

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	03 October 2022
Team ID	PNT2022TMID39853
Project Name	Gas Leakage Monitoring & Alerting System for Industries
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Location	1.Heavier Target Gas-Detector at lower level 2.Lighter Target Gas-Detector at Higher level
FR-2	Flow of Gas	Sensor
FR-3	Alarm Management	Indicators 1.Auditory alarm 2.light 3.CMMS
FR-4	Calibrating gas detectors	Bump Tests
FR-5	Ingress Protection Rating	1.IP 66 2.IP 77
FR-6	Non-corrosive Gases	1.IP 54

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	can detect leakage at homes, commercial premises or factories. Two highly important safety factors are considered in this system including: time and control . GLDS detects the leakage soon after it happened and sends users an immediate alarm on the incident.
NFR-2	Security	The security of gas leakage product is very secure, because it can produce alarm if any fault occurs.
NFR-3	Reliability	1.UEI gas leak combustible detector

		<p>2.Amprobe gas leak detector</p> <p>3.Ridgid combustible gas detector</p>
NFR-4	Performance	<p>Gas detectors utilize a sensor to gauge the grouping of specific gases in the air. The sensor fills in as a kind of perspective point and scale, creating a quantifiable electric flow when a compound response brought about by a particular gas happens.</p>
NFR-5	Availability	<p>The Techamor Y301 is a methane, propane, and combustible natural gas leak detector that has a voice alarm and a digital display. It detects gas leaks in your home for 24 hours a day from your kitchen.</p>
NFR-6	Scalability	<p>The most scalability of this gas leakage detector usually utilized size is 14 kilogram.</p>