

SMART TROLLEY

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Introduction

The Shopping Revolution

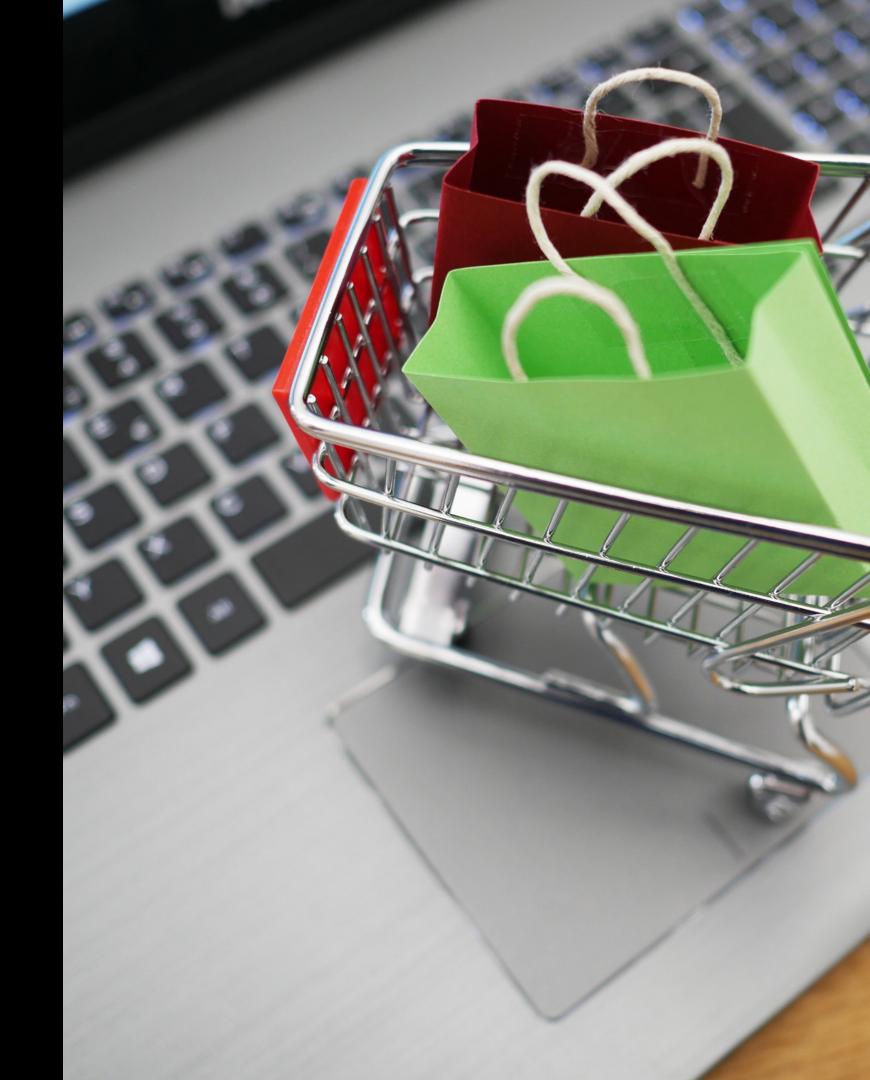
•The Smart Trolley revolutionizes the shopping experience, eliminating the need for traditional checkout lines.

•It streamlines the entire process, from item selection to payment, making shopping quicker and more convenient.

•Say goodbye to tedious scanning, manual billing, and waiting – the future of retail is here.

The Revolutionised Shopping Experience

- Through cutting-edge technology, the Smart Trolley automates product scanning as items are placed in the cart.
- Real-time billing means customers can check their running total at any time, reducing billing errors and surprises.
- Retailers benefit from efficient inventory tracking, optimizing stock management and reducing waste.



Problem Statement

1. Long Checkout Lines

- Statistics reveal that on average, shoppers spend nearly 10-15 minutes waiting in checkout lines during each trip to the store.
- This frustrating and time-consuming process has become a significant pain point for customers, leading to a decrease in overall satisfaction.

Problems

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Shopping Inefficiencies

- Many shoppers struggle with keeping track of their items, frequently forgetting to purchase essential products or buying duplicates.
- This inefficiency not only leads to extra trips to the store but also contributes to food waste and additional environmental concerns, necessitating a smarter way to manage shopping lists.

