Er. Perumal Manimekalai College of Engineering

INNOVATIVE AND ENTREPRENEURSHIP DEVELOPMENT CENTER

“SMART SHOPPING BASKET”

Team members:
Manisha G Nath ,III/IT
Priya.S ,III/ IT
Vijay bhaskar,III/IT

MENTOR
Ms.R.Narmadha AP/IT

PROBLEM STATEMENT

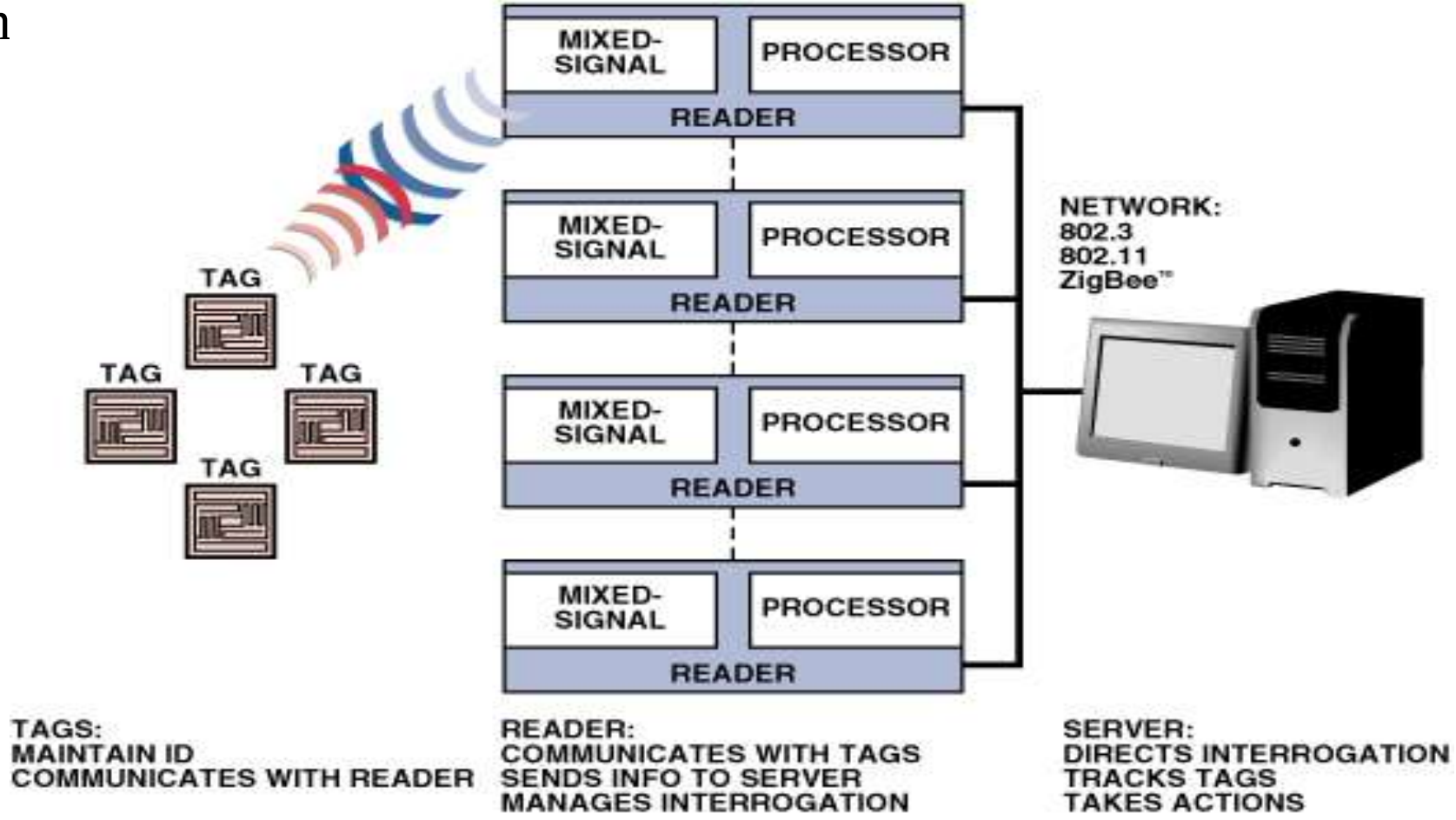
- The Supermarkets are almost crowded with long queues.
- Conflict between the billed and unbilled items.
- Customers unaware of the recent product's price.
- Other available market products has potential to carry only goods and bill at counters

