

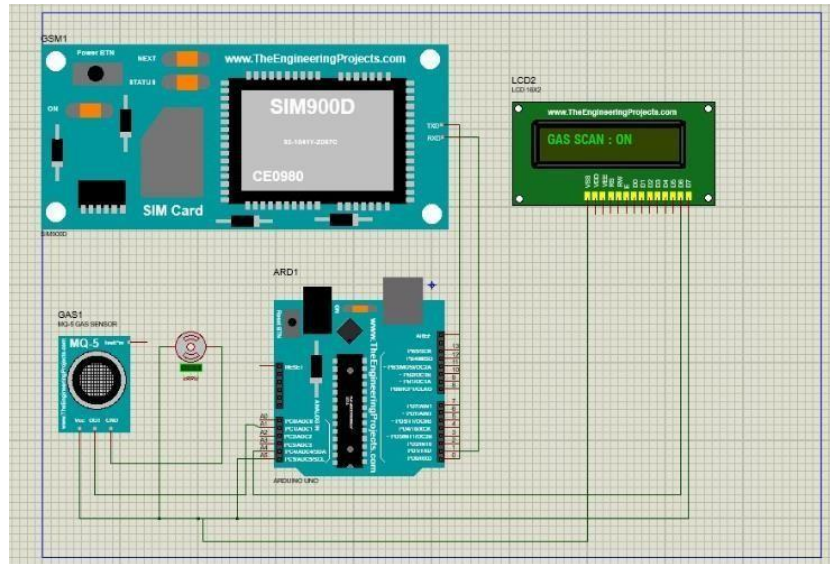
Project Design Phase-II Technology Stack (Architecture & Stack)

Date	06 November 2022
Team ID	PNT2022TMID04012
Project Name	Gas Leakage monitoring & Alerting system for Industries
Project TEAM members	Pranav S Aravindan G Jaikishore N Sharathkumar RG

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 turns 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.