

Project Design Phase-I

Problem Solution Fit

Date	15 October 2022
Team ID	PNT2022TMID14470
Project Name	Gas Leakage Monitoring and Alerting System

Define CS, fit into CL	1. CUSTOMER SEGMENT(S) CS 1) Day-To-Day LPG gas cylinder users and lpg gas using or manufacturing companies are our customers.	6. CUSTOMER LIMITATIONS <small>EG. BUDGET, DEVICES</small> CL 1)As it is lot based, it needs internet connectivity almost all the time and poor stability.	5. AVAILABLE SOLUTIONS <small>PLUSES & MINUSES</small> AS 1) Test benchers,Leak Tester etc are used to detect gas leakage in case any doubt of gas leakage.But gas leakage detector a helps us to monitor for gas leakage for all the time and alert us in advance.	Explore AS, differentiate
	2. PROBLEMS / PAINS <small>+ ITS FREQUENCY</small> PR 1)Leakage of gaseous product from cylinders or pipelines causes Quick and great explosion accidents . 2)Even if mild leakage is not considered it causes Health related problems . 3)It not only affects the current place it also cause great damage around us. 4)Most people died due to lack of medical attention on time due to the late intimation of gas leakage information.	9. PROBLEM ROOT / CAUSE RC 1) Lack of awareness. 2) Gas leaks can occur from defective rubber tubing ,faulty regulator fitting and poor handling of gas appliances. 3)leaving the dish unattended during cooking douses the burner and cause gas leak	7. BEHAVIOR <small>+ ITS INTENSITY</small> BE 1) It senses <ul style="list-style-type: none">MethaneButaneLPGPropane etc. 2)The another sensor senses for flame by measuring room temperature continously.	Focus on PR, tap into BE, understand RC
Focus on PR, tap into BE, understand RC	3. TRIGGERS TO ACT TR Gas leakage system acts as a mandatory precaution in every aspects for example,Fire extinguishers in factories, industries	10. YOUR SOLUTION SL 1) we can leave sensing work to sensors. 2)It detects and alerts the leakageof gas 3)It sends message to nearby fire station and to neighbors around us.	8. CHANNELS of BEHAVIOR CH Online: If any gas leakage or fire is detected then the alert message is intimated through online application	Extract online & offline CH of BE
	4. EMOTIONS <small>BEFORE / AFTER</small> EM Before: The society suffered many losses in accidents due to gas leakage. After: They can feel relaxed while handling harmful gases which are danger for lives.		Offline: The exhaust fans, water sprinklers can be fixed with buzzer alerting system.	
Identify strong TR & EM				