OBJECTIVE

- Developing a smart basket that helps customers to bill their own products. Hence, saves time.
- A basket which is designed with the rate calculator, quantity , price of each items so that the items don’t pile up during billing

INNOVATION

- Smart shopping basket is innovated with the following components:
  - RFID tag on the item
  - RFID reader
  - RFID sensor
  - LCD display



TECHNICAL DESCRIPTION

customer purchases the item

inserts each items in the cart

RFID senses the inserted item and the details are shown in the LCD display.

when each items are added continously, cost is calculated

the final cost of items in each basket is displayed at billing section

the bill is payed by the customer

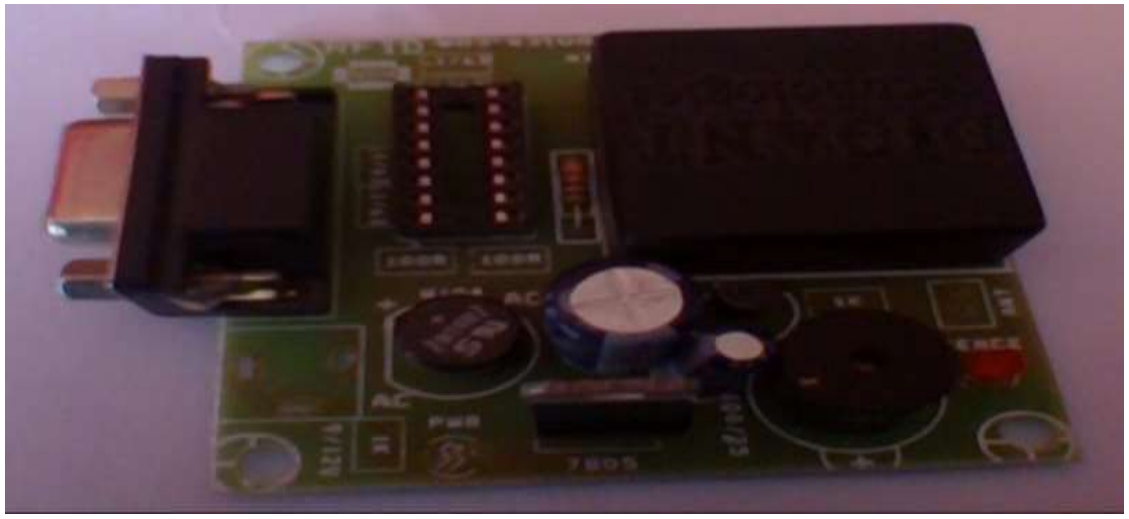
COMPONENT DESCRIPTION

- A long basket
  - RFID tags
  - RFID reader
  - RFID sensor
  - LCD display

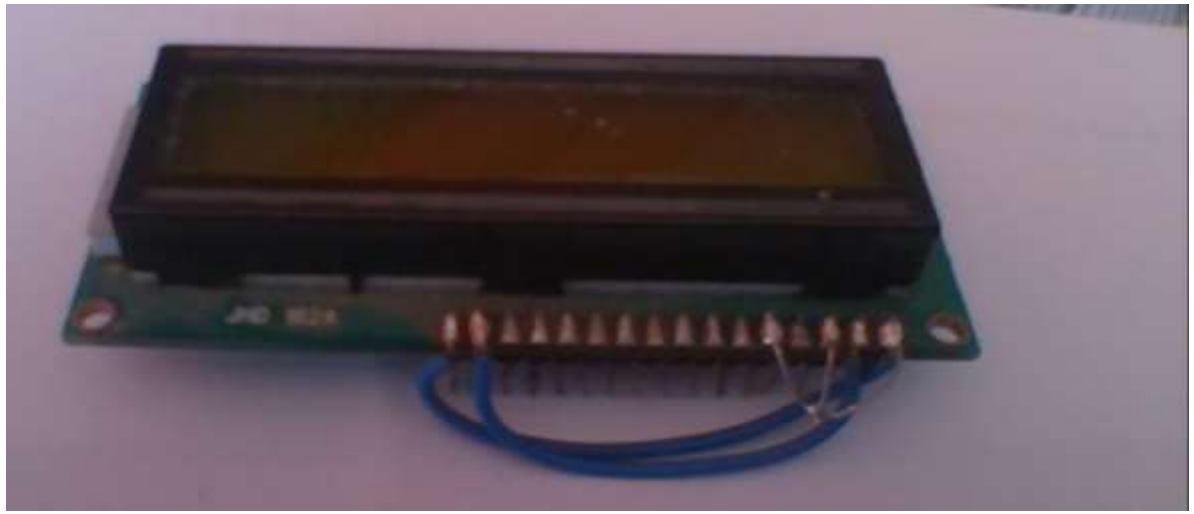
RFID reader

PRINCIPLE

- Retrieves the price of data from centralized system.
