

# PROJECT DESIGN PHASE-1

## PROBLEM SOLUTION FIT

DATE	21 OCTOBER 2022
TEAM ID	PNT2022MID10536
PROJECT NAME	IOT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE

Project Design Phase-I - Problem Solution Fit

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<p><b><u>1.CUSTOMER SEGMENTS</u></b></p> <p>Farmer's! Who's not hear his field</p>	<p><b><u>6.CUSTOMER LIMITATIONS</u></b></p> <p>1.High adoption costs,security concerns. 2.Not aware of the implementation of IOT in agriculture</p>	<p><b><u>5.AVAILABLE SOLUTIONS</u></b></p> <p>Electrical fencing alternatively we are used object detection using AI. <b>MERITS:</b> Alarm system is help to protect our field securely. <b>DEMERITS:</b> Animal damage to the field might occasionally cause problems</p>
<p><b><u>2. PROBLEMS</u></b></p> <p>i. It's difficult to monitor and control. ii. if the application doesn't work properly.</p>	<p><b><u>9.PROBLEM ROOT CAUSE</u></b></p> <p>1)If the temperature ,ph level,humidity&amp;light intensity makes the serious cause for the environment 2)Farmer affected by less productivity which will affect in their financial growth.</p>	<p><b><u>7.BEHAVIOUR</u></b></p> <p><b>Direct related:</b> Tries to find a solution for a respective problem to prevent this problem. <b>Indirect related:</b> Located in rural where internet connectivity might not to be a strong enough to facilitate fast and the transmission speeds.</p>
<p><b><u>3. TRIGGERS</u></b></p> <p>Create opportunities to lift people out of poverty in developing nations(over 60%)</p> <p><b><u>4.EMOTIONS: BEFORE / AFTER</u></b></p> <p><b>BEFORE:</b> Finances ,Heavy work over load and conflict in relationship. <b>AFTER :</b> it will easier to make more yield.</p>	<p><b><u>10.YOUR SOLUTION</u></b></p> <p>IOT Based Crop Protection System against Birds and Wild Animal. This is a microcontroller based system using PIC family microcontroller. This is a system uses a motion sensor to the detect wild animals approaching near the field. be commonly found in web application( Node Red) using Arduino.</p>	<p><b><u>8.CHANNELS OF BEHAVIOUR</u></b></p> <p><b>ONLINE:</b> The data send through application for the farmers to know about the farms. <b>OFFLINE:</b> The control action is taken by the farmers to monitor the farms.</p>

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