

## Ideation Phase

### Brainstorm & Idea Prioritization Template

Date	29 April 2023
Team ID	NM2023TMID04258
Project Name	IOT Based Weather Adaptive Street Lighting System
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 Statemet



## 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



#### Team gathering

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



#### Set the goal

Think about 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

How might we enhance adaptive street lights for efficient and sustainable lighting in all weather conditions while minimizing energy consumption and light pollution?



#### 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

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### Brainstorm

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

🕒 10 minutes

#### TIP

You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

#### Person 3

Use smart sensors to detect the presence of people and vehicles and adjust the brightness of the street lights accordingly.

Implement a wireless communication system that allows the adaptive street light system to be controlled remotely.

Develop a backup power system that can keep the street lights on during power outages.

Collect and analyze data from the sensors and feedback mechanisms to identify areas where the adaptive street light system can be improved.

Use predictive analytics to anticipate when and where street lights will be needed, reducing energy waste and improving efficiency.

Collaborate with city officials to gather feedback from citizens and incorporate their input into the design and operation of the adaptive street light system.

#### Person 2

Use machine learning algorithms to analyze data from the sensors and feedback mechanisms and automatically adjust the brightness of the street lights.

Develop an app that allows city officials to monitor the performance of the adaptive street light system in real-time.

Use data analytics to identify patterns and trends in the usage of the adaptive street light system and optimize its performance.

#### Person 4

Use advanced materials to make the housing and mounting brackets of the adaptive street light system more durable and weather-resistant.

Develop a modular design that allows for easy installation and maintenance of the adaptive street light system.

Integrate renewable energy sources such as solar panels into the design of the adaptive street light system to reduce energy costs and environmental impact.

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### 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

#### TIP

Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

Integrate the adaptive street light system with other smart city technologies such as traffic management systems, emergency response systems, and public transportation systems to improve overall city efficiency and safety.

Develop a plan for ongoing maintenance and upgrades to ensure the long-term sustainability and effectiveness of the adaptive street light system.

Consider the aesthetics of the adaptive street light system and how it can contribute to the overall character and atmosphere of the city.

## Step 3: Idea Prioritization

4

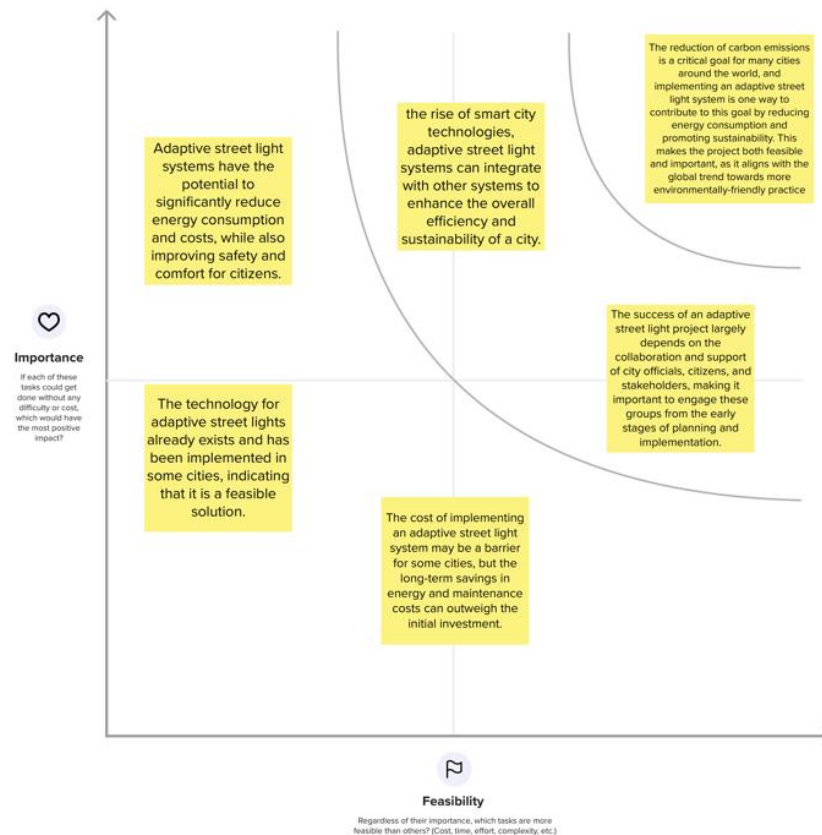
### Prioritize

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

#### TIP

Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the laser pointer holding the **H** key on the keyboard.



→

### 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

- A Share the mural**  
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.
- B 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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