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Review Paper on Smart Shopping Trolley

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Abstract: Smart Shopping Trolley is basically a project which conventionally comes under the IOT sector. IOT has boosted the technology in our day to day life. Almost everywhere the IOT has its hands such as industries, locomotion, education, accommodations (smart buildings & smart cities) , security, shopping , etc. Easy & efficient work execution is the main objective of this techonlogy. This project comes under the application area of shopping. Shopping is one of the trending area which has customers everyday. But yet the traditional way of shopping in malls and marts or any grocery shops are very time consuming. As it is said time matters, the proposed project will not only helps the costumers but also the retailers or a shopkeeper in calculations of bills of the inventories as fast as possible. This trolley is cheapest & easy to be handled by anyone. Trolley basically consist of the two main features which are, firstly , the overall calculation of the total bill of the inventories inside the trolley & secondly, budget reminder buzzer facility. Components such as RFID module, RFID tags, keypad, lcd display, arduino mega are used here for the smart shopping trolley implementation & design. RFID module , RFID tags , lcd display arduino mega are used for the calculation of total bill & buzzer, keypad, arduino mega works together in providing the budget buzzer facility. The working of smart shopping trolley is in such a way that whenever the user keep its product inside the trolley the RFID reads the RFID tag and provides its diplay on the lcd along with its total calculation. If tge user wants the reminder of its budget , the keypad is the way through which user will enter its own budget. If the budget exceeds the buzzer will starts alarming. If the user wants to change its budget he or she may change it by using the change option provided in keypad. Hence this project is very useful and will have a great demand in future.

Keywords: RFID tag, RFID reader, IOT, Central Billing Unit, Automation Business Analysis.

I. INTRODUCTION

There are many problems we are facing when we are going to shopping in super market. To overcome this problems SMART SHOPPING TROLLEY is made for faster check out and easy locating. It helps customer for adding cost of product at the same time when they purchase product and add it into the smart trolley.Nowadays people looking for products which are more convenient, comfortable and efficient in everyday life, and Smart shopping trolley is same as customers requirement. So on the basis of customers requirement, we discuss an innovative idea of Smart Shopping Trolley. This trolley help people in terms of reduce time spent while shopping in super market. The main goal is to provide a technology oriented, minimum cost and easily scalable system for customers. We are making Smart Shopping Trolley by using RFID and LCD display. This trolley helps in shopping for automatic bill

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generation of all products put into the trolley and total amount of products display on LCD screen which would be there in trolley. This trolley has also help the customer to manage their budget, when customer take trolley she/he can enter the maximum budget of shopping.if the budget exceeds than the customer's input budget then buzzer will make sound .

II. Block Diagram
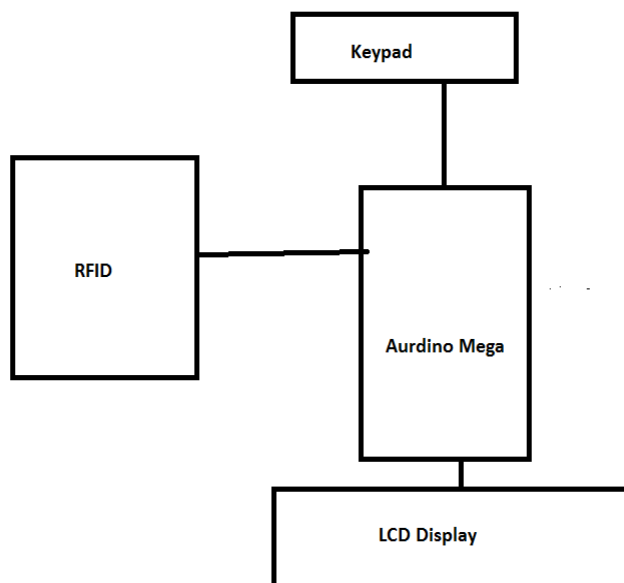
III. HARDWARE

RFID Module:

RF is Radio Frequency Identification Reader (RFID Reader) is device used to gather information from an RFID tag, which is used to tag individual objects. Radio webs are used to transfer data from the tag to RFID reader. RFID is similar to the theory for bar code technique.

Aurdino Mega

We used aurdino mega to stored all the processing step which is being displayed on LCD display.The trolley flow step from where actual module will work is code is stored in aurdino.It is used as a microcontroller we can also connect aurdino with USB connection and also provide input output lines

LCD display

It is used to display the total amount of our shopping and also displayed the product which was purchased by customer. It is easy for user for payment purpose.cause it's displaying the total amount of your shopping.

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Keypad

The most innovative idea in the shopping trolley is keypad which is used to entering the budget, because we all know nowadays we all have budget to do shopping.we going to shopping mart with having the knowledge of or some imagination of our budget .

IV. CONCLUSION

With the help of this project lot of time of the customers and the shopkeepers is saved. It could be helpful for the business to increase its speed and satisfy both shopkeeper and customers.

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