

SMART BILLING SYSTEM

SUBMITTED BY : AJESH R

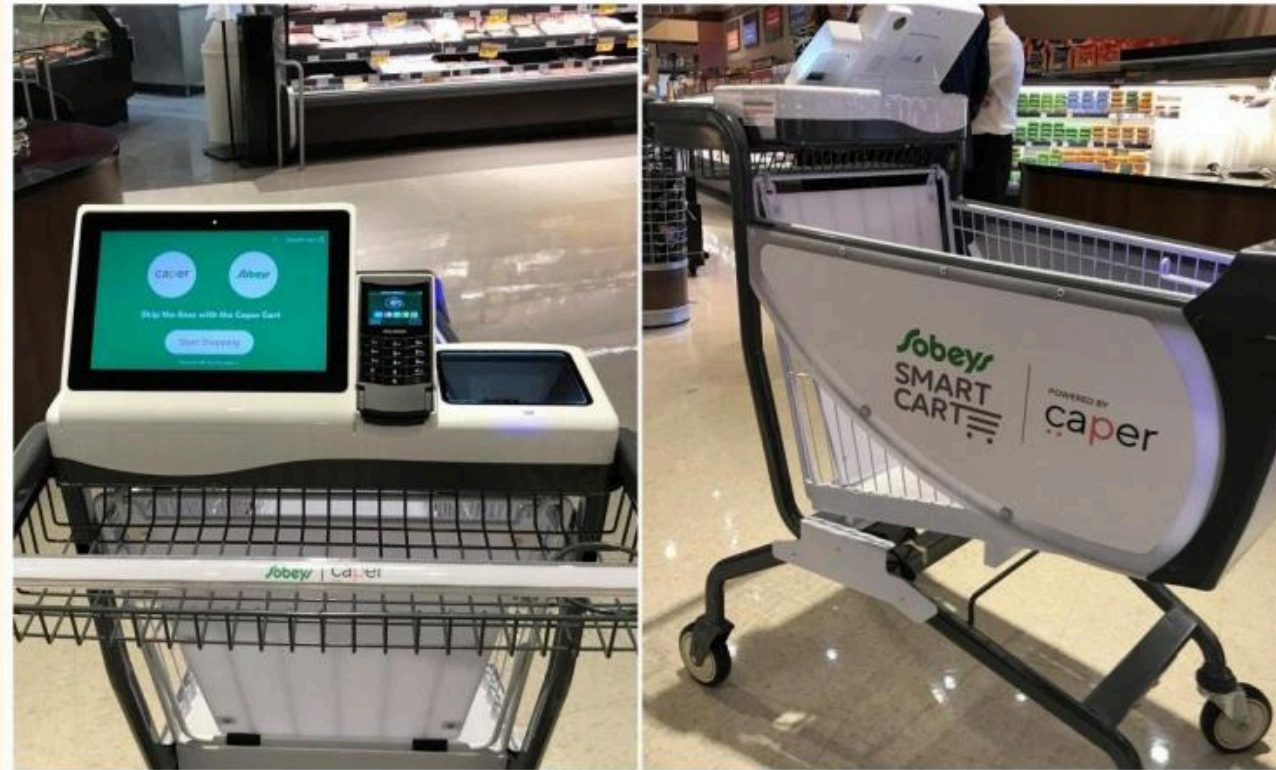
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INTRODUCTION

- We see large queues for billing in Malls .
- Objective of project - prevent wasting time in queues.
- We are proposing a smart trolley billing system.
- RF Id module automatically identify product.
- Bill is counted.
- It will audit the purchased products
- Payment is made online automatically
- Final billing is made from the cart itself .

