

## Ideation Phase

### Brainstorm & Idea Prioritization Template

Date	30 September 2022
Team ID	PNT2022TMID33661
Project Name	Project -IOT Based Smart Crop Protection System for Agriculture
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

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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

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**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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**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

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PROBLEM

How might we [your problem statement]?

**Key rules of brainstorming**

To run a smooth and productive session

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

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

## Step-3: Idea Prioritization

### AUSTIN JEREMIA A

- Protect crops using greenhouse technique
- Can control operations regarding to closing and opening of roof and other operations manually through IOT technology
- Make a node to transmit data from sensor nodes to a coordinator node
- The cost and energy consumption of this system is less

### KISHORE KUMAR S

- Monitor agricultural land conditions, to control water irrigation
- WSN can be used to detect physical parameters like heat, light, pressure
- The greenhouse which can monitor real time sensors
- Control the switches and the data is analyzed dynamically and efficiently using splunk

### AATHISHWARAN L

- Managing sensors networks and technologies based on web
- Use less sensors to make the system smaller
- Simplify Zigbee networks, improve area of greenhouse will increase system complexity
- Sensors configured to microcontroller to analyzes the parameters like weather ,humidity and temperature.

### GOKUL G

- To predict and simulate the generated energy annually at different angles
- It is done by Polysun program
- The BIPV panel is installed at a tilt angle of 30 degree
- Installation of semi-transparent photovoltaic on greenhouse depends on temperature parameter

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### 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

