


Ideation Phase

Brainstorm & Idea Prioritization Template

Date	12 September 2022
Team ID	PNT2022TMID18045
Project Name	Project - IoT Based Smart Crop Protection System for Agriculture
Maximum Marks	4 Marks




Brainstorm & Idea Prioritization:


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

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







PROBLEM

How might we [your problem statement]?



Key rules of brainstorming

To run an 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

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!

Mariappan K

Use IoT devices to collect data

Use weather report to avoid drought and water stagnant

Use another motor and sensor to automatically move water from stagnant place.

Use flame sensor to detect field fire

Gopi Krishnan V

By using cloud service to store data

Use GSM module to alert farmers

Provide visual support(field view)

Automatic water sprinklers to reduce person overhead

KaniRaj S

Designing an user friendly interface.

Predicting crop disease using machine/deep learning

Spraying pesticides to avoid insects

Use node-red to create web and mobile application

Raja Kumaran G

Conduct regular quality and quantitative assessment

Display all details in single page clearly and in understandable manner

Using machine learning algorithm to detect weeds in crop field

Use RS485 to detect accurate soil moisture

Saravanan B

Use decision making theory to automate task.

Setup in water supply can improve productivity

Show recommendation based on crop growth to maximize production.

Detected animal photos can viewed in web/mobile application.

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

Use flame
sensor to
detect field
fire

Detected
animal photos
can viewed in
web/mobile
application.

Conduct
regular
quality and
quantitative
assessment

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

Using machine
learning
algorithm to
detect weeds
in crop field

Designing
an user
friendly
interface.

Use GSM
module to
alert farmers

By using
cloud
service to
store data

Use weather
report to avoid
drought and
water
stagnant

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

