openSAP

TOUCH IOT WITH SAP LEONARDO

PROTOTYPE CHALLENGE

SMART LITTLE FARM
A small biological farmer wants to monitor, take actions per that and keep track on what is sown in the garden.

This occasional farmer has little time to dedicate to his farm because of his main activity. However, it wants to have a self-sufficient biological production of fruits and vegetables. To achieve this, he wants to have the process well automated. His farm has different cultivation areas with different sun exposure. He wants to receive notifications of what to sow, register what to sow and where.

During the week, he has little time, and dedicates more to his farm during the weekend. Like him, he thinks there will be lots of small biological farmers who have the same kind of problems and that this application would help a lot.

For Mr Green is very important that the irrigation should maximize efficiency in water use to ensure productivity. He has rainwater tanks and wants to get the most out of it.
Persona

Mr Green
Occasional Farmer

“I want to optimize my biological production with minimal effort to get quality food”

About

• 43 years old, married with 3 small children
• I have a small farm around my house
• I take care of the farm mostly after work or at the weekend
• I make all the work in the farm, sometimes with the “help” of my small children’s.
• Main job IT consultant

Responsibilities

• Choose the right combinations of plants
• Planting and reaping operation
• Optimize the crops yield
• Watering crops

Main Goals

• Produce more with less effort
• Keep the soil quality on a high level
• Reduce water consumption
• keep track of what is sown

Needs

• See the location of the fields and the planted plants
• Track the humidity level of each field
• Automatic watering the field
• Automatic notifications

Pain Points

• Plants not labeled
• Overwatering
• Combining the plants
• Can’t get instantly feed-back about the situation of plants
Point of View

As a spare time little farmer, Mr Green needs a way to keep track and monitor his production of biological plants, fruits and vegetables so that he can take good choices and make adjustment to optimize productivity and reduce water consummation.
<table>
<thead>
<tr>
<th>ACTIONS</th>
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</thead>
<tbody>
<tr>
<td>• Get to the farm</td>
<td>• Harvest</td>
<td>• Check the plants</td>
<td>• Check water deposit level</td>
<td>• Go home with some vegetables</td>
<td>• Plan next day activities</td>
</tr>
<tr>
<td>• Check humidity</td>
<td>• Plants new seeds</td>
<td>• Remove Weeds</td>
<td>• Watering</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>MINDSET</th>
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<tbody>
<tr>
<td>• Let’s do some field activities and check my plants</td>
<td>• Same vegetables are good to eat</td>
<td>• Why some plants aren’t growing?</td>
<td>• I think I’m consuming too much water</td>
<td>• My family will eat some biological and fresh vegetables</td>
<td>• I’m collecting some vegetables but I think it should be better and with less work</td>
</tr>
<tr>
<td>• Let’s seed new plants on the new empty space</td>
<td>• Plants are dry or overwatered?</td>
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<table>
<thead>
<tr>
<th>FEELING</th>
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<table>
<thead>
<tr>
<th>TOUCH POINTS</th>
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</thead>
<tbody>
<tr>
<td>• Hoe</td>
<td>• Fields</td>
<td>• Hoe</td>
<td>• Watering Can</td>
<td>• Box with vegetables</td>
<td>• Phone agenda</td>
</tr>
<tr>
<td>• Seeds</td>
<td>• Box</td>
<td>• Gloves</td>
<td>• Hose</td>
<td></td>
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<tr>
<td>• humidity measuring device</td>
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</table>
Prototype

Prototype screens for an IoT application to solve the PoV

Goal of Prototype Challenge

The farm is divided by areas and sections. All sections have sensors for temperature, ph and humidity in the soil. The water supply can be triggered by section depending on the water needs in the specific section. This is done automatically and can be monitored by the app. The farmer can register and follow-up the plants on each section. Notification are triggered on something needs attention.

Prototype mockup:

https://standard.build.me/prototype-editors/api/public/v1/snapshots/c3505efa9d173e2f0e1d37c1/artifacts/latest/index.html#/launch_page