

**THE DEVELOPMENT OF MENU ORDERING SYSTEM
USING RF MODULE**

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

In the name of ALLAH, the Most Gracious and the Most Merciful

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May Allah Bless Us.

ABSTRACT

This thesis reports on the development of low-cost menu ordering system using portable device with wireless via RF communication. A menu ordering system enables a customer to use a terminal device to order food, but can respond rapidly to changes and additions to the menu. The system may be used by a restaurant to facilitate ordering menu items by a customer to increase the effectiveness and efficiency to help both parties. When this system starts up, it transmits an operating program from main management equipment to each of a number of order-taking terminal devices. This project is to create a portable device with wireless connection between waiter and the kitchen using an RF Module with a microcontroller. The front end system with screen is for order takers that link to kitchen display and integrated with back end system that manages every menu system in a restaurant by handling orders, tracking payments, and alerting waiters when customers need assistance. The goal is to provide a reliable system that improves accuracy and efficiency of menu ordering.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

At least 5 out of 7 people on United Kingdom had bad experience when ordering food at restaurant. These bad experiences occur when the order taken was not prepared, wrong menu for wrong table and human error. [1] These major problems will easily affect the good service that some restaurant is trying to promote [2].

There is a need for a new system in ordering service to increase the effectiveness and efficiency to help both parties. This project consists of two tasks to complete the system which are software and hardware.

A suggestion of solving is to create a portable device with wireless connection between waiter and kitchen. The main issue is to determine the required transmitter power to cover 20' x 70' area which is similar to typical size of a restaurant. Size of the prototype is also discussed, such as in determining what suitable size for the system will it required for demo purpose.

A suggestion of solving is to create a portable device with wireless connection between waiter and kitchen

1.2 Overview and Problem Description

Below are some of restaurants owners' problems:

- 1) Mistaken orders due to poor handwriting by waiters.
- 2) A system to covers cash register
- 3) To updates on table and order status.
- 4) To automatically generates bills and receipts