Project Design Phase-1

Solution Kit

TEAM ID	PNT2022TMID13452
PROJECT NAME	Real-Time River Water Monitoring and Control System

In order to ensure the safe supply of the drinking water the quality needs to be monitor in real time. In this paper we present a design and development of a low cost system for real time monitoring of the water quality in IOT(internet of things).The system consist of several sensors is used to measuring physical and chemical parameters of the water. The parameters such as temperature, PH, turbidity, flow sensor of the water can be measured. The measured values from the sensors can be processed by the core controller. The Arduino model can be used as a core controller. Finally, the sensor data can be viewed on internet using WI-FI systemIn this proposed block diagram consist of several sensors (temperature, pH, turbidity, flow) is connected to core controller. The core controller are accessing the sensor values and processing them to transfer the data through internet. Ardunio is used as a core controller. The sensor data can be viewed on the internet wi-fi system.


Define CS, fit into CC
1. CUSTOMER SEGMENT(S)
Who is your customer?
i.e. working parents of 0-5 y.o. kids
CS
People living in rural areas near to the river ,who uses river water
6. CUSTOMER CONSTRAINTS
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.
CC
Water quality monitoring system is used for identify the water pollution on specific area. People may find it hard to recover if any fault occurs,this system prevent people from water pollution.
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
AS
Individual notification to each people could be sent,it is not possible . this system will still notify the corporation and they can further notify the people to aware.
Explore AS, differentiate


Focus on J&P, tap into BE, understand RC
2. JOBS-TO-BE-DONE / PROBLEMS
Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.
J&P
The river water quality monitoring system that checks periodically ,the dust particles,temperature and PH level and gave notifies for the public when the water quality varies
9. PROBLEM ROOT CAUSE
What is the real reason that this problem exists? What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.
RC
We know that the sensor are expensive and the system needs more than one sensors to work,these sensors are used periodically to check the quality of water and if any problem, need to be replace frequently.
7. BEHAVIOUR
What does your customer do to address the problem and get the job done?
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)
BE
The customer could use the user guide provided to overcame the problem or else they can report and contact the corporation. They will take care of the problem.
Focus on J&P, tap into BE, understand RC