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Implementation of Intelligent Navigation System for Shopping using Smart Robots

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Abstract: The development of a path finding algorithm-based intelligent navigation system for a smart robot shopping cart is an exciting project that has the potential to revolutionize the retail industry. With the integration of advanced path finding algorithms, the system will be able to navigate through the store independently, avoiding obstacles and dynamically changing its course to provide customers with a seamless shopping experience. The inclusion of personalized product recommendations and store layout details will help customers find the products they need more quickly and efficiently. Additionally, the system's user interface will provide an interactive shopping experience for customers, making the process more engaging and enjoyable. By automating the shopping cart, the system will also alleviate the workload of store personnel, freeing them up to focus on other important tasks. This could lead to a more efficient and cost-effective retail operation, which may translate into cost savings for both the retailer and the customer. Overall, the successful implementation of the project could significantly enhance the shopping experience for customers, potentially leading to increased customer satisfaction and loyalty. The project could also have broader implications for the retail sector, as other retailers may seek to adopt similar technology to remain competitive.

Keywords: Intelligent Navigation System, Smart Robots, Shopping, Mobile Application

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