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Smart Restaurant Menu Ordering with Auto Serve System

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ABSTRACT: Now days Automation system is Everywhere to use its Home, Workplace, Large Industry (Ex: Vehicle Manufacturing) all are equipped with Automatic system. And also Restaurants are adopting recent trend automation and are installing robots to deliver our desired food and desired table. In this Concept We are implement all the Hotels/Restaurant tables Using Digital menu card facility implement is important, Why because customer can easily select the food. Robots purpose on this concept to serve the customer on the desired table. In this Project we are using arduino, RF Transmitter and Receiver, TFT touch display, RFID, LCD Display.

KEYWORDS: RF transmitter and receiver, Arduino, TFT Touch Display, RFID Reader

I. INTRODUCTION

The adoption of digital technology has led to automation in the hospitality industry. Business in hospitality industry such as restaurants can be improved with the help of digital systems. The competition in restaurant business have increased with advancements in food ordering techniques. Restaurant is a place where people come, sit and eat meals served. traditional restaurant system, orders are taken by a waiter and they bring the food when it is ready. After eating the food, customers will pay the bill. order on table, reminding dishes of customer. Therefore, a serving robot is proposed.

II. OBJECTIVES

This system large numbers of manpower to handle customer reservation, inquiry about them, ordering food, placing. The traditional food ordering system is entirely a manual process which involves waiters, pen and paper. The customer has to wait for waiters to take the order. The waiter notes down the orders from customers, take these orders to kitchen department. But our target is Fully automatic process to Take the orders from customer to serve the food items all are Fully automatic Concept. In this advantage no one wait for waiters.

III. LITERATURE REVIEW

A literature survey is done to know the existing techniques their significance and limitations. It also includes various proposed technique and their advantages.

PDA METHOD PDA-Portable Digital Assistant. PDA is small and portable device. In the PDA based system, the small portable device is given to the customer for ordering the food item. When order completes, these PDAs are to be collected by the waiters to be used by other customers. With wireless technology, the communication between the server and PDA is feasible. Even though the PDA based system provided a better option to conventional food ordering system they possess some limitations: A number of PDAs are to be prepared to serve the number of customers during peak hours. Thus increasing the restaurant expenditures. PDAs do not provide provision to order from workplace. Thus the customer has to be physically present in restaurant to place order. It lacks real time feedback between restaurant owner and customers. The user interface consist only textual information. UI has become unattractive and uninformative due to lack of images. **B.AUTONOMOUS ROBOT** There are some basic requirements in creating an autonomous mobile robot: openness, abstraction and modularity. These requirements are crucial so that a new function.



BOOK SEARCHING ROBOT

This robot is an application of the line following robot used in the library inventory management system (LIMS). A LIMS is created in order to search the books required from the rack, through the reading of barcode. robot inclusive of EEPROM, which is used as input and output device for input author name, title and barcode. The result of searching will be shown on LCD display. The outcome of this robot is that it is able to search the availability of the book in the rack specified. However, the robot manages to search books at the bottom row of the rack only .

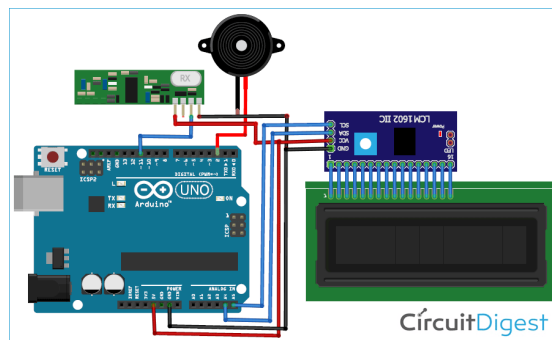


IV. PROPOSED SYSTEM

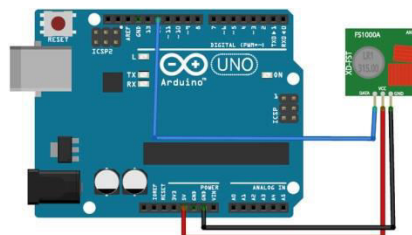
system large numbers of manpower to handle customer reservation, inquiry about them, ordering food, placing. The traditional food ordering system is entirely a manual process which involves waiters, pen and paper. The customer has to wait for waiters to take the order. This concept is Fully Automatic Process to Serve the customer of the Hotels/Restaurant.

V. BLOCK DIAGRAM

Receiver Section

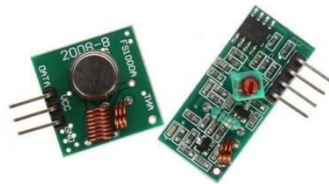


Transmitter Section



RF TX RX

RF modules are widely used for wireless data transfers and remote control applications. These days, cost of RF modules are very low and are compact in size. Most of these RF modules are operating around 433MHz. Amplitude Shift Keying (ASK) or Frequency Shift Keying (FSK) are mainly used for wireless data transfers.



TFT Touch Display

2.4" TFT LCD Touch shield is a multicolored Arduino UNO/ Mega compatible TFT display that comes with touch-screen and SD card socket as well. This TFT display module has a bright backlight and a colorful 240X320 pixels display. It also consists of individual RGB pixel control that gives it a much better resolution than the black and white displays.

VI. CONCLUSION

There is great advancement in technology due to its features like low cost and easy to use. This technology allows us a faster and more convenient access to the world. The Restaurant automation is a revolutionary concept & is sure to take people by surprise. This system is convenient, effective and easy thereby improving the performance of restaurant's staff. It will also provide quality of service and customer satisfaction.

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