


# PROPOSED SOLUTION

**Project title:** SmartFarmer - IoT Enabled Smart Farming Application

Problem Statement (Problem to be solved)	To facilitate the farmer's work easy, by way of helping them to make the agriculture activities much more smarter.
Idea / Solution description	<ul style="list-style-type: none"><li>♦ IoT-based agriculture system helps the farmer in monitoring different parameters of his field like soil moisture, temperature, and humidity using some sensors.</li><li>♦ Farmers can monitor all the sensor parameters by using a mobile application even if the farmer is not near his field. Watering the crop is one of the important tasks for the farmers.</li><li>♦ 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.</li><li>♦ Similarly, they can also sprinkle the liquid type insecticides by rain pipe system and weedicides by the piping system.</li><li>♦ Also, they will be able to know the plant's lifetime by using the some of the parameters of his field. So that it will help him to make further decisions as per need.</li><li>♦ Along with it all, he can also be able to control the Animal Repeller system which is kept in the field.</li></ul>
Novelty / Uniqueness	<ul style="list-style-type: none"><li>♦ By getting to observe all the parameters of the field with the help of the mobile application, farmer can easily control the motors and irrigate the field</li><li>♦ Rain pipe system for sprinkling liquid type insecticides</li><li>♦ Piping system for spraying weedicides across the field</li><li>♦ Predicting plant's lifetime to make further decisions</li><li>♦ Animal Repeller system to protect the field</li></ul>
Social Impact / Customer Satisfaction	<ul style="list-style-type: none"><li>♦ This solution helps a lot of farmers as well as the persons who are all taking care of the plantations</li></ul>

	<ul style="list-style-type: none"><li>◆ It will become a needed one for the one who wants to save time, manpower and do the work in a smarter way</li></ul>																				
Business Model (Financial Benefit) – (for 5 plants)	<ul style="list-style-type: none"><li>◆ We can get a better profit on this. Since, we are providing an easiest way for the farmers to reduce their work holds</li></ul> <div><table><caption>Cost Data over 4 Years</caption><thead><tr><th>Year</th><th>Production cost</th><th>Selling cost</th><th>Linear (Selling cost)</th></tr></thead><tbody><tr><td>Year 1</td><td>2000</td><td>3000</td><td>3000</td></tr><tr><td>Year 2</td><td>2500</td><td>3500</td><td>3500</td></tr><tr><td>Year 3</td><td>3000</td><td>4000</td><td>4000</td></tr><tr><td>Year 4</td><td>3500</td><td>4500</td><td>4500</td></tr></tbody></table></div>	Year	Production cost	Selling cost	Linear (Selling cost)	Year 1	2000	3000	3000	Year 2	2500	3500	3500	Year 3	3000	4000	4000	Year 4	3500	4500	4500
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Scalability of Solution	<ul style="list-style-type: none"><li>◆ This solution is scalable, but it is based upon the user that how frequently they are using this</li></ul>																				