COMPONENTS REQUIRED

**RF ID TAG AND
READER**

**NodeMCU
ESP8266**

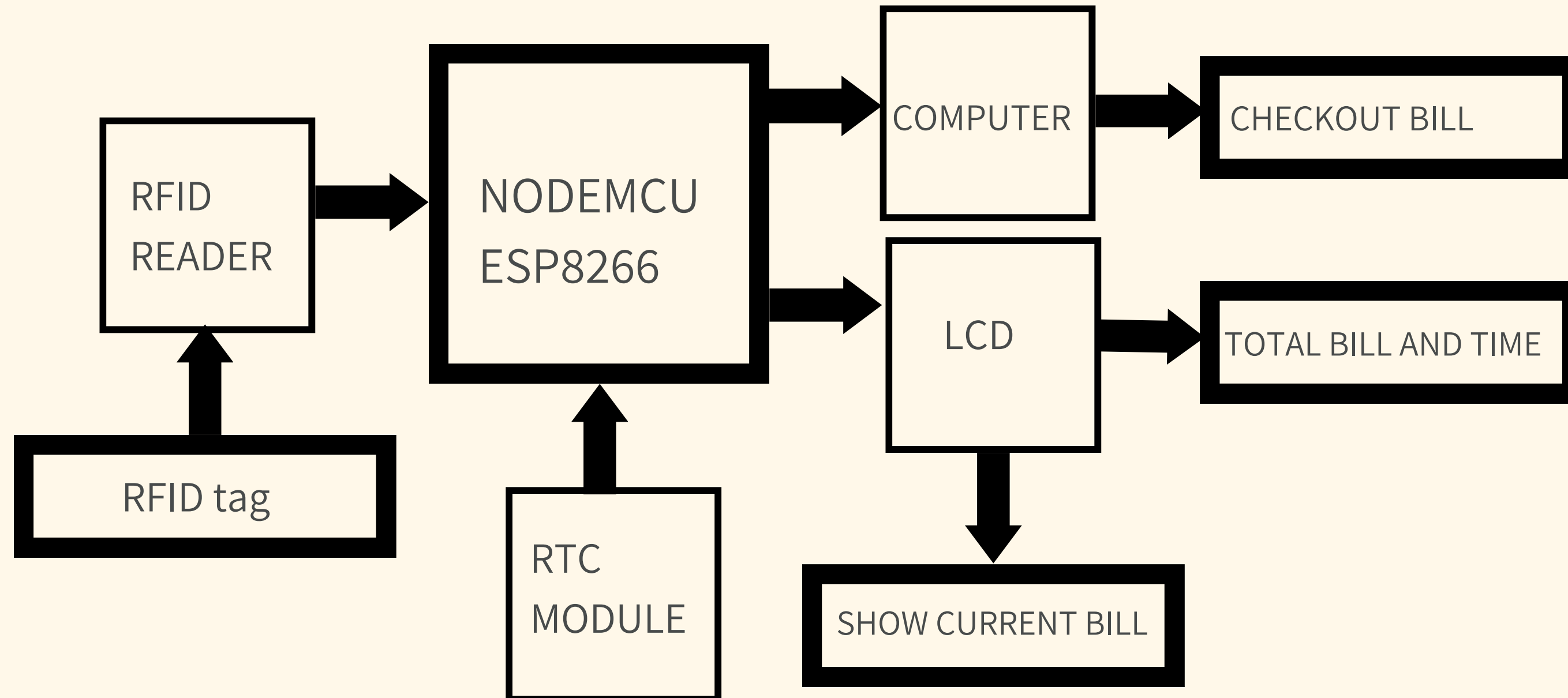
LCD DISPLAY

POWER SUPPLY

RTC MODULE

**TROLLEY AND
PAYMENT QR**

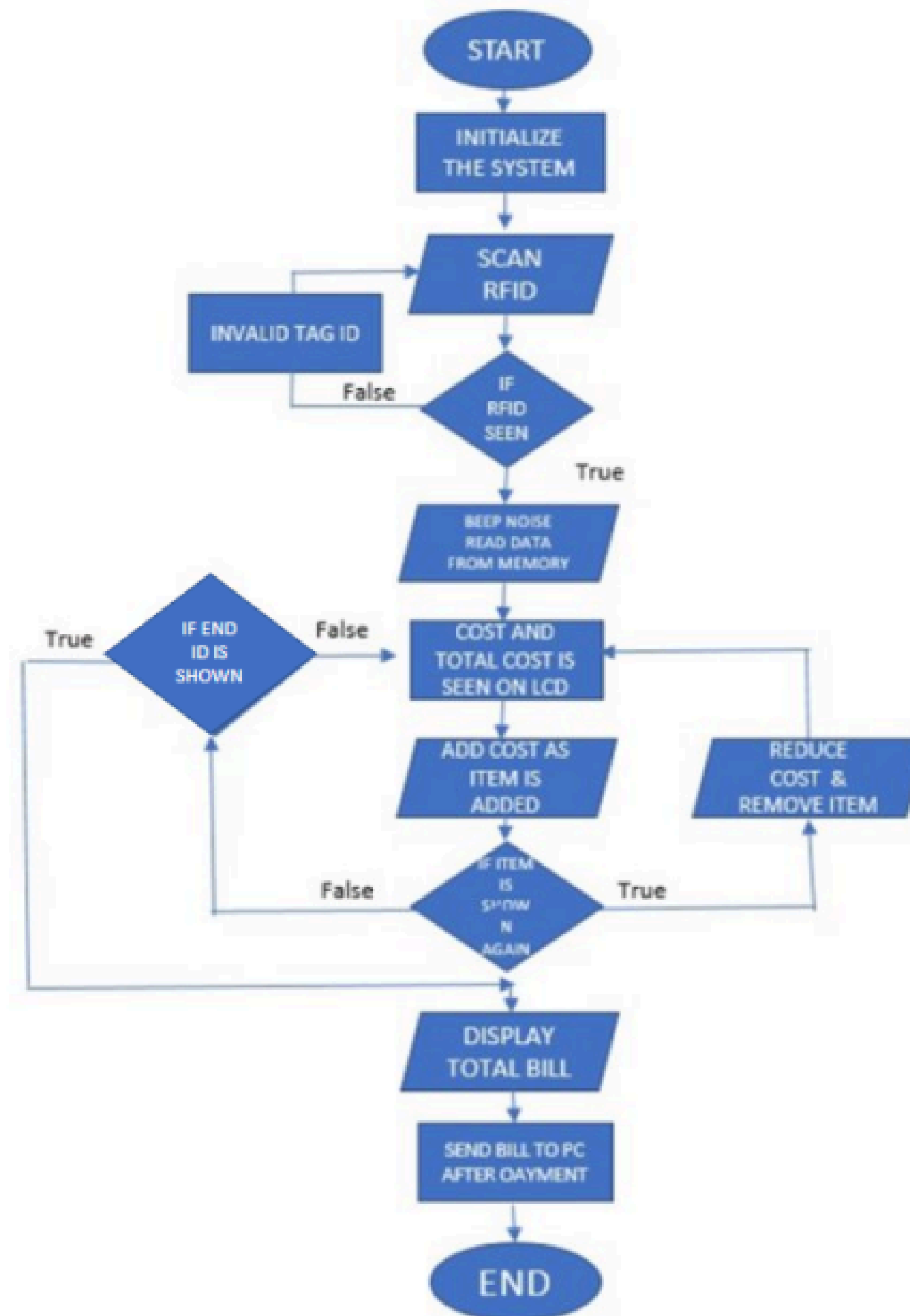
BLOCK DIAGRAM



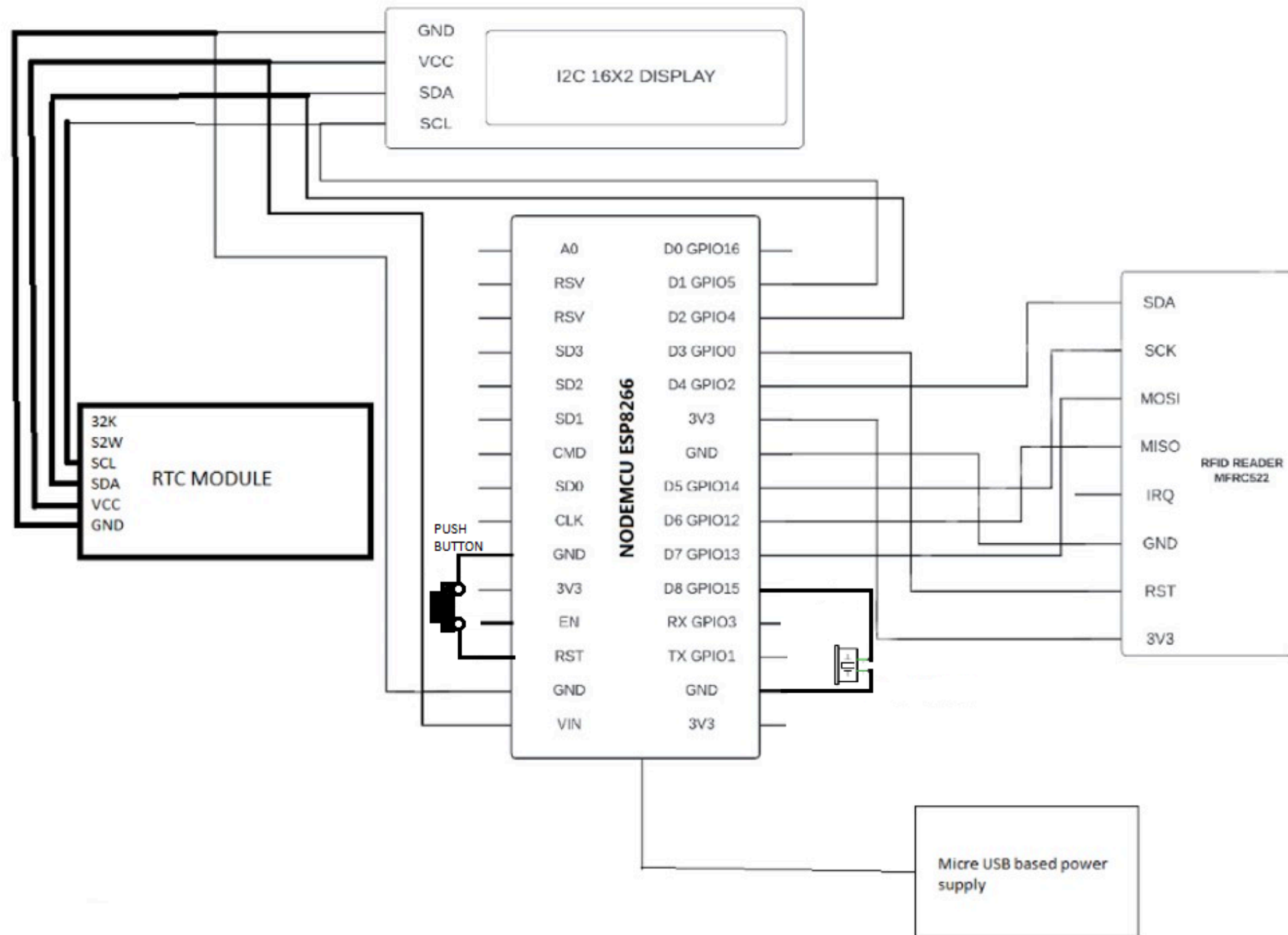
EXPLANATION OF SYSTEM

- **WHEN PURCHASING START, 'SET SWITCH' ON THE TROLLEY IS PRESSED,THE SYSTEM TURNS ON.**
- **EVERY PRODUCT HAS AN RFID TAG. THESE ID'S ARE SAVED IN THE MEMORY OF THE SYSTEM.**
- **WHEN A PRODUCT IS DROPPED IN THE TROLLEY,THE RFID READER WILL READ THE TAG.**
- **THE INFORMATION OF THE PRODUCT WILL BE DISPLAYED ON THE LCD UNIT.**
- **THE PROCESS WILL CONTINUE UNTIL THE SWITCH FOR ENDING THE SHOPPING IS PRESSED.**
- **THE TOTAL BILL WILL BE DISPLAYED ON THE LCD.**
- **THE BILL WILL BE SENT TO THE MASTER COMPUTER ALONG WITH PAYMENT STATUS WHEN PAYMENT IS MADE.**

