

## Project Design Phase-I

### Problem Solution Fit

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| Date         | 11 November 2022  |
| Team ID      | PNT2022TMID22149  |
| Project Name | Gas leakage monitoring and alerting system for industries |

|   |  |   |  |                                   |
|---|--|---|--|-----------------------------------|
| Define CS, fit into CL                  | <b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span><br>The industrialists who use gases for their manufacturing.   | <b>6. CUSTOMER LIMITATIONS</b> <small>EG. BUDGET, DEVICES</small> <span>CL</span><br>High budget in installing other products make them to move far from modern technologies. | <b>5. AVAILABLE SOLUTIONS</b> <small>PLUSES &amp; MINUSES</small> <span>AS</span><br>The monitoring and controlling of the leakage could be done by the manpower. Even though man power could reduce electricity cost and monitor properly, it may cause high risk for their life. There is also a cause of some errors due to manpower. | Explore AS, differentiate         |
|   | <b>2. PROBLEMS / PAINS</b> <small>+ ITS FREQUENCY</small> <span>PR</span> <ul style="list-style-type: none"><li>Suffering from many losses due to gas leakage.</li><li>Having no proper system for controlling or monitoring the leakage.</li><li>Facing heavy budget problems in buying and installing a system for monitoring and controlling.</li></ul> | <b>9. PROBLEM ROOT / CAUSE</b> <span>RC</span><br>When the workers failed to monitor properly, the gas can cause high risk to their health or the properties of the industry. | <b>7. BEHAVIOR</b> <small>+ ITS INTENSITY</small> <span>BE</span> <ul style="list-style-type: none"><li>Using manpower as the source of monitoring the leakage causes high hazards.</li><li>If the gas leaked is heavily toxic, there is a chance of causing hereditary health issues too.</li></ul>                                     |                                   |
| Focus on PR, tap into BE, understand RC | <b>3. TRIGGERS TO ACT</b> <span>TR</span><br>The heavy damages or higher health issues due to the toxic gases urges them to find out a solution as soon as they could possible.  | <b>10. YOUR SOLUTION</b> <span>SL</span><br>Develop an efficient system & an application that can monitor and alert the workers.  | <b>8. CHANNELS of BEHAVIOR</b> <span>CH</span><br>Promoting through social media. With the help of social media entrepreneurs/influencer.  | Extract online & offline CH of BE |
|   | <b>4. EMOTIONS</b> <small>BEFORE / AFTER</small> <span>EM</span><br><b>Before:</b> The heavy losses due to the leakages made them feel of guilt due to reduced reputation of their products.<br><b>After:</b> Increased the level of confidence and feel secured   |   | <b>OFFLINE</b><br>Through newspaper advertisements.  |                                   |
| Identify strong TR & EM                 |  |   |  |                                   |