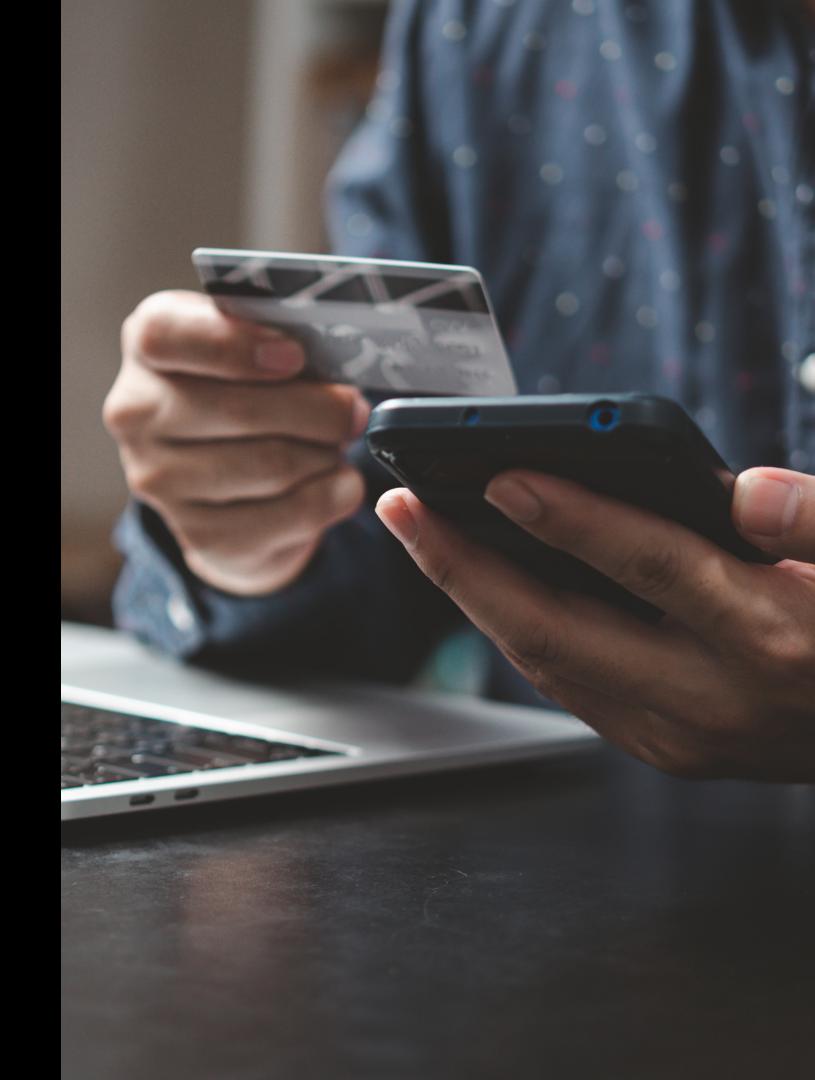
Contactless Shopping Demand

- The global shift towards contactless shopping has accelerated due to health and safety concerns, with an increase of 67% in online and self-checkout purchases.
- Traditional in-person shopping experiences often lack the flexibility and safety features that modern consumers are seeking, highlighting the urgency for a more streamlined and contactless alternative.

Solution:

Smart Trolley Concept

- The Smart Trolley is a cutting-edge innovation powered by the ESP32 microcontroller, a high-performance and versatile platform.
- It combines a sophisticated R-FID scanner and an intuitive display interface to create a seamless shopping experience that's both efficient and user-friendly.



Automating the Billing Process

- Our ESP32-based Smart Trolley automates the billing process by instantly scanning and recording product R-FID as items are added to the cart.
- As each product is scanned, the display provides real-time updates on the total cost, eliminating the need for traditional checkout queues and manual calculations.

Future Roadmap:

- Barcode scanners provide a quick and accurate method of identifying products.
- Faster scanning speeds compared to manual entry, leading to quicker checkout times.

Future Roadmap:

Enhanced User Interface:

- The larger LCD screen provides a more spacious and visually appealing user interface.
- Improves the overall user experience by making information and interactions more accessible

Future Roadmap:

Convenient Checkout Process:

- Customers can view the total price of their selected items on the larger LCD screen.
- Streamlines the checkout process by providing a clear summary of the purchase.

Conclusion:

- In conclusion, the Smart Trolley project marks a significant leap forward in redefining the retail experience. Combining cutting-edge technologies such as RFID, AI, a larger LCD screen powered by Raspberry Pi, and a seamless payment method,
- This innovative solution promises to enhance both customer satisfaction and operational efficiency for retailers.

Do you have any questions?