

# Ideation Phase

## Brainstorm & Idea Prioritization Template

Date	9 <sup>th</sup> November 2022
Team ID	PNT2022TMID05386
Project Name	GAS LEAKAGE MONITORING AND 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.**

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

Template




## 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
- 3-5 people recommended


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### 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




#### Team gathering

Define who should participate in the session and send an invite. Share relevant information or previous ideas.



#### Set the goal


Have a clear idea of the problem you'll be focusing on solving in the brainstorming session.



#### Learn how to use the facilitation tools

Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#)



### 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

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 system will be notified along with the location. In the web application admin can view the sensor parameters.

Key rules of brainstorming

To run an smooth and productive session

- Stay in topic
- Encourage wild ideas
- Defer judgement
- Listen to others
- Go for volume
- If possible, be visual

## Step-2: Brainstorm, Idea Listing and Grouping

**3**

**Brainstorm**

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

10 minutes

**10**

You can collect a group note out of the group, should be double, can be done differently?

**Gunalan**

**PARTHIBAN P**

- Use state of existing technology to develop a smart alarm.
- LPG gas detection using the GSM system.
- Gas leakage monitoring and alerting system with MQ-2 sensor.
- Use a gas sensor and a microcontroller which is programmed using Proprietary software.
- Gas leakage with auto ventilation and smart management system.
- Gas leakage monitoring and alert via an android microcontroller.

**Kesavamoorthy**

**NAGARAJAN S**

- GSM sends message to user mobile.
- MQE sensor is sensitive to LPG.
- Ensure safety and compliance at low cost.
- Even detects small amount of gas leakage.
- Warning message displayed on LCD screen.
- LPG with others don't detect leakage easily.

**Harish**

**NAVEEN KUMAR J**

- Detects and turn off the gas supply.
- Detector uses infrared is more sensitive.
- Prevents loss of lives due to early detection.
- Buzzer is used to give alert indication.
- MQ2 sensor has a built-in bypass device which helps to detect leakage even.
- Patent transfer which this invention level of leakage detection.

**Kameswaran**

**MANOJ PANDI P**

- Design of an automatic leak detection and comparing system called Riskless.
- Reduce false alarm which causes unnecessary fear.
- Gas leakage can be regulated.
- Gas leakage detection using four roadways.
- LPG detector which only sound out and alarm when there is leakage.
- Gas leakage detection uses a gas sensor and GSM.

**3**

**Group Ideas**

Take time steering 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.

10 minutes

**10**

Make a comprehensive list of ideas, make a note of ideas to focus, remove duplicates and cluster the important ideas on the top middle part of the wall.

LPG is increasingly used and from the world which you have many countries that use the common standard of LPG.

For the world, a common safety system is developed using an LPG sensor to detect leakage.

This system offers detection of a carbon dioxide gas leak detection system for all safety hazards.

For the world, a high concentration of carbon dioxide gas offers the highest hazard.

People can prevent gas leakage accidents.

The user can prevent the leakage when it can be detected in time.

For the world, a high concentration of carbon dioxide gas offers the highest hazard.

LPG is highly inflammable and with a high concentration of carbon dioxide gas offers the highest hazard.

Transfer leakage data system to a microcontroller.

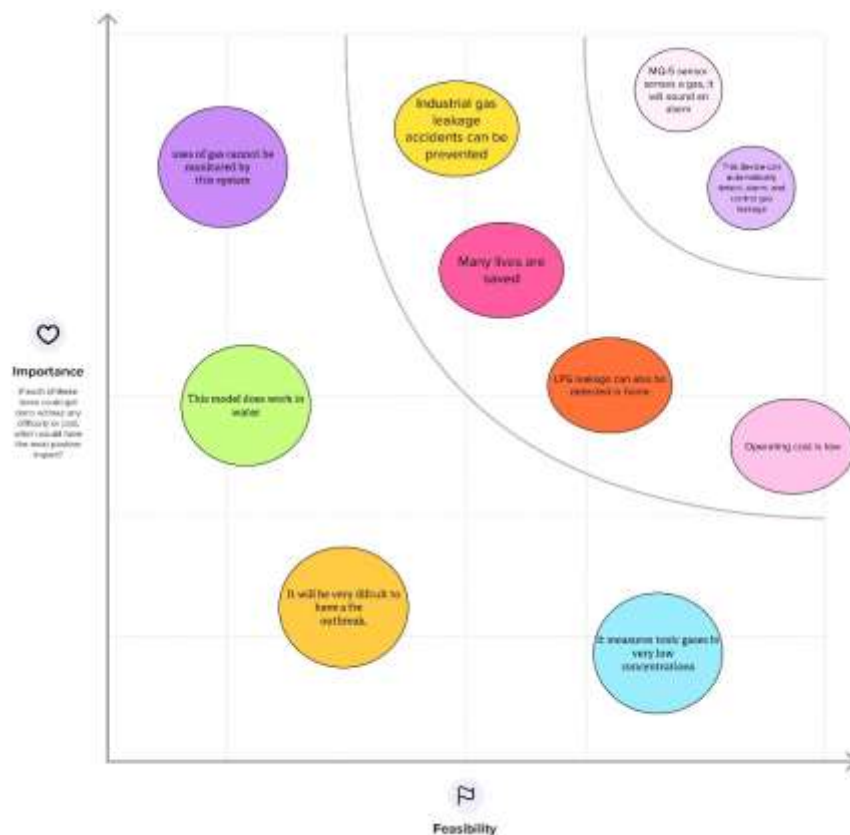
## Step-3: Idea Prioritization

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



5

### After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

#### Quick add-ons

- Share the mural**  
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.
- Export the mural**  
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

#### Keep moving forward

- Strategy blueprint**  
Define the components of a new idea or strategy.  
[Open the template](#)
- Customer experience journey map**  
Understand customer needs, motivations, and obstacles for an experience.  
[Open the template](#)
- Strengths, weaknesses, opportunities & threats**  
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.  
[Open the template](#)

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