

Project Design Phase-I

Problem Solution Fit

Date	27 OCTOBER 2022
Team ID	PNT2022TMID51132
Project Name	IOT based smart crop protection system for agriculture
Maximum Marks	4 Marks

Define CS, fit into CL	1. CUSTOMER SEGMENT(S) CS <ul style="list-style-type: none"> ➤ Commercial farmers ➤ Crop importers 	6. CUSTOMER LIMITATIONS CL <small>EG. BUDGET, DEVICES</small> <ul style="list-style-type: none"> ✓ Limited land ✓ Security concerns ✓ Soil related problem ✓ High adoption cost 	5. AVAILABLE SOLUTIONS AS <small>PLUSES & MINUSES</small> <ul style="list-style-type: none"> ✓ Proper fencing around the land ✓ Creating web application which make easy to farm the crop 	Explore AS, differentiate
	2. PROBLEMS / PAINS PR <small>+ ITS FREQUENCY</small> <ul style="list-style-type: none"> ✓ High cost ✓ Climate changes ✓ Difficult to monitor 	9. PROBLEM ROOT / CAUSE RC <ul style="list-style-type: none"> ✓ Livestock will graze the crop, if there is an lack of animal or bird feed ✓ Less productivity will affect their profit 	7. BEHAVIOR BE <small>+ ITS INTENSITY</small> <ul style="list-style-type: none"> ✓ Adapting to current technology for crop protection ✓ Basic practices of crop protection 	
Identify strong TR & EM	3. TRIGGERS TO ACT TR <ul style="list-style-type: none"> ✓ Agricultural practices ✓ From this crop protection method farmers can easily make efficient production in yield 	10. YOUR SOLUTION SL <p><i>"IoT based Smart crop protection system for agriculture"</i></p> <p>This system also helps farmers to monitor the soil moisture levels in the field and also the temperature and humidity values near the field. The motors and sprinklers in the field can be controlled using the mobile application.</p>	8. CHANNELS of BEHAVIOR CH <p>ONLINE</p> <p>ONLINE: The Data send through application for the farmers to know about the farms.</p> <p>OFFLINE</p> <p>OFFLINE: The control action is taken by the farmers to monitor the farms. Harvesting and storage</p>	Extract online & offline CH of BE
	4. EMOTIONS EM <small>BEFORE / AFTER</small> <p>BEFORE: Frustration due to crop damage and low yield Mental illness</p> <p>AFTER: It will easier to make more yield</p>			