

PROJECT DESIGN PHASE-I - SOLUTION

Project Title: Gas Leakage monitoring & Alerting system for Industries

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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 functioning.
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 leak• Avoid fire accidents• Safe environment	8. PROPOSED SOLUTION <ul style="list-style-type: none">• Gas detection• Alert alarm• Alert sms		
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