

Project Design Phase-I

Problem Solution Fit

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Team ID	PNT2022TMID26613
Project Name	Gas Leakage Monitoring and Alerting System for Industries

The industrialists who use gases for their manufacturing. The detection of leakage prevents the loss of lives.

- Suffering from many losses due to gas leakage.
- Having no proper system for controlling and monitoring the leakage.
- Facing heavy budget problems in buying and installing a system for monitoring and controlling.

The heavy damages or higher health issues due to the toxic gases urge them to find out a solution as soon as they could possible.

Before: The heavy losses due to the leakages made them feel of guilt due to reduced reputation of their products.

After: Increased the level of confidence and feel secured

CUSTOMER LIMITATIONS <small>EG. BUDGET, DEVICES</small> CL <small>What limits your customer to act when problem occurs? reducing power, budget, no cash in the pocket? Network connection? Mobile devices?</small>	5. AVAILABLE SOLUTIONS <small>PLUSES & MINUSES</small> AS <small>Which solutions are available to the customer when he/she is facing the problem? What had he/she tried in the past? Pluses & minuses?</small>	Explore AS, differentiate
PROBLEM ROOT / CAUSE RC <small>What is the root of every problem from the list? People think that solar panels are best investment right now, because they are too expensive (1,2), and possible changes to the low might influence the return of interest significantly and diminish the benefits (1,2).</small>	7. BEHAVIOR + ITS INTENSITY BE <small>What does your customer do about / around / directly or indirectly related to the problem? eg. directly related: tries different "green energy" calculators in search for the best deal (1,2), usually chooses for 500% green provider (1,2), indirectly related: volunteering work (Greenpeace etc) How often does this related behavior happen?</small>	
9. YOUR SOLUTION SL <small>you are working on existing business - write down existing solution first, fill in a canvas and check how much does it fit reality. you are working on a new business proposition then keep it blank until you fill the canvas and come up with a solution that fits within customer limitations, fixes a problem and matches customer behaviour.</small>	8. CHANNELS of BEHAVIOR CH ONLINE Extract channels from Behavior block OFFLINE Extract channels from Behavior block and use for customer development	Extract online & offline CH of BE

High budget in installing other products make them to move far from modern technologies.

high risk for their life. There is also a cause of some errors due to man power.

- Sometimes sensor doesn't work properly which can cause the major problem.
- Man power could reduce electricity cost and monitor properly, it may cause

Develop an efficient system & an application that can monitor and alert the workers. 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 by

edontheenvironment.

Buzzer to indicate the leakage.GSMmodulehelpsustogetnotificationwhenthere isagasleakage.UsageofsensorstosensegasLeakage.

- Ifthegasleakedisheavilytoxic,thereisachanceofcausinghereditaryhealthissuestoo.
- Todeterminethegascharacteristics and solve the issue,theywilllocatetheleakandidentifythewarning.

Promoting through social media..Monitorthestatusofthesensors .Notification incaseofanygasleakage.

Prevent physical damage tosensor.Through newspaperadvertisementsandcomplaintletters.