

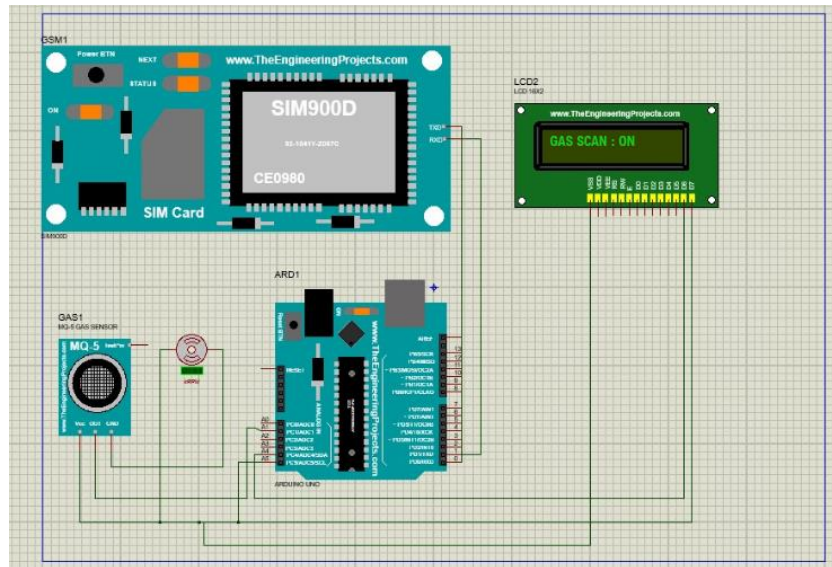
## Project Design Phase-II Technology Stack (Architecture & Stack)

|                      |   |
|----------------------|---|
| Date                 | 19 September 2022                                       |
| Team ID              | PNT2022TMID51246  |
| Project Name         | Gas Leakage monitoring & Alerting system for Industries |
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### Architecture:



## Technical Architecture:



### Technical :

- MQ5 gas sensor
- Arduino uno board
- GSM 800A module
- DC fan
- LCD display ( gas scan and alert)

### Functional:

- First detects the gas leak.
- Signal goes to Arduino
- DC fan tuns ON
- Alert SMS sent to user's mobile number
- Source valve turned OFF.

## DEVELOPMENT OF TASK ANALYSIS:

### Hardware Requirements

- 1) Arduino UNO Microcontroller
- 2) Green LED 1, Red LED 3
- 3) 9V Power supply (230V TO 9V STEPDOWN TRANSFORMER)
- 4) MQ6 Gas sensor

5) GSM 800 Module

6) GSM Sim

7) Connecting wires

8) Project base

### **Software Requirements**

1) Arduino IDE

2) Language C++

### **WORKING:**

**Step 1:** A signal from the microcontroller will go to the display and show gas leakage message there.

**Step 2:** Simultaneously automatically turns on the DC fan to ventilate the leaked gas, and the source solenoid valve will be turns off

**Step 3:** Signal from microcontroller activates the GSM module and sends an alert SMS “ALERT GAS LEAKING” to the user’s mobile number.