

Smart Wardrobe

Relson Pinto¹ Shaili Shah²

^{1,2}Student

^{1,2}Thakur Polytechnic, Kandivali, Mumbai, India

Abstract— People nowadays like to shop and buy clothes and the demand for clothes is never-ending. However this leads to most of the clothes lying inside wardrobe for long time even up to several years. Smart wardrobe will help them to manage their clothes inside wardrobe. The smart wardrobe basically helps to keep a track of identification of clothes, the times we have worn them, color information all with the help of an RFID reader. This concept is useful in big countries where generally there is high humidity where clothes may get molded or for countries having vast population because the more the population, the more can be the NGO's and urban-rural difference. This leads to a vast application of smart wardrobe in providing old clothes to poor households or through NGO's. Smart Wardrobe is an upcoming topic which comes under eco-friendly and social cause leading to good reception.

Key words: Smart Wardrobe

I. INTRODUCTION

Wardrobe which can suggest you which cloth to wear, notify you which cloth has been ignored. User can get suggestions on what to wear today from their phone app based on what events are there in their calendar and also the weather. The application will provide a dashboard to show that which cloth has the highest frequency of wearing and which has been never touched for long time. Application can further suggest user to sell it into second hand platform or make a donation for charity.

II. PURPOSE OF OUR PROJECT

Girls will tend to buy more clothes than their need and ended keep inside wardrobe for years but never wear it. While buying clothes, girls will be controlled by emotion rather than rational. They will likely buy without thinking and this ended up as a result paying more money and occupied more spaces. Besides, living in the high humidity and warm weather country such as Singapore, new clothes can easily become moldy and smelly. The idea integrated IOT units together with mobile app. It is not only an inventory tracking system but an established mobile personal inventory management system. With a better management of clothes, user have a better view on which clothes they wear the most frequent at the same time which is least frequent. This may help them to further decide for those least frequent clothes to either give to friend or make a donation for charity.

The main usage in practical life can be done in malls to manage the clothes. In this case it will not replace the employees so employment won't go but at the same time a helping hand to the employees.

III. VALUE PROPOSITION & PRACTICAL CONCEPT

Nowadays RFID technology is becoming more mature and common. The usage of RFID tag has become very common and even printable using a printer. Also, the RFID reader

module become cheaper and cheaper at the same time better performance. This can greatly reduce the set up cost of an inventory tracking system.

The system only require one time set up and one time registration of cloth, the rest of the process will be automated. Whenever user taking or putting in a cloth, it will be tracked automatically.

Once the data is collected, it can be processed further and analyzed to give user suggestion on what to wear today, which cloth has been ignored etc.

A. Personal Use

This concept simply help user understand what their need and help them to save money for buying clothes or suggest them to make a better arrangement for their unused clothes (donate, exchange or sell). As a result, small investment bring user great saving.

B. Market Proposal

This concept simply help employee to understand which type of cloth is kept at which place, in a particular wardrobe which size cloth is kept in which section, etc. In short it gives a helping hand to the employees for managing and keep tracking the clothes. This helps to keep the record of clothes sold per day.

IV. FLOW OF THE PROCESS

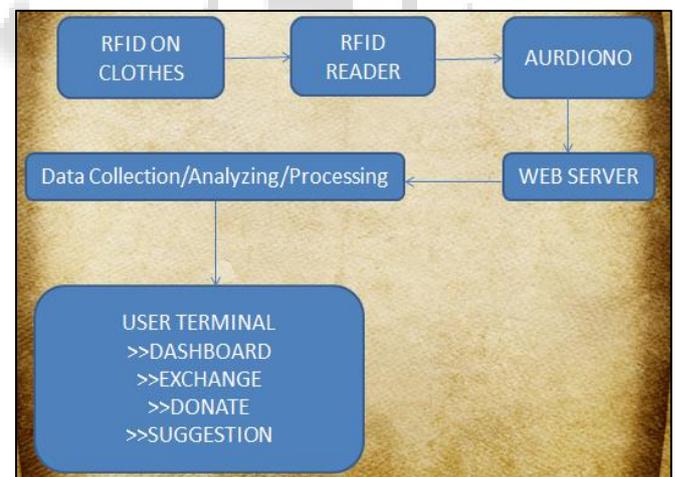


Fig. 1: Flow of the Process

V. WORKING OF THE MOBILE APPLICATION

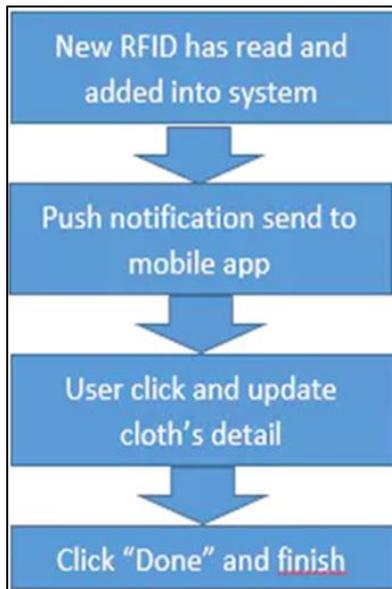


Fig. 2: Working of the Mobile Application

VI. TECHNOLOGIES USED IN THIS PROJECT ARE AS FOLLOWS

Hardware components:	Software Components:
Arduino UNO	IOT
JT2850 RFID module	Web Servers
JT606 RFID antenna	Arduino IDE
	Arduino Studio

VII. FUTURE SCOPE & CONCLUSION

- Smart wardrobe will soon make everything regarding clothes simpler and easier (E.g Removing creases) than it is now.
- Automated control would be obtained regarding clothes with the help of app-based personal assistants.
- This application will help user to sell it through second hand platform (NGO's) or make a donation for charity.
- This application will help malls to manage clothes.
- "Cloth care" would be redefined through this application.

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