

Project Design Phase-I Problem – Solution Fit Template

Date	08 October 2022
Team ID	PNT2022TMID30241
Project Name	IOT-Based smart crop protection system for Agriculture
Maximum Marks	2 Marks

Template:

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) CS Farmers Land owners	6. CUSTOMER CONSTRAINTS CC Customers should be aware of IoT device that will trigger the GSM module when movement is detected which causes the camera to capture and should have a registered mobile number to deliver the alert message and pictures.	5. AVAILABLE SOLUTIONS AS The available solution is crop protection by fencing around the crops and using scarecrows in the fields.	Explore AS, differentiate
	2. JOBS-TO-BE-DONE / J&P To protect crops from birds and animals.	9. PROBLEM ROOT CAUSE RC The root cause of our project is crop damage and resultant loss by using expensive systems for crop protection from birds and animals.	7. BEHAVIOUR BE The struggle of our customer is that they fail to protect the crops for 24/7 due to the constraints in monitoring & protecting the fields.	
Focus on J&P, tap into BE, understand RC	3. TRIGGERS TR Heavy crop damage in spite of crop protection by manpower and scarecrows.	10. YOUR SOLUTION SL Our project's main aim is to make all in all crop protection system that will always produce continuous noise and once the movement is detected the buzzer will be turned on and the camera will be triggered and capture the image and send it to the registered mobile number to alert farmers or landowners.	8. CHANNELS of BEHAVIOUR CH 8.1 ONLINE The message format should be installed in the GSM module to send messages to the owner and the number of images to be captured has to be fixed.	Focus on J&P, tap into BE, understand RC
	4. EMOTIONS: BEFORE / AFTER EM Customers will be happy that crops are protected from birds and animals vandalization by this system.		8.1 OFFLINE The duration of the buzzer sound which will be produced when the movement detected should be prerecorded.	