


# Ideation Phase

## Brainstorm & Idea Prioritization Template

Date	19 September 2022
Team ID	PNT2022TMID35659
Project Name	SmartFarmer - IoT Enabled Smart Farming Application
Maximum Marks	4 Marks

### 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

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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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**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

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**PROBLEM**

Agriculture has become a tedious task due to climate change, natural calamities, water scarcity and many other reasons. These things make agriculture a big challenge and force the farmers to quit.

**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

**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 (switch to sketch) icon to start drawing!

**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

**Danush Gupta V K**

- Moisture sensor to detect when crops need water
- App to monitor all the sensor values from anywhere around the world
- Send alert messages to farmer whenever attention required
- Produce high pitch sounds when animals are detected to make them go away

**Sham Ganesh M**

- Temperature sensor to detect when to cool the surroundings to make crop yield better
- Motion detection sensor to detect animal and theft activities
- Solar panels to power the IoT system
- Automatically stop the irrigation when rain comes to avoid water wastage

**Premal Raj Vellaisamy**

- pH sensor to detect the quality of the soil
- Water volume sensor to ensure over-irrigation is not done
- Set manual threshold values for each sensor
- Farmer able to start the motors and other devices using an app

**Cyril Tony A**

- Humidity sensor to detect when irrigation is required
- Rain intensity sensor to detect rain and stop irrigation
- Set manual threshold values for individual crop types
- Automatically detect repairs in motor pumps and alert technician

**Irrigation Related**

- Moisture sensor to detect when crops need water
- Rain intensity sensor to detect rain and stop irrigation
- Humidity sensor to detect when irrigation is required
- Automatically stop the irrigation when rain comes to avoid water wastage
- Water volume sensor to ensure over-irrigation is not done

**App Related**

- App to monitor all the sensor values from anywhere around the world
- Send alert messages to farmer whenever attention required
- Set manual threshold values for each sensor
- Farmer able to start the motors and other devices using an app
- Set manual threshold values for individual crop types

**Trespassing Related**

- Produce high pitch sounds when animals are detected to make them go away
- Motion detection sensor to detect animal and theft activities

**Other Sensors Related**

- Automatically detect repairs in motor pumps and alert technician
- Solar panels to power the IoT system
- pH sensor to detect the quality of the soil
- Temperature sensor to detect when to cool the surroundings to make crop yield better

## Step-3: Idea Prioritization

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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