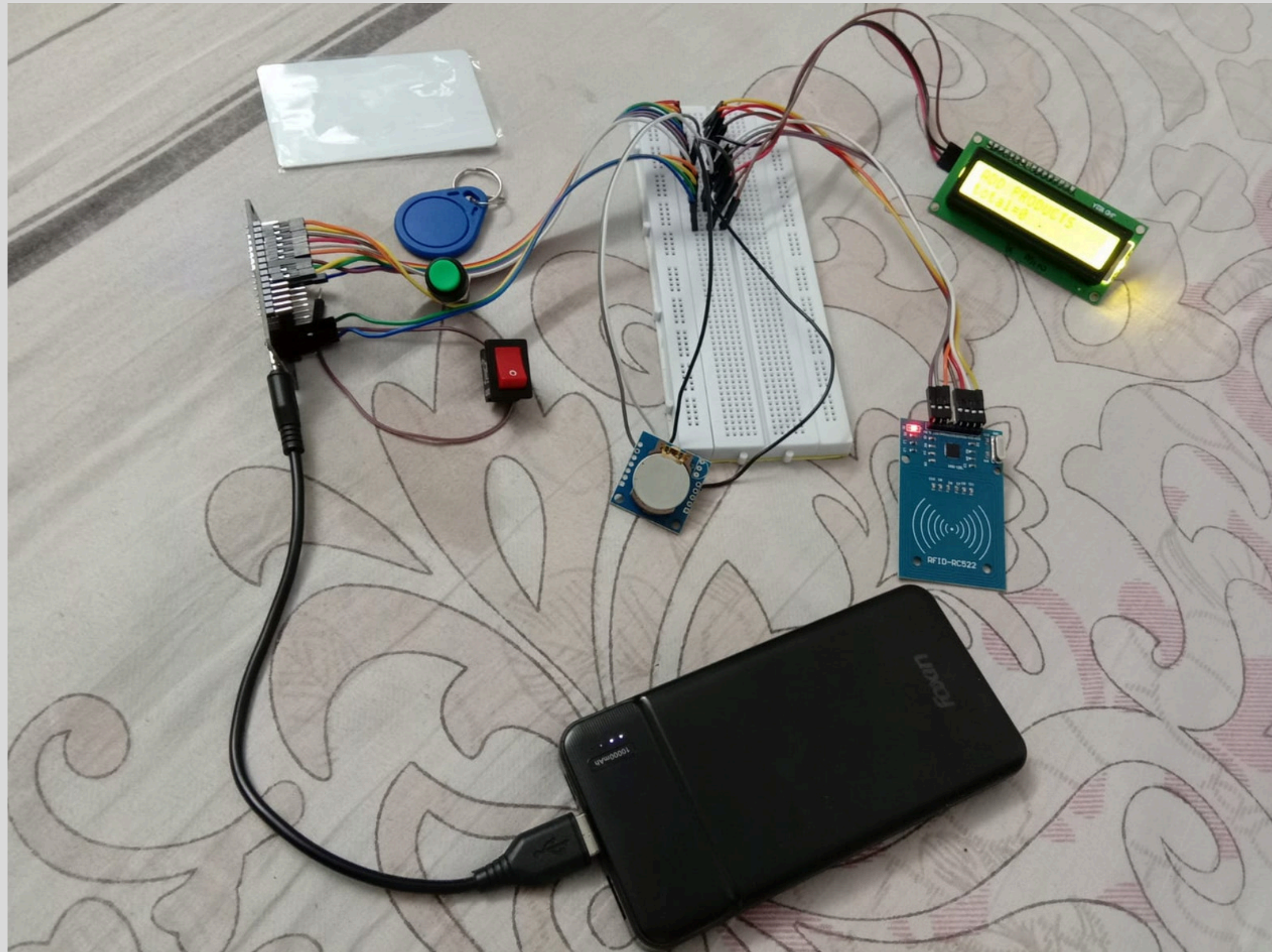
FLOW CHART



CIRCUIT DIAGRAM



CIRCUIT ON BREAD BOARD





EXPECTED OUTPUT

1. Bill calculation is done at the trolley itself.
2. Low chance of traffic & mismanagement.
3. Staff will be reduced as its automation is brought in place.
4. It is easy to use and is of low cost.
5. Increases the speed of billing by using RFID.

FURTHER IDEA

- Position of products can be displayed on the trolley so that customers can reach their required products by searching on the trolley itself.(we are not including it due to time limitaiions

REFERENCE

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Thank You...