

PROBLEM STATEMENT

- Gas leakage leads to various accidents resulting into both financial loss as well as human injuries. In human's daily life, environment gives the most significant impact to their health issues. The risk of fires, explosion, suffocation, all are based on their physical properties such flammability, toxicity etc. The number of deaths due to the explosion of gas cylinders has been increasing in recent years. The reason for such explosion is due to sub- standard cylinders, old valves, worn out regulators and lack of awareness using gas cylinders add to risks.
- The leakage of gases only can be detected by human nearby and if there are no human nearby, it cannot be detected. But sometimes it cannot be detected by human that has a low sense of smell. Thus, the system will help to detect the presence of gas leakage.
- Being heavier than air, these gases do not disperse easily. It may lead to suffocation when inhaled and may lead to explosion.
- Furthermore, gas leakage can cause fire that will lead to serious injury or death and it also can destroy human properties. The system will give real-time response to the user.
- In order to minimize or eliminate the hazard of gas leakage there is a need for a system to detect and alert on such incidence leading to the development of this project.

QUESTION	DESCRIPTION
What does the problem affect?	The gas leaked by a cylinder if inhaled can lead to suffocation, as well as cause difficulty in walking or speaking.
What are the boundaries of the problem?	Gas leakage is very harmful for human beings as well as for plants & animals. Also may cause fires.
What is the issue?	Gas leakage
When does the issue occur?	It occurs when a gas line, gas cylinder or any gas-burning appliance springs a leak.
Where is the issue occurring?	The reason for such gas leaks is due to sub-standard cylinders, old valves, worn out regulators and lack of awareness using gas cylinders add to risks.
Why is important that we fix the problem?	Gas leakage can cause fire that will lead to serious injury or death and it also can destroy human properties. In order to minimize or eliminate the hazard of gas leakage there is a need for a system to detect and alert.