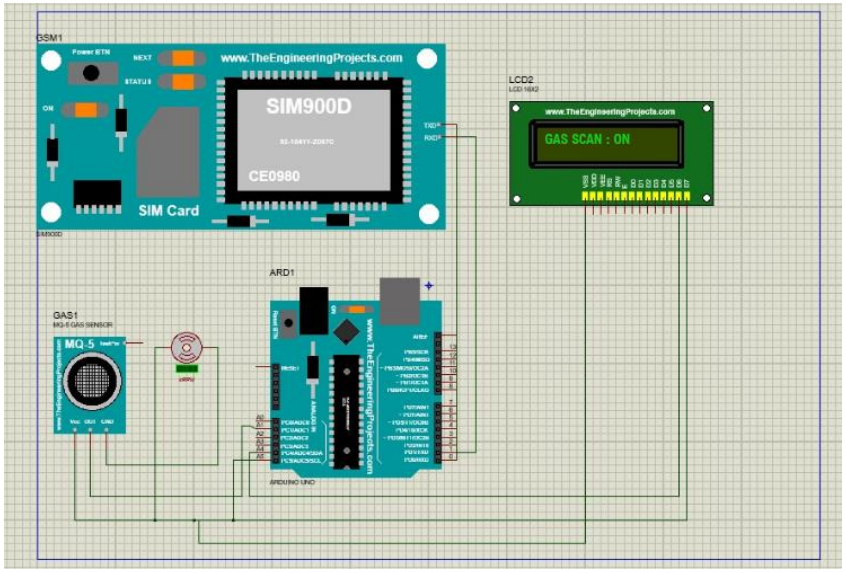
Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	19 September 2022
Team ID	PNT2022TMID21445
Project Name	Gas Leakage monitoring & Alerting system for Industries
Project TEAM members	19D114 – ARIKARASHRI. K 19D127 – NITHISH KUMAR. M 19D129 – RANJITH KUMAR. P 19D130 – RUTHRAM. M 19D135 – UDHAYAKUMAR. U

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.