ENTREPRENEURSHIPS

(ENT600) (BLUEPRINT)

SMART TROLLEY BY USING BAR CODE

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Executive summary

Izz Tech Sdn Bhd is introducing a new product to the customers which is the smart trolley by using bar code. Our company is targeting supply for smart trolley since it is people can estimate or calculate their daily budget grocer. Smart trolley can make people life easier when they entering the supermarket or hypermarket and also customer friendly which can help people from over budget. People either young or old can use this product safely. Other than that, our product can save people times like when they scanned all their items to the bar code scanner smart trolley can total up all the items and the user can do fast payment without waiting longer to do payment. We will sell our entire product to whole Malaysia to make it the product important to each supermarket. After for a next year, we will make sure our product will be sold worldwide with more efficient and more advanced of their technology. This way can make our company become the largest trolley manufacture. Our product will be always up date to make more efficient and maintain of the quality product. Then, our target market is retailer to all supermarket and hypermarket in Malaysia. We sold our product to certain group such as retailer at supermarket and hypermarket in Malaysia. This price of this product is not too low and not too high but it suitable price for the retailer to buy it. The target production of our company for second year is RM30000.The management teams of our company are divided into several sections and each of the section were led by experienced and professional employee to ensure our company's product quality and efficiency.

Product description

2.1 Details of the product

The product of our company, IZZ TECH Sdn Bhd is smart trolley, which is barcode trolley is relatively new to the market in our country. This smart trolley is more different compared to the other trolley that has been in our country. This smart trolley idea is based on the most popular automated self-checkout system in most of UK retail stores. The concept is design into a small version of the automated self-checkout system on a shopping trolley with a user interface screen which allows customers to make payment for items scanned. Smart trolley was created to make easier people used because this trolley can calculate their self-budget. The smart trolley comes with all the all traditional services including scanning an item to check for the prices and show all the expired date will be appeared on the screen after scan that items. The smart trolley is design with security measures to prevent it being wheeled out from the store's premises. The smart trolley can fill up the item about 300 kilogram. It has four wheel that easier for the trolleys carry a lot of item especially heavy item

2.2 The application of product

The smart trolley was design by using barcode scanner and allows people to scan the items. How barcode trolleys work? A bar code consists of a series of parallel, adjacent bars and spaces. Symbologies are used to encode small strings of character data into a printed symbol. A bar code reader decodes a bar code by scanning a light reflected light is detected with a photodiode which produces on electronic signal that exactly matches the printed bar code pattern. This signal is then decoded back to the original data by electronic circuit.

2.3 unique features of product

➢ Using IOT

Make user save data at cloud and can show by using smart phone. This system provides on spot scanning of product and shows its price details on LCD. This shows customers to compare the total price with budget in the pocket before billing. Whenever, a customer is

done with his/her shopping and near to the billing counter, the data from LCD is going to transfer to the counter. By this way, it will save the time of the customer as well

➢ Calculate daily budget

Easy to estimate of the customers budget daily grocers by using barcode scanner can show the price of items and details about the items. User can be aware of the total bill amount during the time of purchase.

➢ Save time

Reduces time spent at billing counter and increases customer satisfaction. People no need to queue at counter to do their payment.

2.4. The present state of development

The product can be improved with more initiatives in research and development (R&D) and capital provided. Duration needed a few months to develop, test and introduce the product to market.

The material used in this product:

➢ Arduino Uno R3
This allows for faster transfer rates and more memory. Arduino can be used to develop stand-alone interactive objects or can be connected to software on your computer such as, flash, processing, MaxMSP. Arduino as a brain to save, receive and send data and also have special features.
- The special features:
  -ATmega328 microcontroller
  -input voltage-7-12V
  -14 digital I/O pins (6 PWM outputs)