- Generates the Bill when consumer ends shopping
- Invoice, Sales, Weekly, Daily, monthly Generation
- LCD displays Offers during Festive / weekends
- Reader scans at 1sec per product



RFID sensor



LCD display

BUDGET REQUIRED

Production Cost	Material Cost	Total Cost In RS
Raw Material Cost	1 RFID Reader 125KHZ	3,000.00
	1 RFID Sensor	2,500.00
	1 RFID Microchip Tag	100.00
	Display	1000.00
	Basket	300.00
	Wireless TX & RX for display	4500.00
	Battery, power supply	2000.00
	Electronic circuits	3000.00
Manpower Cost	1 Labor per day	300*2*1 600.00
Manufacturing cost	Per product	700.00
Packing & Delivery cost	Per product	300.00
	Total Cost Per Product	18,000.00
	25% Profit Per Product	1250.00
	Selling Price	19,250.00

PRODUCT DEVELOPMENT

- COMPONENTS PURCHASED:

  RFID reader, RFID sensor, LCD display, shopping Basket.

- ACT COMPLETED:

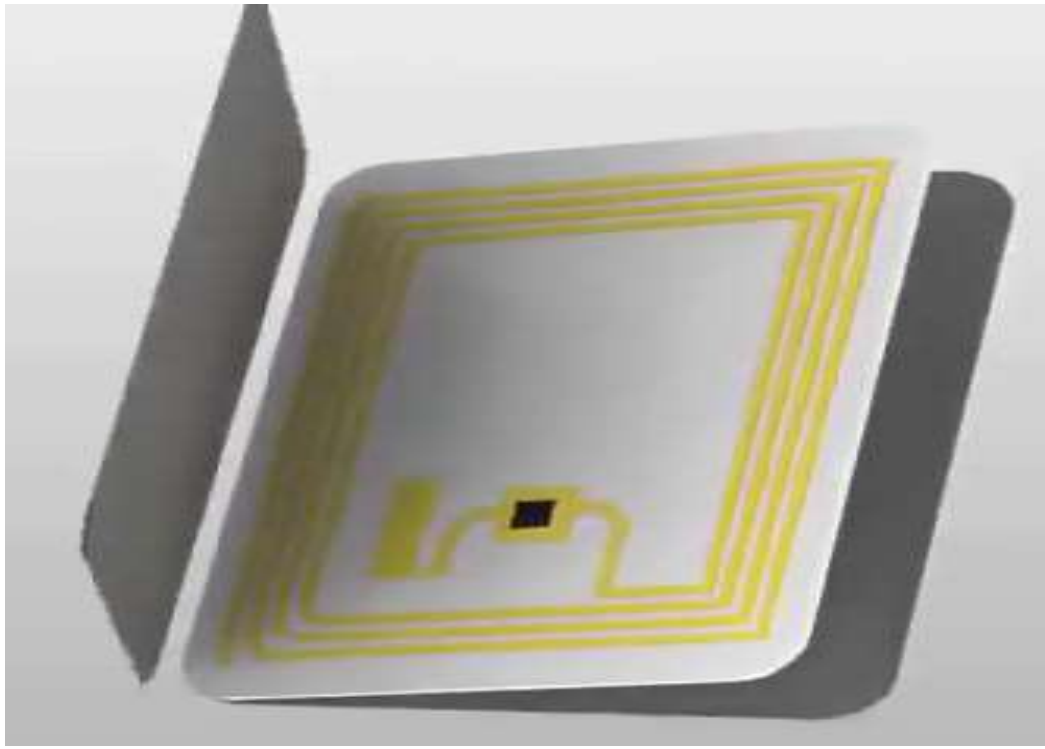
  Started with eclipse coding.

- YET TO COMPLETE:

  integrating components.

