

Ideation Phase

Brainstorm & Idea Prioritization Template










Date	19 September 2022
Team ID	PNT2022TMID31899
Project Name	IOT BASED 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.

Step-1: Team Gathering, Collaboration and Select the Problem Statement

<div>Template</div> <div></div> <div><h3>Brainstorm & idea prioritization</h3></div> <div><p>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.</p></div> <div><div> 10 minutes to prepare</div><div> 1 hour to collaborate</div><div> 2-8 people recommended</div></div> <div>Share template feedback</div>	<div></div> <div>Before you collaborate</div> <div><p>A little bit of preparation goes a long way with this session. Here's what you need to do to get going.</p></div> <div> 10 minutes</div> <div><div><div>A</div>Team gathering<p>Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.</p></div><div><div>B</div>Set the goal<p>Think about the problem you'll be focusing on solving in the brainstorming session.</p></div><div><div>C</div>Learn how to use the facilitation tools<p>Use the Facilitation Supercpowers to run a happy and productive session.</p></div></div> <div>Open article </div>	<div></div> <div>Define your problem statement</div> <div><p>The main purpose of the project is to protect the crops from animals. Also it monitors the temperature and soil moisture level.</p></div> <div> 5 minutes</div> <div><h3>PROBLEMS</h3></div> <div><ol style="list-style-type: none">1. Improper maintenance of crops against various environmental factors such as temperature climate, topography and soil quality which results in crop destruction.2. Requires protecting crops from Wild animals attacks, birds and pests.3. Lack of Knowledge among farmers in usage of fertilizers and hence crops are affected due to high ammonia, urea, potassium and high PH level fertilizers.</div>
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Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

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

10 minutes

S.YESUDAS

Advantage of IoT based irrigation system is that it can be used to monitor the water level and moisture level of the soil and provide the water to the plants as per the requirement.

M.GOKULAVASAN

Advantage of IoT based irrigation system is that it can be used to monitor the water level and moisture level of the soil and provide the water to the plants as per the requirement.

B.THARUNKUMAR

Advantage of IoT based irrigation system is that it can be used to monitor the water level and moisture level of the soil and provide the water to the plants as per the requirement.

S.PRAKASHKUMAR

Advantage of IoT based irrigation system is that it can be used to monitor the water level and moisture level of the soil and provide the water to the plants as per the requirement.

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

BASED ON IRRIGATION

Auto irrigation by sensing the water level and moisture level by sensor and monitoring by IOT.

Controlling the irrigation activity by IOT and monitoring it.

Irrigation management uses sensor to detect when and how much water is needed by individual plants. This saves water and also reduces weeds and runoff.

Monitoring the quality of the field with respect to various climatic conditions using IOT technology for further action.

BASED ON ANIMAL,BIRDS AND PESTS ATTACKS

Constant supervision of fields against attacks of crops by animals birds and pests using Smart protection system.

Sensor detect the presence of pests and their damage to crops as well as the presence of pests in the field. The sensor can be used to detect the presence of pests in the field and provide the necessary action.

Preparing an user friendly device to monitor the crop field and provide protection from attacks of animals, birds and pests.

BASED ON MONITORING IN IOT

Smart soil management can be done using moisture sensor with raspberry pi which maintains the crops yield.

To alert the farmers about the usage of pesticides, fertilizers, Ammonia which is consumed by the crops while using ferti-lizer.

To monitor the field using IOT technology regardlessly from their remote location.

If a flame is ignited in crop field then smart sensors are used to spray water automatically and it can be monitored through IOT.

Designing an smart device using wireless sensor networks in crop field to upload all data in cloud for future analysis.

When flood occur in the field water level is monitored using sensors and immediate action is taken immediately and it is controlled using IOT.

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

