**Project Title:** IoT Based Smart Crop Protection System for Agriculture

**Project Design Phase-I** - **Solution Fit Template Team ID:** PNT2022TMID26521

**Focus on J&P, tap into BE, understand RC**

**Explore AS, differentiate**

**Deﬁne CS, ﬁt into CC**

* A soil moisture sensor measures the current soil moisture, produces better crops.
* Pesticides often known as chemical crop protection agents, aid in the control of insects ,illnesses, fungi and other unwanted pests.

**AS**

**5. AVAILABLE SOLUTIONS**

* A suitable irrigation system
* There are sensors
* Given information in a few of seconds .

**CC**

**6. CUSTOMER CONSTRAINTS**

**CS**

**1. CUSTOMER SEGMENT(S)**

One of the main hzards to diminishing crop yield is crop damage brought on by animal and bird attack.

**Explore AS, differentiate**

**Define CS, fit into CC**

**BE**

**7. BEHAVIOUR**

* Tensioeters gause soil moisture tension in an indirect manner.
* Electerical fences are designed to shock animals that come into touch , keeping them to attempting to cross the fence.

**RC**

**9. PROBLEM ROOT CAUSE**

* The issue of the labour scarcity is addressed, and the cost budget is reduced.
* The device continuously and automatically checks the humidity level in plants and waters them even when there are no physical and personal present.

**J&P**

**2. JOBS-TO-BE-DONE / PROBLEMS**

* Monitering the animal entry.
* Observing the entry of animal .
* Reduces the agriculture losses is neccessar.

**Focus on J&P, tap into BE, understand RC**

**Focus on J&P, tap into BE, understand RC**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Identify strong TR & EM** | **3. TRIGGERS TR**   1. Results from soil moisture sensors are immediately available. 2. Increasing crop yield while reducing the fertiliser expendictures. | **10. YOUR SOLUTION SL**   * Crop Security using IOT platform from attacks by birds and other animals. * IOT based crop protection system against birds and wild animals attacks. | 1. **CHANNELS of BEHAVIOUR CH**     1. **ONLINE**   **Farmers used to receive data from data analytics frequently. Using IOT, Data storage is also secure.**   * 1. **OFFLINE**   **The suggested system has several sensors that can mesure and ensure crop quality based on elements like temperature , soil moiture and humidity.** |  |
| **4. EMOTIONS: BEFORE / AFTER EM**  BEFORE:-  Anixiety, Diminished human capacity, despair , and longer time commitment.  AFTER:-  Reducing time spent and raising profitability. |