

## Define CS, fit into CC

Focus on J&amp;P, tap into BE, understand RC

## 3. TRIGGERS

## 1. CUSTOMER SEGMENT(S)

Who is your customer?

The Customers of this product are the farmers who cultivate crops. Our aim is to assist, aid and help them to monitor the field parameters. This product saves the agriculture from extinction.

CS

## 6. CUSTOMER CONSTRAINTS

What constraints prevent your customers from taking action or limit their choices of solutions?

Deployment of huge number of sensors is difficult. It requires an unlimited or continuous internet connection to be successful.

CS

## 5. AVAILABLE SOLUTIONS

Which solutions are available to the customers when they face the problem or need to get the job done?

The irrigation process is automated using IoT. Weather data and field parameters were obtained and processed to automate the process of irrigation. The drawbacks are high cost of installation, efficient only for short distance, difficulty in storing the data.

AS

## Explore AS, differentiate

Focus on J&amp;P, tap into BE, understand RC

## 3. TRIGGERS

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

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

The objective of this product is to obtain the different field parameters using sensor and process it using a central processing system. Cloud is used to store and transmit the data by using IoT. Weather APIs are employed to assist the farmer in making decision through a mobile application.

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## 9. PROBLEM ROOT CAUSE

What is the real reason that this problem exists? What is the back story behind the need to do this job?

The frequent change or unpredictable weather and climate, made it difficult for the farmers to do agriculture. These factors play a major role in making decision whether to water the plant or not. The monitoring of the field is hard when the farmer is out of station, thus leading to crop damage.

RC

## 7. BEHAVIOUR

What does your customer do to address the problem and get the job done?

Using proper drain system to overcome the effects of excess water due to heavy rain. Using hybrid varieties of crop that are resistant to pests.

BE

TR

## 10. YOUR SOLUTION

Our product collects the data from different types of sensors and it sends the value to the main server. It also collects the weather data from the weather API. The ultimate decision, whether to water the crop or not is taken by the farmer using mobile application.

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## 8. CHANNELS of BEHAVIOUR

## 8.1 ONLINE

Providing online assistance to the farmer, in providing knowledge regarding the pH and moisture level of the soil. Online assistance to be provided to the user.

## 8.2 OFFLINE

Awareness camps to be organized to teach the importance and advantages of the automation and IoT in the development of agriculture.

CH

P C C T

**4. EMOTIONS: BEFORE / AFTER****EM**

How do customers feel when they face a problem or a job and afterwards?

**BEFORE:**

- Lack of knowledge in weather forecasting
- Random decisions
- Low yield
- Low income

**AFTER:**

- Data from reliable resource
- Correct decision
- High yield
- High income