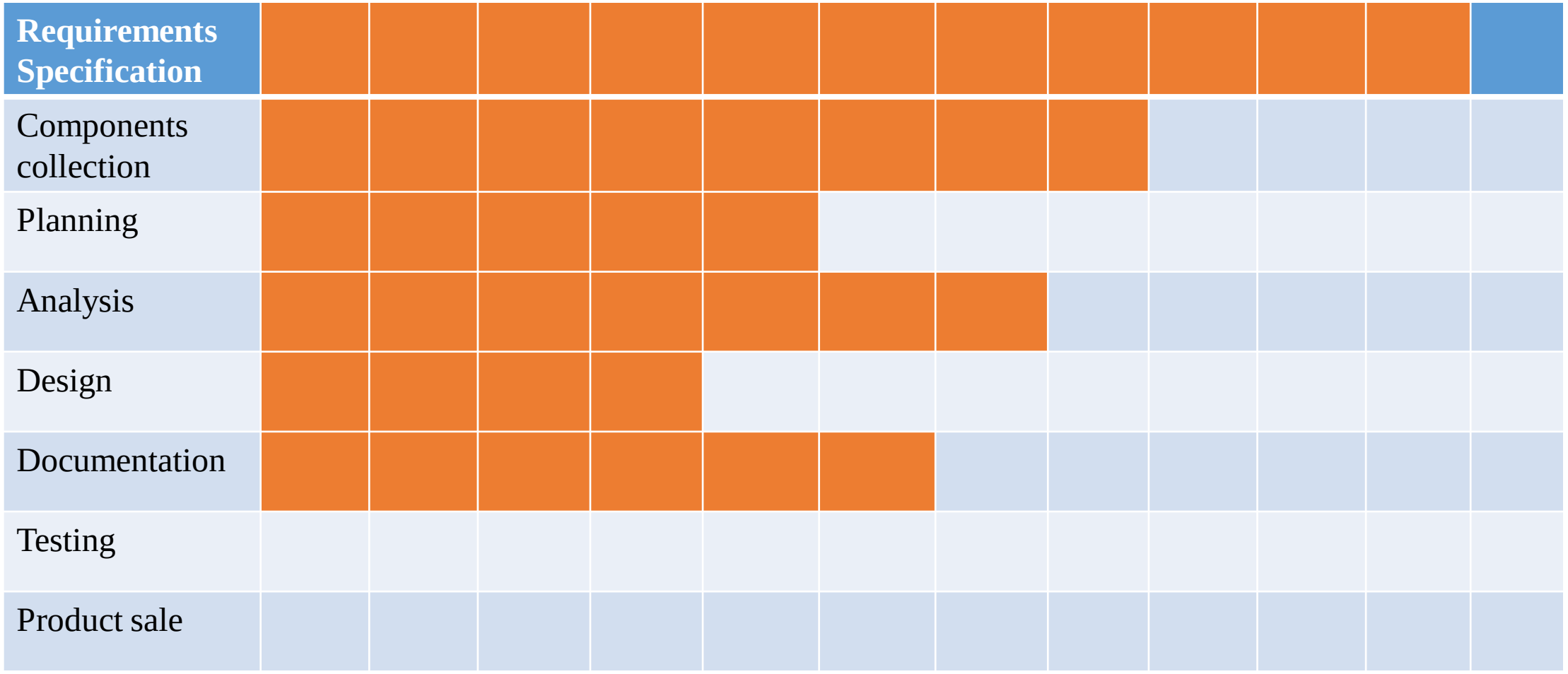
- TIME REQUIRED TO COMPLETE:

  4 months.



RFID tag

TIMELINE ACTIVITY



COMMERCIALISATION

- The final product is shopping basket.
- It targets customers in the supermarket.
- It is mainly focused in supermarkets, malls.
- The cost of single product is Rs.19,250.
- Per month 5 products are manufactured.
- Maintenance: 6months free service.
  guarantee of 1year.
- Current market strategy: bar code readers are being employed which leads to long queues and lack security.

CONCLUSION

- Other available market products has potential to carry only goods and bill at counters whereas, smart shopping basket has ability to bill the customer’s own product.
- It saves customer’s time during shopping.
- It increases the service in super market thus it helps in the country’s over all development.

COMPANY REGISTRATION DETAILS

- Company name: “BASKET DECORS”
- Members:

    S.Priya

    Manisha.G.Nath

    Vijaybhaskar.J