

# **SMART CART WITH AUTOMATIC BILLING AND ANTI-THEFT**

## **ABSTRACT**

Shopping involves getting tired due to standing in a long queue for the bill and payment process. Hence, Automatic Shopping Cart is designed with Instant Billing and Theft Protection. The main goal is to provide a technology oriented, low-cost, easy, and rugged system for aiding shopping in person. The automatic shopping cart will reduce the time and effort of the customer thereby helping the customers walk straightaway into the shop, purchase products and walk out of the shop. In order to realize this, a RFID reader and an LCD screen are attached to the cart. The RFID reader scans the RFID tag on the item when it is placed near the RFID reader where the item details will be displayed on the LCD screen. In this way the cost and weight of the item gets added to the bill. A weight sensor installed on the smart cart for weighting items. During the time of checkout, If the added weight of all items is equal to total weight of the cart, then it is concluded that no theft is detected and the shopper can proceed with a final checkout. In case of theft, extra unaccounted weight will be detected and notified on telegram app and on LCD. In this way, a security check is implemented. When a customer finishes shopping, they pay at the checkout point using the generated billing information and the bill is sent as an SMS to the customer's telegram application. Hence this system is suitable for use in places such as supermarkets, where it can help in reducing workforce and in creating better shopping experience for customers. By this practice, the cart will itself do all the billing and the problem of long queues on counters will be solved.

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