



Gas Leakage Monitoring & Alerting System For Industries

TEAM ID: PNT2022TMID21445

- This project helps the industries in monitoring the emission of harmful gases
- In several areas, the gas sensors will be integrated to monitor the gas leakage
- If in any area gas leakage is detected the admins will be notified along with the location
- In the web application, admins can view the sensor parameters.

1

Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕒 5 minutes

PROBLEM STATEMENT

Domestically we use natural gas and it is very useful for burning purposes. If this gas is leaked in our kitchens, offices or factories and not sensed in time, it may lead to a fatal disaster, and may cause human loss. For this purpose, we came forward with an idea of making such an electronic device to sense that leakage and alarm the respective persons to solve that leakage problem and save assets and human lives.



Key rules of brainstorming

To run an smooth and productive session



Stay in topic.



Defer judgment.



Encourage wild ideas.



Listen to others.



If possible, be visual.

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

🕒 10 minutes

ARIKARASHRI K

Monitor the amount of gas in the environment	Response time is in the order of 1 second	Can easily be connected to the "Internet of Things"
Monitor the amount of gas in the environment	Only one gas sensor is required	Reliable technology.

RUTHRAM M

Prevent free hazardous gas	Support gas sensorization	Ensure worker's health
Real-time updates about high-gas	Continuous monitoring	Data analytics for improved decisions

NITHISH KUMAR M

High-end accuracy and repeatability	Low sensor drift	Easy to install and maintain
Low sensor drift	Easy to install and maintain	Easy to install and maintain

RANJITH KUMAR

High-end accuracy and repeatability	Low sensor drift	Easy to install and maintain
Low sensor drift	Easy to install and maintain	Easy to install and maintain

UDHAYAKUMAR U

High-end accuracy and repeatability	Low sensor drift	Easy to install and maintain
Low sensor drift	Easy to install and maintain	Easy to install and maintain

IDEAS

High-end accuracy and repeatability	Low sensor drift	Easy to install and maintain
Low sensor drift	Easy to install and maintain	Easy to install and maintain

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

🕒 20 minutes

CATEGORY 1

Monitor the amount of gas in the environment	Response time is in the order of 1 second	Can easily be connected to the "Internet of Things"
Monitor the amount of gas in the environment	Only one gas sensor is required	Reliable technology.

CATEGORY 2

Prevent free hazardous gas	Support gas sensorization	Ensure worker's health
Real-time updates about high-gas	Continuous monitoring	Data analytics for improved decisions

CATEGORY 3

High-end accuracy and repeatability	Low sensor drift	Easy to install and maintain
Low sensor drift	Easy to install and maintain	Easy to install and maintain

CATEGORY 4

High-end accuracy and repeatability	Low sensor drift	Easy to install and maintain
Low sensor drift	Easy to install and maintain	Easy to install and maintain

4

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕒 20 minutes

