

<b>Project Name:</b> lot Based Smart Crop Protection System For Agriculture <b>Date of Submission:</b> 16/08/22		<b>Team Members</b> 1. Neha V- Lead 2. Bharthi S 3. Pavithran K B 4. Praburam K V 5. Sangeetha S
<b>Problem Statement:</b> A vast majority of the people are invariably affected by the production of crops. Farmers, for example, rely on them for their survival. The consumers, on the other hand, depend on the crops as it provides them with a multitude of utilities. It therefore, becomes essential to protect and maintain these crops. The project aims at improving the farmers’ situation by preventing them from incurring losses due to the damage of crops. Crop failure also deteriorates the quality of the yield thereby decreasing the quality of living.		
<b>Idea 1:</b> Crop protection from animals using IR motion detectors  The farmland is surrounded by fences and each fence is equipped with multiple IR motion detectors in various heights. Location of each motion detector is surveyed and stored in the database. Cameras are placed in suitable locations so that we get a complete view over the farmland. When an animal or the intruder enters the field. The IR detectors which are placed in various heights are used to detect the type of the animal which has entered the field and the size of the animal. Alarms can be used to alert when large animals enter the field. And the camera is activated when the IR sensor detects motion.	<b>Idea 2:</b> A user interface system for farmers to analyze the data.  The data to the system are sensor data from Humidity sensor, Temperature sensor, PIR Sensor and they are processed using a microcontroller and stored in a database. This database also gives an overview on crop yields, profit and losses for the farmer, what crop has been sowed and Expenses. This database can be used in the future for analyzing a pattern for best yields, to minimize the expenses and help the farmer take decisions financially.	<b>Idea 3:</b> Crop protection from environmental factors such as UV rays, temperature, humidity, moisture content in soil.  Using color sensors to detect NPK values of the soil and determining its fertility this data can be used to determine what type of fertilizers to be used. These factors can play a major role in crop protection and crop yield. So having control over these will help to improve the yield. Sensors for UV concentration, moisture content ,temperature are measured and water sprinklers are used to control the parameters accordingly.

The picture is sent to the farmer.		
------------------------------------	--	--