

Project Design Phase-I

Problem Solution fit

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Team ID	PNT2022TMID27080
Project Name	Gas Leakage Monitoring and Alerting System

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

CS

The industries using harmful gases for the manufacturing products and Household, who uses gas for cooking.

6. CUSTOMER CONSTRAINTS

CC

Cost of installing the products make them to move far from recent technology, Ability to detect the wide range of gases, Network connectivity, Environment factors etc.

5. AVAILABLE SOLUTIONS

AS

The sensor should sense the leakage of gas and alert the concerned authorities about the leakage and useful in real time.

Explore AS, differentiate

Focus on J&P, tap into BE, understand

2. JOBS-TO-BE-DONE / PROBLEMS

J&P

- Gas leakage leads to huge loss.
- Alerting the customer with SMS, Alarm system.
- Maintenance or monitoring of the system.
- Detect the gas leakage and identifying leaked gas.

9. PROBLEM ROOT CAUSE

RC

- Improperly installed tube fittings /poor tubing selection.
- Lack of awareness in handling.
- Improper use of gas furnace, stove, or appliance, including leaking due to gas lines being hooked up incorrectly.
- Use of defective equipment.

7. BEHAVIOUR

BE

- To create awareness among workers.
- Monitoring the system regularly.
- To determine the gas leakage area and alerts throughby warning message or alerting sound.
- Approach the people and create awareness by advertising the problems.

Focus on J&P, tap into BE, understand

3. TRIGGERS TO ACT

TR

Considering the safety measures for workers and future impacts of that work, smart technology.

4. EMOTIONS: BEFORE / AFTER

EM

Before: The leakage of gases causes heavy losses and made them feel depressed & guilt and also lose the recognition of their products.

After: Creating awareness and safety precautions to the workers to work without any fear

10. YOUR SOLUTION

SL

- Develop a cost efficient IoT based gas leakage detecting system which can be easily accessed by workers.
- If there is gas leak then it will alert the workers by sending SMS.

8. CHANNELS OF BEHAVIOUR

CH

ONLINE:

Promoting through social media, With the help of social media influencer. Users can also easy to monitor the live the reports.

OFFLINE:

Identifying the leakage area and take precautionary actions manually. It makes call to user. Frequently check the leakage of gas.