

Project Design Phase-I - Solution Fit

Project Title: Gas Leakage Monitoring and Alerting System

Team ID: PNT2022TMID32463

TEAM MEMBERS:

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| 1.CUSTOMER SEGMENTS <ul style="list-style-type: none">✓ For industry owner-Ensuring the safety of workers is the main thing.✓ Sometimes it is hard to identify the area where the leakage occurs.✓ The detection of leakage prevents the loss of lives | 6. CUSTOMER CONSTRAINTS <ul style="list-style-type: none">✓ Proper maintenance should be taken atleast once in a month and this prevents the customers from taking actions in gas leakage problem. | 5. AVAILABLE SOLUTIONS <ul style="list-style-type: none">✓ Usage of sensors to sense gas Leakage.✓ Buzzer to indicate the leakage.✓ GSM module helps us to get notification when there is a gas leakage. |
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| 2. JOBS-TO-BE-DONE / PROBLEMS <ul style="list-style-type: none"> ✓ Capability of the device to withstand in harsh environment is questionable. ✓ Due to network issue data couldn't be uploaded to the cloud at all times. | 9. PROBLEM ROOT CAUSE <ul style="list-style-type: none"> ✓ Sometimes sensor doesn't work properly which can cause the major problem. ✓ Location of the device installation and the network plan used by the user are the root cause of the network issue. | 7. BEHAVIOUR <ul style="list-style-type: none"> ✓ Network issue is very common as most of the industries are located at the country side. Here contact both the developers and the service providers. ✓ To determine the gas characteristics and solve the issue, they will locate the leak and identify the warning. |
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| 3. TRIGGERS <ul style="list-style-type: none"> ✓ Accidents due to gas leakages and loss of physical property and life. ✓ Safe precautions for the workers to work without fear. | 10. YOUR SOLUTION <ul style="list-style-type: none"> ✓ Low cost IOT based device that can be easily accessed and fixed by people. ✓ Network strength must be boosted in the device. ✓ Device can be manufactured in multiple standards based on the environment. | 8. CHANNELS OF BEHAVIOUR <p>ONLINE</p> <ul style="list-style-type: none"> ✓ Monitor the status of the sensors ✓ Notification incase of any gas leakage. <p>OFFLINE</p> <ul style="list-style-type: none"> ✓ Prevent physical damage to sensor. ✓ Provide proper network and power supply to sensors. ✓ Complaint letters. |
| 4. EMOTIONS: Before/After <ul style="list-style-type: none"> ✓ Before the action is taken the user feels deceived and cheated. ✓ After the problem is resolved user feels the sincerity of the developer | | |