Project Design
Phase-I

Problem Solution fit

Date	OCTOBER 2022
Team ID	PNT2022TMID27112
Project Name	Gas Leakage Monitoring and Alerting System

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.

Define CS, fit into CC

Explore AS, differentiate

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 upincorrectly.
- 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

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.