

IoT Enabled Collaborative Kitchen Assistant

(Project Proposal for Major Project in collaboration with IoT Club)

Our "IoT Enabled Collaborative Kitchen Assistant" project aims to develop fully collaborative kitchen assistants that will enhance automation in franchises such as McDonald's and Domino's. We will create various intelligent systems, including smart kiosks, inventory management systems, order customization indicators, auto-optimization systems, recommendation systems, mobile wallet systems, order display status, order monitoring, performance management systems, and smart kitchen assistants. These systems will work together to streamline kitchen operations, improve customer experience, and increase efficiency.

Component of the project:

1. Self-Ordering Kiosks:

We intend to develop an intelligent kiosk catering to diverse audiences. This kiosk will incorporate personalized recommendations based on RFID card person identification, enhancing user experience. Additionally, the kiosk will be seamlessly integrated with users' mobile devices, providing heightened flexibility. Users will have access to a comprehensive range of payment options, including the convenience of virtual wallets. All kiosks will be interconnected to a centralized server, efficiently managing transactions and orders. As a crucial aspect of our project, we aim to establish an AI-driven recommendation system. There will be options to fetch their current cart from their mobile apps and also reorder from their transaction history.



2. Order Status Display :

This will be a screen displaying the status of each order similar to the screen found in MacDonaldd and Domino's. This will indicate the real-time status of the order including current progress and estimated time.



3. Inventory Stock Indication :

Our project will monitor the real-time status of the stock in the inventory and alert the concerned person to restock those and it will automatically update the menu based on the stock/item/ingredient status.

Even Refrigerators will be integrated with such monitoring systems. We will implement a conveyor system in stage 2 of this project.

4. Custom Light Indication to the employee:

Our kitchen assistant will also indicate to the worker which ingredient to use for the current



order the worker is creating using some feedback systems and will have some bypass systems too.

5. Order Indication on each Table:

Users will have an indication of their order status on their table too from a screen integrated into the table. It will also indicate the real-time status of their order and after the order is given to the user, the display will be used as an advertisement system.

6. Menu recommendation screen with ML to identify the person in the store and recommend accordingly :

We will use face recognition to detect particular customers in the store and update the recommendation screen accordingly.

7. Store Performance Monitoring Portal:

A website with authentication for admin will be made too in order to monitor store and employee person. This will indicate the parameters like total purchases, employee performance etc.

8. Custom Drink Dispenser :

A custom IoT-enabled dispenser machine will be made to further automate the system

9. User customisable ambience:

allowing the user to adjust lighting, remember preferences, allow the user to add music to quench.

10. Graffiti Wall:

Interactive wall

