

Project Design Phase-I

Proposed Solution Fit

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| Project Name | IOT Based Smart Crop Protection System for Agriculture |
| Team ID | PNT2022TMID03994 |
| Marks | 2 Marks |
| Date | 2 November 2022 |

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| Define CS, fit into CL | <div>1. CUSTOMER SEGMENT(S)<div>CS</div></div> <div>Farmers who are trying to protect their crops are the customers.</div> | <div>6. CUSTOMER LIMITATIONS<div>EG. BUDGET, DEVICES</div><div>CL</div></div> <div><div><div>Adoption cost is high for security concerns.</div><div>Customer is not aware of the lot in agriculture.</div></div></div> | <div>5. AVAILABLE SOLUTIONS<div>PROS & CONS</div><div>AS</div></div> <div><div><div>CCTV camera installed to monitor the crops</div><div>Web application can be used for maintenance of crops</div></div></div> | Explore AS, differentiate |
| | <div>2. PROBLEMS / PAINS + ITS FREQUENCY<div>PR</div></div> <div><div><div>Irrigation is not done properly</div><div>Crops are not maintained properly.</div><div>Difficult to monitor and control</div><div>Lack of protection of crops from</div><div>Wild animals, birds, pests</div><div>Lack of knowledge about the application.</div></div></div> | <div>9. PROBLEM ROOT / CAUSE<div>RC</div></div> <div><div><div>Due to temperature, climate, soil quality which causes destruction in crops.</div><div>Due to less productivity, farmers are affected with their profit.</div><div>PH value, light intensity creates serious cause of environment</div></div></div> | <div>7. BEHAVIOR + ITS INTENSITY<div>BE</div></div> <div><div><div>Takes more time in cropland</div><div>For an existing solution, searching for an alternate solution.</div><div>Placed in rural area where network is not proper for fast transmission speed.</div></div></div> | Focus on PR, tap into BE, understand RC |
| Identify strong TR & EM | <div>3. TRIGGERS TO ACT<div>TR</div></div> <div><div><div>Educating farmers about the latest technologies.</div><div>Opportunities to be created to uplift people from poverty.</div></div></div> | <div>10. YOUR SOLUTION<div>SL</div></div> <div><div><div>“IOT based smart crop protection system for agriculture”</div><div>Farmers grow more food on less land by protection from weeds and productivity is increased per hectare.</div></div></div> | <div>8. CHANNELS of BEHAVIOR<div>CH</div></div> <div><div>ONLINE</div><div><div>Data is send to farmers through application to know about farms.</div></div></div> | Extract online & offline CH of BE |
| | <div>4. EMOTIONS<div>BEFORE / AFTER</div><div>EM</div></div> <div><div><div>Frustrations created due to insufficient production of crops, heavy workload.</div><div>Easier to follow the latest technology and reduce costs.</div></div></div> | | <div><div>OFFLINE</div><div><div>Giving awareness on application of the device among farmers.</div></div></div> | |