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RFID Based Smart Shopping Trolley

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Abstract: *The smart shopping trolley powered by RFID technology employs Radio Frequency Identification to automate the identification of products, track inventory, and process payments. As items are added, the trolley automatically scans them, showing the total amount in real-time to ensure accurate pricing. This approach reduces the time spent at checkout, decreases the likelihood of errors, and helps to deter theft, while also offering personalized recommendations and promotions to enhance the shopping experience. This document examines the design, implementation, and potential advantages of incorporating RFID technology into shopping trolleys, with the goal of improving efficiency and security in retail settings*

Keywords: RFID, Smart Shopping Trolley, Inventory Management, Automated Checkout, Retail Technology, Product Identification, Real-time Pricing, Security, Personalized Recommendations, Retail Efficiency

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