

HOW WE DID IT



DISCOVERY WORKSHOP

iBot works with the client to create a comprehensive requirements document through a discovery process.

1

THE BRIEF

Can you help us remotely monitor Beverage Coolers, wherever they are?

Visicoolers are deployed by manufacturers of food and beverage (F&B) manufacturers to attractively display their products, and at the same time serve these chilled to the consumers. Since these organizations deploy visicoolers at the retail outlet at own expense, they need mechanisms to ensure the visicooler is at intended location (and not taken away), and that is used (not switched off to

MACHINE INTERFACE DEVELOPMENT



The heart of the connected machine is the revolutionary iQu tech, which was retro-fitted into this machine.

WRITING THE FIRMWARE



IBOT's software engineers and designers create efficient and beautiful interfaces for the machine, user, and machine manufactures to talk to each other, securely.

2

save electricity). The customer, a leading manufacturer of chilled beverages in India deployed iBot's Smart Sense for Visicoolers to monitor:

- Location (Latitude & Longitude)
- On/Off Status
- Temperature of Enclosure

MACHINE INTERFACE DEVELOPMENT

iBot Cooler Tracking device is installed on visicoolers that are already deployed in the field by the customer.

Two key considerations for interface of iBot Cooler Tracking device on visicoolers are:

2 a



Power:

A mechanism to draw this power from mains supply was implemented.

2 b

Fitment:

iBot Sense has integrated temperature sensor installed inside the cold chamber of the visicooler. The device (iBot Sense) is itself provided as a box with flanges having an ability to bolt it to the visicooler.

3

WRITING THE FIRMWARE

iBot Cooler Tracking device is powered by iQu E10 Connected Processor, and has an integrated adaptor and temperature sensor. Location of the visicooler is

identified based on triangulation of telecom towers with which the SIM of iBot Sense is engaged.

iBot's engineers wrote firmware application to receive temperature, location and timestamp, encrypt it, store it on the local storage of iQu E10, and transmit this information to cloud at periodic intervals.

WEB APP DEVELOPMENT



4

WEB APPLICATION DEVELOPMENT

Data received from visicoolers is made available to the customer's users through a web app. Some key features of the web app are:

4 a



Display location of all visicoolers deployed across India on a map.

4 b



Alerts to responsible officials on the following events:

- When a visicooler is moved
- Temperature increases beyond defined value
- Visicooler is switched off

TESTING & GO LIVE

5

SMART WATER GOES LIVE!

The entire solution was tested and validated, and is being rolled to several hundred installations.