



TOUCHSCREEN BASED ADVANCED MENU ORDERING SYSTEM

Soumiya S¹, Sounthararajan V², Sowmiya M³, Sivakumar C⁴

UG Student, ECE, Muthayammal Engineering College, Rasipuram, India¹

UG Student, ECE, Muthayammal Engineering College, Rasipuram, India²

UG Student, ECE, Muthayammal Engineering College, Rasipuram, India³

Associate Professor, ECE, Muthayammal Engineering College, Rasipuram, India⁴

Abstract: One may surmise the current century as the changing face in world innovation, which is additionally affecting an extraordinary arrangement to eatery proprietors arranged by the use of imaginative and tweaked advances. This Paper center around android based tablet and Smartphone applications, that are seriously less expensive and more client cordial rather than crude PDS-based requesting framework. At client end, it comprises of a Smartphone or tablet having menu subtleties. A typical Wi-Fi associates both kitchen show and the client end tablet, client arranges straightforwardly reaches to kitchen end module. This interface plan improves proficiency of eateries and furthermore significantly save time and killing human blunders and furthermore works with client criticisms, with the input of the client; proprietor can improve the nature of administration. In remote menu card client can make installment without remaining in the line. Utilizing this component client can take care of the bill via seating on the saved table.

Keywords: Touchscreen, Restaurants, Wi-Fi modules, Smartphones, etc.

I. INTRODUCTION

In a customary way for food outlets, client need to do visit various outlets to put orders. Customer should be on a line their chance to put in the request. Accepting that server is taking request from just one brand then it is groups of having human blunders during surge in top hours. To defeat above issues we are utilizing Tablets as menu for submitting the requests remotely. Nowadays individuals are living in quick world and don't have a lot of persistence. All is required right away at a tick that can be from anyplace. This has made far off capacity as a basic necessity from disseminated registering. The framework utilized here is a Wi-Fi stockpiling gadget which gives distant capacity or distributed storage which is joined to network. Wi-Fi stockpiling gadgets help to make an individual cloud for example it gives an own distributed storage, which are safer contrasted with public cloud.

II. EXISTING SYSTEM

Robotization has acquired significance in each field of human existence. However, there are still a few fields where more customary techniques are being utilized. One such field is the requesting framework in cafés. By and large, in eateries menu requesting framework will be accessible in paper design from that the client needs to choose the menu things and afterward the request is given over to server who takes the relating request, which is an exceptionally tedious interaction. Beginning from when it was understood that accommodation, administration and show significantly affect eatery deals, numerous new requesting and serving plan has been proposed up till now. These menu requesting strategies are as per the following

- Paper based menu card
- Self administration food requesting KIOSK innovation
- QORDER
- Computerized requesting framework

III. PROPOSED SYSTEM

The proposed technique predominantly points in planning and executing totally mechanized menu framework in eateries to give an easy to use requesting climate. A touch screen alongside TFT will be set on each table. Presently the TFT will go about as a menu card showing every one of the things accessible in the café.



Hardware Requirements:

- Node MCU
- Arduino
- TFT Display
- Power Supply

Software Requirements:

- Arduino IDE
- SQLITE Database
- IOT Web Server

Node MCU

The ESP8266 is a low-cost Wi-Fi microchip, with a full TCP/IP stack and microcontroller ability, created by Espressif Systems in Shanghai, China. The ESP8285 is an ESP8266 with 1 MiB of inherent glimmer, permitting the structure of single-chip gadgets equipped for interfacing with Wi-Fi. These microcontroller chips have been prevailing by the ESP32 group of gadgets, including the pin-viable ESP32-C3.

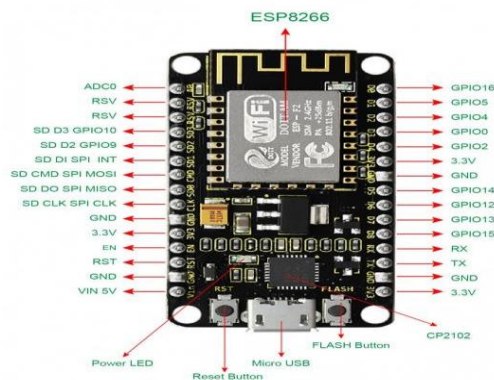


Figure 1: Block diagram of Node MCU

TFT Display

A fluid gem show (TFT) is a level board show, electronic visual presentation, or video show that utilizes the light balancing properties of fluid precious stones. Fluid precious stones don't emanate light straightforwardly. TFTs are accessible to show self-assertive pictures (as in a broadly useful PC show) or fixed pictures which can be shown or covered up, like preset words, digits, and 7-portion shows as in an advanced clock. They utilize a similar essential innovation, then again, actually subjective pictures are comprised of an enormous number of little pixels, while different showcases have bigger components.



