

## Ideation Phase

### Brainstorm & Idea Prioritization

Date	18 October 2022
Team ID	PNT2022TMID54434
Project Name	Emerging Methods for Early Detection of Forest Fires
Maximum Marks	4 Marks

#### 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  
 2-5 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

1

Team gathering

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

2

Set the goal

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

3

Learn how to use the facilitation tools

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

[Open article](#) →

Sona Shiva

Swathy R

Thilagavathy E

Vithiya N

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 develop an unmanned system that detects forest fires in real time with the goal of informing the local fire authorities?



#### Key rules of brainstorming

To run an smooth and productive session

 Stay on topic.

 Encourage wild ideas.

 Defer judgment.

 Listen to others.

 Go for volume.

 If possible, be visual.



#### Need some inspiration?

See a featured version of this template to inspire your work.

[Open example](#) →

## 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 hit the pencil icon (switch to sketch) or the eraser icon (delete) to remove it.

#### Person 1

Using cameras for fire monitoring by using drone-mounted infrared detectors of ignition sources

Detecting the smoke level in the air

Collecting and analyzing data with WSN

Collecting satellite images of forest fires

#### Person 3

Early prediction of forest fires by using existing data

Predicting in which areas the forest fire might spread

Developing a system to alert locals in real-time

Using IoT devices instead of lookout stations

#### Person 2

Using drones above the emergence layer of the forest

Estimating the temperature and CO2 levels in the air

Having an eye hotter regions

Sending a notification to mobile devices and updating the cloud

#### Person 4

Sensors to detect unusual human activities

Developing an cost and power efficient system

Training a model with ML and DL algorithms to detect fires

Analyze animal movement using sensors

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

Collecting data from satellite images

Setting up WSNs to collect and analyze natural parameters (temperature, CO2, humidity, etc)

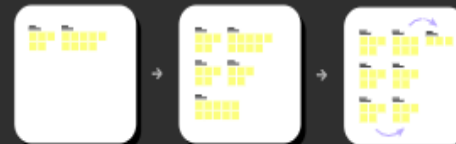
**TIP**  
Add custom labels to sticky notes to make them easier to find, organize, and categorize important ideas on them, before your model.

Training an ML model with appropriate algorithms using the obtained dataset

Testing the accuracy and efficiency of the model

Developing an alert system and notify locals and authorities through mobile app

Update cloud and improve the model to predict forest fires



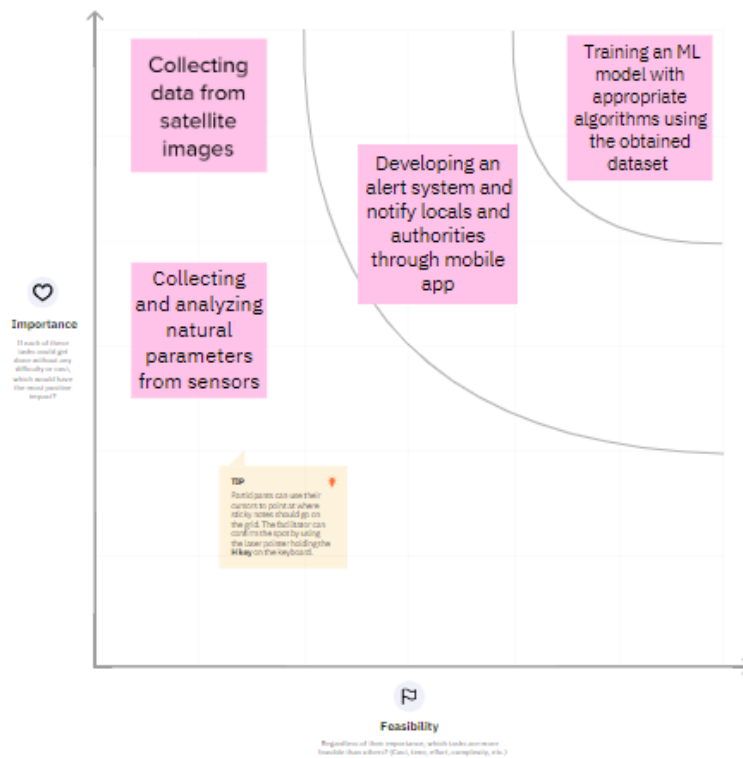
## Step-3: Idea Prioritization



### 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



### 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 outcome of the session.
- Export the mural**  
Export a copy of the mural as a PNG or PDF to attach to email, 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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