

PROJECT DESIGN PHASE-I - SOLUTION

Project Title: **Gas Leakage monitoring & Alerting system for Industries**

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Team ID - **PNT2022TMID07177**

1. CUSTOMER SEGMENT CS <ul style="list-style-type: none">The customers for our project is people Such industries include agriculture, manufacturing, construction, transportation, and communication, among others.	2. CUSTOMER CONSTRAINTS CC <ul style="list-style-type: none">Detect and ventilate the leaked gas.Turn off gas valve automatically.	3. AVAILABLE SOLUTIONS AS <ul style="list-style-type: none">PROS: Monitors the gas level in the present atmosphere.Alert us ,when any gas leakage.Low power consumption.CONS: The challenge of operating electrical equipment as exhaust fan.Needs an UPS for uninterrupted
4. JOBS-TO-BE-DONE / PROBLEMS J&P <ul style="list-style-type: none">Detection of gas leak,Alert surrounding through ALARM,Send SMS through GSM module.	5. PROBLEM ROOT CAUSE RC <ul style="list-style-type: none">The danger happens when gas leaks out. It is dangerous because gas is flammable, which means that if there's a flame or even a spark in the area of a leak, it could cause a fire or explosion.A gas leak can happen if a gas pipe is damaged or a fitting is loose.There is a possibility of avoiding such dangerous problems, by ventilating the leaked gas out of the area, and by alerting the people.Goal of our Project, “ Provide the safe and best product using Internet of Things, to people which detects the gas leakage and alert them , and ensure their Safety ”.	6. BEHAVIOUR BE <ul style="list-style-type: none">Choosing the right sensorReliable componentsCalculating the usage
7. EMOTIONS: BEFORE / AFTER <ul style="list-style-type: none">Prevents gas leakAvoid fire accidentsSafe environment	8. PROPOSED SOLUTION <ul style="list-style-type: none">Gas detectionAlert alarmAlert sms	