Figure 2 : Thin Film Transistor

Power Supply

SMPS

An exchanged mode power supply (exchanging mode power supply, switch-mode power supply, exchanged force supply, SMPS, or switcher) is an electronic force supply that consolidates a changing controller to change over electrical force effectively. Like other force supplies, a SMPS moves power from a DC or AC source (regularly mains power) to DC loads, like a PC, while changing over voltage and current qualities.



Figure 3 : SMPS

Software Requirements

Arduino IDE

The Arduino Integrated Development Environment - or Arduino Software (IDE) - contains a content manager for composing code, a message region, a book console, a toolbar with catches for regular capacities and a progression of menus. It interfaces with the Arduino and Genuino equipment to transfer programs and speak with them. The control center showcases text yield by the Arduino Software (IDE), including total mistake messages and other data. The base right-hand corner of the window shows the arranged board and sequential port. The toolbar catches permit you to check and transfer programs, make, open, and save draws, and open the chronic screen.

SQLITE Database

SQLite is a social data set administration framework (RDBMS) contained in a C library. As opposed to numerous other data set administration frameworks, SQLite is anything but a customer worker information base motor. Maybe, it is inserted into the end program. SQLite is ACID-consistent and executes the vast majority of the SQL standard, by and large after PostgreSQL linguistic structure. Nonetheless, SQLite utilizes a progressively and feebly composed SQL language structure that doesn't ensure the space honesty.

IOT Web Server

In registering, a worker is a piece of PC equipment or programming (PC program) that gives usefulness to different projects or gadgets, called "customers". This engineering is known as the customer worker model. Workers can give different functionalities, regularly called "administrations", like dividing information or assets between numerous customers, or performing calculation for a customer.

IV.WORKING OPERATION

As per his prerequisite the client will choose menu thing and amount. The touch screens are by and large the most moderate. transmitter part of the framework Consists of atmega16 miniature regulator. The yield module is a RX transmission 3 module which makes the correspondence between framework at table and framework at cooking office. The microcontroller which is at the beneficiary area takes the request which is shown on TFT alongside client table number. Presently when 4 the client requests for the charge, it is shown on the TFT screen at the client side.

At the point when a position is estimated on a 4-wire contact screen, voltage is applied across the screen in the Y bearing, and a touch presses the layers together, where a voltage can be perused from one of the X anodes. The contact made because of the touch makes a voltage divider by then, so the Y facilitate can be resolved, the interaction at that point rehashes with the X bearing being driven, and a perusing is taken from one of the Y anodes. A touch-screen regulator is just an ADC that has inherent changes to control which terminals are driven and which cathodes are utilized as the contribution to the ADC. A customary method of requesting food i.e utilizing paper and pen was at that point talked about. Such frameworks may prompt manual mix-ups or blunders particularly during surge time.

Block Diagram :

