

Ideation Phase

Brainstorm & Idea Prioritization Template

Date	19 September 2022
Team ID	PNT2022TMID06193
Project Name	Gas Leakage monitoring & Alerting system for Industries
Maximum Marks	4 Marks


Brainstorm & Idea Prioritization Template:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

Reference: <https://www.mural.co/templates/empathy-map-canvas>

Step-1: Team Gathering, Collaboration and Select the Problem Statement



Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

🕒 10 minutes to prepare
🕒 1 hour to collaborate
👥 2-8 people recommended

➔

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕒 10 minutes

A Team gathering
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B Set the goal
Think about the problem you'll be focusing on solving in the brainstorming session.

C Learn how to use the facilitation tools
Use the Facilitation Superpowers to run a happy and productive session.

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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

How might we detect and alert gas leakage in early stage?

2

Key rules of brainstorming

To run a smooth and productive session

🗣️ Stay in topic.

💡 Encourage wild ideas.

⏸️ Defer judgment.

👂 Listen to others.

🗣️ Go for volume.

👁️ If possible, be visual.

Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

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

10 minutes

TIP

You can select a sticky note and, at the point of time, use the "Share" icon to view it.

Sathiyaseelan A

Not allowing kids to switch on or off any electrical devices	Regular monitoring of gas tubes	Always keep and transport cylinders in upright position
Turn off the main gas supply	Setting fire alarm in industries	Open the window when we feel gas leakage

Sasikumar R

Automatic closing cylinder valve using stepper motor	The sending of toxic gases such as H ₂ S, Methane, and CO is of great importance in any industry	Gas monitoring not only detect toxic gases but also change air quality
The sensor-enabled solution helps prevent the high risk of gas explosions	LPG vapour is heavier than the air that can be sensed by gas sensor	A gas monitoring solution should use gas analyzers to generate alerts regarding the temperature increase

Siddharthan A

Get real-time alerts about the gaseous presence in the atmosphere	Evacuate everyone immediately if gas leakage is detected	Using gas sensor the data is sensed and sent over GSM module
Proper maintenance of regular nob	Supervise gas concentration levels	If any gas leakage send an alert message to the admin

Lakshmanan S

Data analytics for improved decisions	Measure oxygen level accuracy	Wireless Sensor Network that uses two or more gas sensors to detect leakage in two or more locations
Sensors should be placed near the source of the gas if possible	Flow or pressure change in pipeline leak	Gas detector sound an alarm to operator in area where leakage is occurring

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, 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

TIP

Just as you can select a sticky note and, at the point of time, use the "Share" icon to view it, you can also select a sticky note and, at the point of time, use the "Share" icon to view it.

Regular monitoring of gas tubes	LPG vapour is heavier than the air that can be sensed by gas sensor	Turn off the main gas supply
Get real-time alerts about the gaseous presence in the atmosphere	Measure oxygen level accuracy	Automatic closing cylinder valve using stepper motor
Sensors should be placed near the source of the gas if possible	If any gas leakage send an alert message to the admin	Flow or pressure change in pipeline leak

Step-3: Idea Prioritization

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

