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|-------------------------|--|--|---|---------------------------|
| Define CS, fit into CC  | <b>1. CUSTOMER SEGMENT(S)</b> <b>CS</b><br><p>Approximately 60% of the Indian population works in the agriculture industry. A major population among these are small-scale farmers who are majorly affected by improper watering of crops leading to losses. Our system addresses this problem of the farmers making them our potential customers.</p> | <b>6. CUSTOMER CONSTRAINTS</b> <b>CC</b><br><p>Crop yields will fall dramatically owing to excessive watering that affects the farmers' income. They find it difficult to adopt and learn new technologies. More commonly pressures on financial resources for some farmers slow the adoption of some technologies.</p>  | <b>5. AVAILABLE SOLUTIONS</b> <b>AS</b><br><p>The existing method uses these sensors that trigger the motor pump to turn on automatically and it will continue to sprinkle the water until the moisture goes upto 55% after that the pump will be turned off. The sensor data will be sent to cloud so that it can be monitored from anywhere .</p> | Explore AS, differentiate |
|                         | <b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <b>J&amp;P</b><br><ol style="list-style-type: none"> <li>1. Economical Insecurity</li> <li>2. Climatic changes and deteriorated quality of soil.</li> </ol>   | <b>9. PROBLEM ROOT CAUSE</b> <b>RC</b><br><p>Climatic factors</p> <ol style="list-style-type: none"> <li>1. Drought</li> <li>2. Flooding</li> <li>3. Poor rainfall</li> <li>4. Too much rain</li> <li>5. High temperature</li> </ol>   | <b>7. BEHAVIOUR</b> <b>BE</b><br><ol style="list-style-type: none"> <li>1. Remove debris and sediments.</li> <li>2. Repair eroded soil.</li> <li>3. Crop management practices like tillage, fertility recommendations, cover crop termination, inoculation, seeding practices, and weed control</li> </ol>  |                           |
| Identify strong TR & EM | <b>3. TRIGGERS</b> <b>TR</b><br><p>Studies show that up to 50% of water usage for landscape irrigation can be saved with cloud-based Smart Irrigation systems. This will help the farmers to save water resources dramatically and have a better control over it.</p>  | <b>10. YOUR SOLUTION</b> <b>SL</b><br><p>Our product will assist farmers by obtaining real-time data from the farmland to take necessary steps during unfavorable conditions. Our proposed product uses NodeMCU, DHT11 Temperature and Humidity Sensor, Soil Moisture Sensor, Relay Coil, AC Motor Pump, and Buzzer. Farmers can monitor all the sensor parameters by using a web / mobile application/dashboard even if the farmer is not near his field. They can make the decision whether to water the crop or postpone it by monitoring the sensor parameters and controlling the motor pumps from the mobile application itself.</p> | <b>8. CHANNELS of BEHAVIOUR</b> <b>CH</b><br><p>The customer can buy our end product in offline stores such as Hardware and the Electronics Stores and also in several online shopping platforms.</p>   | Identify strong TR & EM   |
|                         | <b>4. EMOTIONS: BEFORE / AFTER</b> <b>EM</b><br><p>Both farming as an occupation and farmers are placed at a low level</p>   |  |   |                           |

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

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