

Ideation Phase

Brainstorm & Idea Prioritization

Date	16 October 2022
Team ID	PNT2022TMID15968
Project Name	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 the Problem Statement

TEAM GATHERING:

Our team gathered to improve qualities of the iot smart crop protection for Agriculture with different ideas and thoughts.

Collaboration:

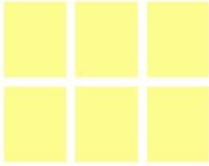
We have collaborated to success our team goal to protect the agriculture crops.

The Problem Statement:

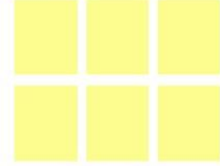
The significant problem which raises the requirement of this project was that the traditional agriculture method consumes time, manual labor work and is also not cost efficient and protect from any other disturbance like animals, weather.

Step-2: Brainstorm, Idea Listing and Grouping

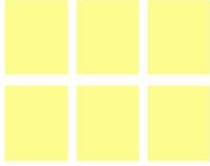
We can use motion sensors to detect animals movement & determine, so they run away



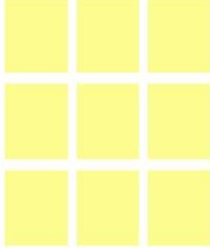
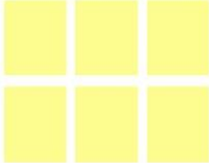
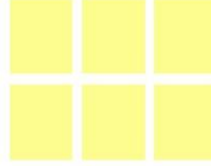
Smoke sensor can be used to detect fire, so that we can turn on water & sprinkle water



Notifications can be sent to farmer in case any of the scenarios



Based on notification through it, farmer can take immediate action



Step-3: Idea Prioritization

motion sensor can be used to detect wild animals approaching near the field and smoke sensor can be used to detect the fire.

In such a case the sensor can signal the microcontroller to take action. The microcontroller now sounds an alarm to woo the animals away from the field as well as sends SMS to the farmer and makes call, so that farmer may know about the issue and come to the spot in case the animals don't turn away by the alarm

If there is a smoke, it can immediately turns ON the motor. This can ensure complete safety of crops from animals and from fire thus protecting the farmer's loss.


Importance
If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

