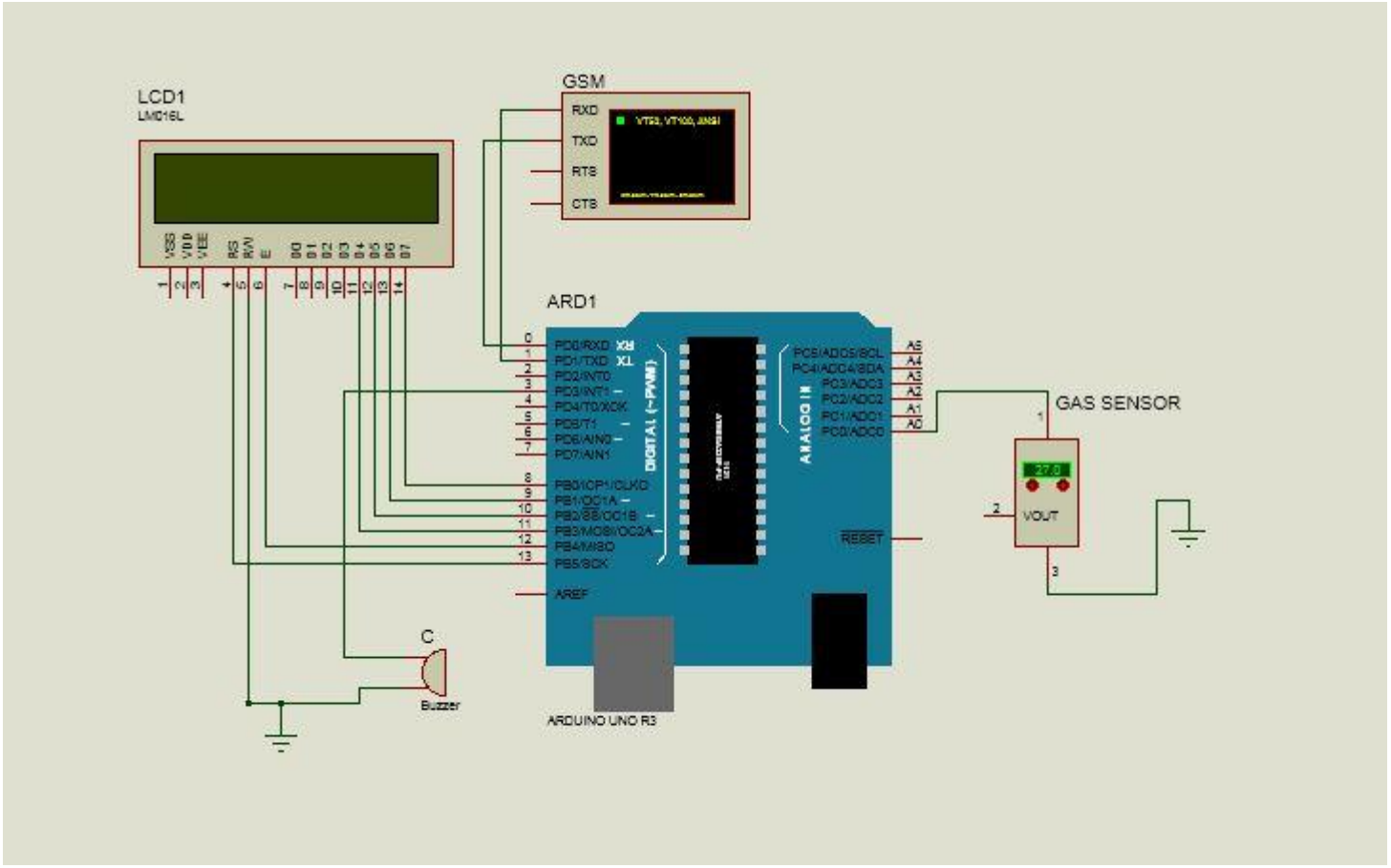
Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	13 October 2022
Team ID	PNT2022TMID04029
Project Name	Gas Leakage monitoring & Alerting system for Industries
Maximum Marks	4 Marks

TECHNICAL	FUNCTIONAL
❖ MQ5 Gas Sensor ❖ Arduino UNO ❖ GSM Module 800A ❖ DC Fan ❖ LCD Display	❖ To detect gas leakage. ❖ To transmit and receive signals and also controls the overall components in project. ❖ To transmit the alert message to the user. ❖ To exhaust the gas. ❖ To display the gas alert message or scan.

TECHNICAL ARCHITECTURE:



HARDWARE COMPONENTS:

1. Arduino UNO Microcontroller
2. 9V Power supply (230V TO 9V STEPDOWNTRANSFORMER)
3. MQ5 Gas sensor
4. GSM 800A Module
5. GSM Sim
6. Connecting wires
7. Project base
8. Buzzer

SOFTWARE COMPONENTS:

1. Arduino IDE
2. Language PYTHON

WORKING :

- A signal from the microcontroller will go to the display and show gas leakage message there , when the gas sensor detects the gas.

- Simultaneously automatically turns on the DC fan to ventilate the leaked gas, and the source solenoid valve will be turns off and the buzzer is turned on to alert the people in the industry.

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