ABC HACKATHON

Participant details

Participant name : Kasthuri j
Problem statement : Automatic sanitization system

Brief about the idea

Automatic Sanitization System: Due to travelling of heavy passengers in the trains there is a possibility of getting infected with the people suffering from various diseases. To address the issues,a system is to be developed for proper sanitization without manual involvement.

List of features offered by the solution

Automatic sanitization system comes equipped with the variety of features designed to enhance their effectiveness and usability.

1. contactless operations
2. Integrated temperature monitoring
3. Automatic disinfection
4. User alert and notification
5. Scheduled sanitization
6. Maintenance alerts
7. Data logging and reporting
8. chemical dispensing system
9. User friendly interface
10. Versatile application

Process flow diagram or use-case diagram

Start - User detection - Temperature check (Normal temperature) or (elevated temperature)-Initiated sanitization or Alter user / Administrator - Disinfection method selection - Activate disinfection mechanism - Monitor disinfection process - Completions of sanitization - Log data and generate report - End

Architecture diagram of the proposed solution

1.User Interface (Mobile App / Touchscreen Control Panel)
2. Control System (Microcontroller / PLC) 3. Sensor Module (Motion Sensors, Temperature Sensors)
4.Disinfection Mechanism (UV-C Light, Chemical Sprayers, Electrostatic Spraying)
5.Data Logging (Logs sanitization cycles, user interactions)
6. Notification System (Alerts for elevated temperatures, maintenance)
7. Cloud Integration (For remote monitoring, data analysis, reporting)

Technologies to be used in the solution

1. Microcontrollers and PLCs
2. Disinfection Technologies
3. User Interface Technologies
4. Data Logging and Analytics
5. Notification Systems
6. Cloud Integration
7. Networking Technologies

Estimated implementation cost(optional)

1. project scope and complexity
2. Resources allocation
3. Technology and Tools
4. Ongoing maintenance and support
5. Contingency and risk management
6. Benchmarking against similar projects

Snapshots of the prototype

1.Figma snapshot feature: There is a desire for figma to implement a feature that allows users to create snapshot of specific prototype interaction.
2. Rhino Snapshots Plugin : A plugin called Snapshots has been added to Rhino, which functions similarly to Named Views or Named Positions.
3.General Use of Snapshots : Snapshots are often used in design and development to capture the current state of a prototype, allowing teams to iterate on designs while retaining access to previous versions for reference.
4.Historical Prototype: There are also references to historical prototypes, such as the Leica Snapshot prototype from the 1930s, which showcases the evolution of design and technology over time.

Prototype performance report /benchmarks

1. business prototyping benchmark reports
2. Emissions and performance benchmarking
3. Microarchitecture performance
4. sUAS performance result
5. Rapit prototyping and manufacturing benchmarking

Provide links to your:
1.GitHub public repository
2.Demo video link (3minutes)
3.Final product link

1.github public repository
* Accessibility
*Collaboration and contributions
* Limitations
* Best practices
* trending and popular repository
*Visibility and portfolio building