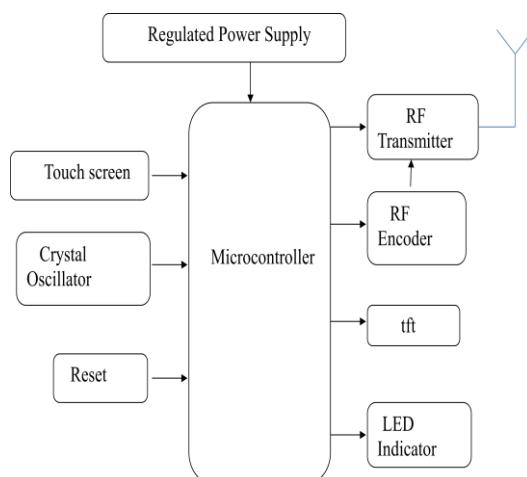


Figure 4 : Transmitter

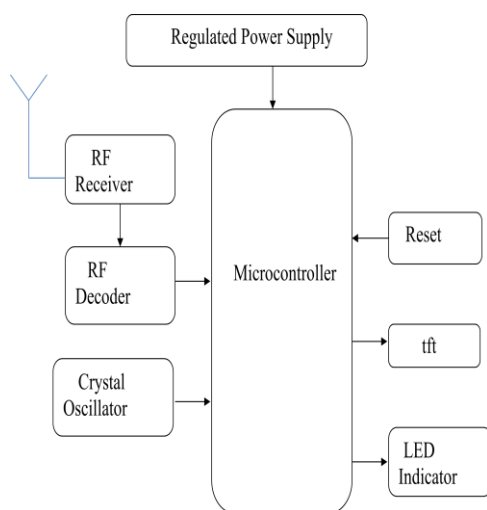


Figure 5 : Receiver

It is hard to keep up the records with the receipts in the past an ideal opportunity for what's to come. Our primary target to make this framework is to defeated from all old manual framework these issues were have a few limits too It utilize the Wi-Fi stockpiling gadget for an organization connected capacity. Need an App for the remote framework which can take the information from NAS for client's to set up the request. Need an App for the Desktop for the holder to make refreshing away gadget and to see subtleties.

V. RESULT

It helps for simple document sharing and sight and sound according to our comfort from our telephones or PCs. An admittance to authorization from distributed storage online assistance or individual distributed storage based organization is just required here. Organization connected capacity enjoys various benefits, for example, they are generally less expensive as there is no month to month charges to be paid and it is additionally adaptable for expanded information size. A simple evaluation about our information area is additionally an additional benefit of NAS. All above focuses drives us to the presentation of a product application into a Smartphone or tablet comprising of menu subtleties which can successfully conquer every one of the referenced limits.

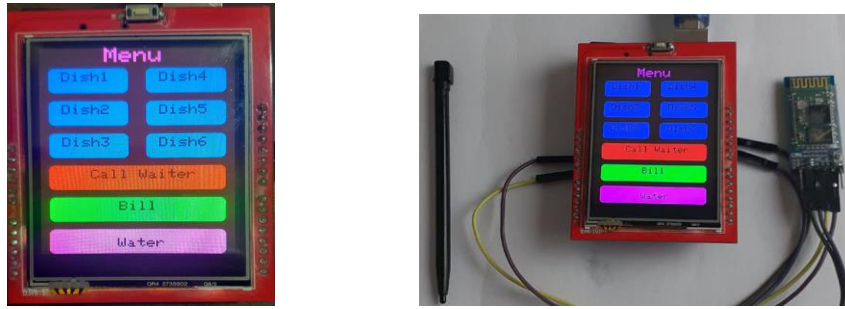


Figure 6 : Initial screen in the customer’s table



Figure 7: Order info on Kitchen section



Figure 8 : Order info on Billing Section

VI. CONCLUSION

Remote menu card framework is an individual computerized help (PDS) for the productive working of cafés. PDA is fundamentally remote based framework where client can provide request from the tablets through an application from saved table. Right off the bat, client needs to enlist himself/herself through the application . Client can see the menu on the tablet with the pictures and select the dishes. All chose dishes will get put away in the truck. From card client can give the adaptation for dishes. Requested food will straightforwardly go to the kitchen end, where the proprietor Can see the client arrange and continue further. Subsequent to finishing the feast, client can offer criticism to the eatery. Client can give audits from all parts of café like administrations, food and vibe. It is not difficult to utilize and easy to understand and alluring interface permit clients to share their experience.

REFERENCES

1. Kunal Gupta,Stuti Sexena “design and implementation of wireless menu card” 5th International Conference–Confluence The Next Generation Information Technology Summit (Confluence) in 2014.
2. Tan-Hsu Tan, Ching-Su Chang, and Yung-Fu Chen,“ Developing an Intelligent e-Restaurant With a Menu Recommender for Customer-Centric Service ”, IEEE Transactions on systems, man, and cybernetic, Vol. 42, No. 5, September 2012.
3. N. M. Z. Hashim “Smart Ordering System via Bluetooth” in International Journal of Computer Trends and Technology (IJCTT) –volume 4 Issue 7–Month 2013.