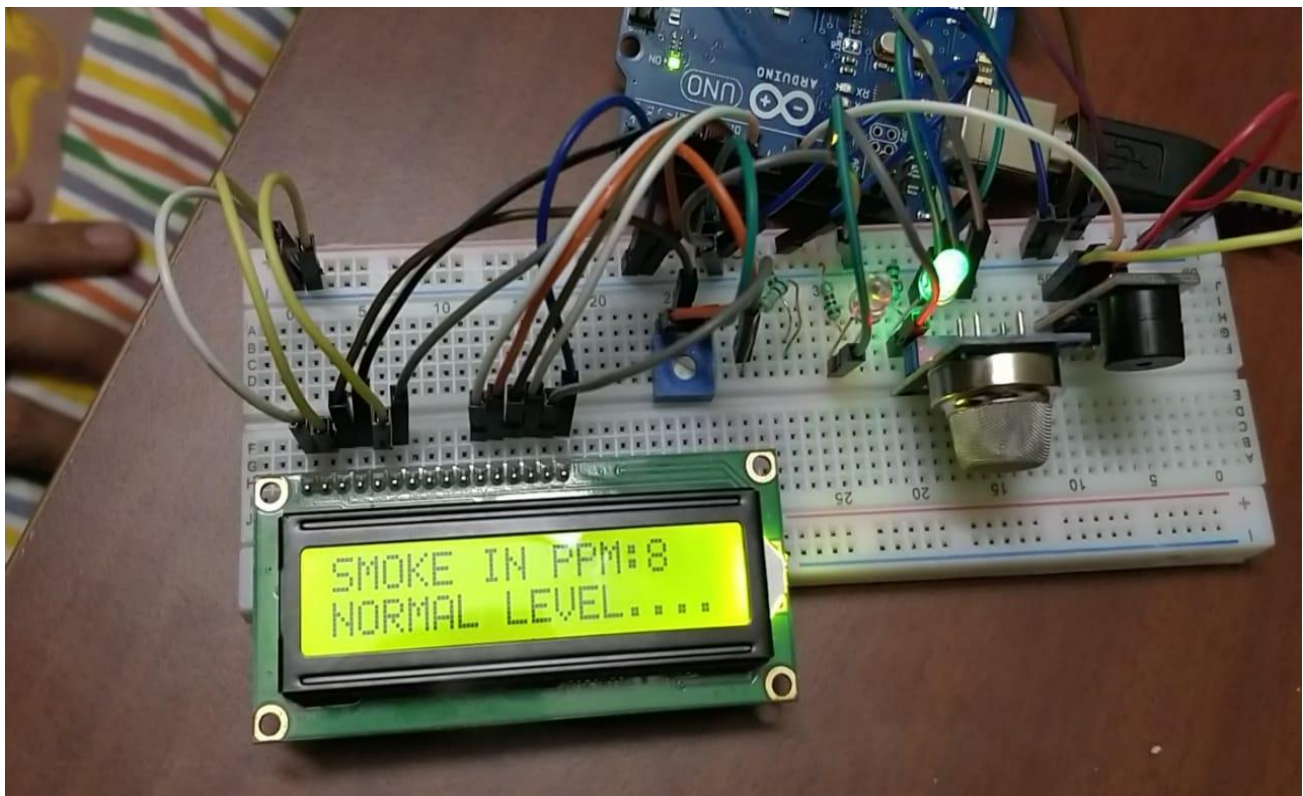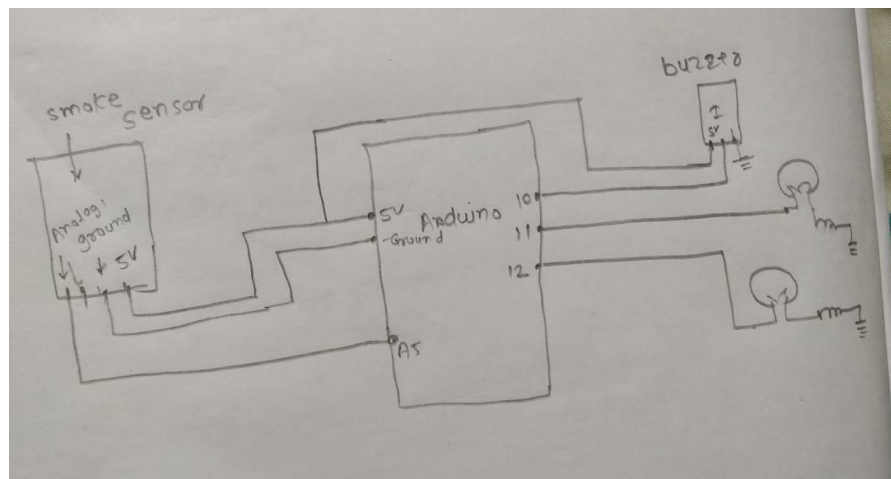

- Normal level when no smoke is there, green LED will glow
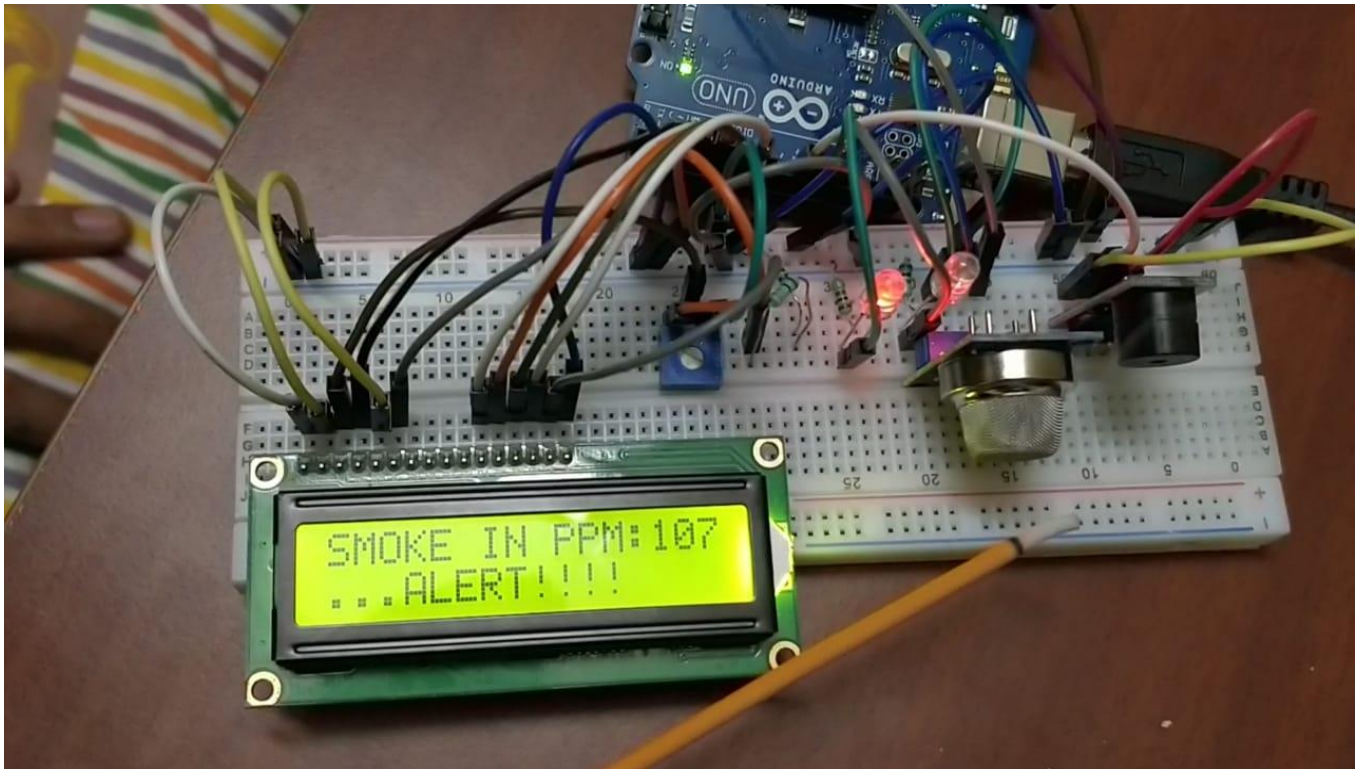
- When smoke is detected by the sensor red LED will glow.

❖ **COMPONENT REQUIRED**:

- MQ-2 GAS SENSOR
- BUZZER
- LEDs (RED)
- LCD Display
- Rheostat
- SWITCH
- RESISTOR
- ARDUINO
- WIRES
- BREAD BOARD

- **CIRCUIT DIAGRAM**

❖ RESULT:

This project presents the overall design of Smoke Detector device with low cost and it will help to detect gases such as CO2, SO2, CO and it will help you take action against that incident with time and can save many lives.

❖ Conclusion

In our hostel each floor has fire extinguisher installed but there is no device which can detect fire or smoke. so, this device will be very useful to detect smoke first and it will alert the students before any causality.