Project Title:Iot based Smart Crop Protection System for Agriculture Team ID: PNT2022TMlD23850

|  |  |
| --- | --- |
| 1. CUSTOMER SEGMENT(S)  Who is your customer? | 6. CUSTOMER CONSTRAINTS |
| i.e. working parents of 0-5 y.o. kids | What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices. |
| FARMER | Crops in farms are many times ravaged by local animals like cows,buffaloes,goats,birds,etc.. this leads to huge losses for the farmers. |
| 2. JOBS-TO-BE-DONE / PROBLEMS | 9. PROBLEM ROOT CAUSE RC |
| Which jobs-to-be-done (or problems) do you address for | What is the real reason that this problem exists? What is the |
| your customers? There could be more than one; explore | back story behind the need to do this job? |
| different sides. | i.e. customers have to do it because of the change in regulations. |
| TO PROTECT CROPS FROM | The reason behind this problem is damages |
| ANIMALS AS WELL AS FROM | caused by wild animals and human beings. Cows may graze the crops in the field that |
| HUMAN BEINGS | will cause losses to the farmer. |

# Project Design Phase-I - Solution Fit Template

## 5. AVAILABLE SOLUTIONS

Which solutions are available to the customers when they face the problem

or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

There are many solutions available, but in our project we introduced Sd card module that will store sounds which give fear to animals.

7. BEHAVIOUR BE What does your customer do to address the problem and get

i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

All the problems should be noted by the famers.Then should aware of wild animals and human beings.

## 3. TRIGGERS

What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news

Here we use solar panels to charge battery.

## 4. EMOTIONS: BEFORE / AFTER

How do customers feel when they face a problem or a job and afterwards?

i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

When they are facing the problem, they feel sad because the crops are destroyed. After solving the problem, they feel very happy.

## 10. YOUR SOLUTION SL

If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.

If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

The Smart protection system defines that this project help to farmer for the protection of a farm. We have designed this project for the only secure from animals but we this project have the provision to secure from the human begins also. This can achieve by the help of IOT device that we are discuss in this paper. The SCPS work on the battery so that this project can be easily portable and also we are add solar panels and converter modules this can help the battery to charge from solar energy. The IOT device is used to indicate the farmer by a message while someone enter into the farm and we are used SD card module that helps to store a specified sound to fear the animals.

## 8. CHANNELS of BEHAVIOUR

8.1 ONLINE

What kind of actions do customers take online? Extract online channels from #7

All the sensor data are stored in cloud and all the details are shared to the farmer via mobile.

8.2 OFFLINE

What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

All the physical conditions of sensors should be noted by the farmer. So that no other problems may be caused.