PARKING MANAGEMENT SYSTEM

MUHAMAD ARIF BIN ASHARI
PUTRA AMIR FIRDAUS BIN ROSLAN

FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
MALAYSIA

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ABSTRACT

The purpose of our project is to ease the consumer to know whether the parking slot is filled or empty. We planned to have an indicator and display for people that easily can be seen from far. So that, they do not have to drive/come near to the parking slot to check whether it is filled or not.

The output of this project is when the car is filled in the parking slot, the red LED is on and the LCD screen will display "parking slot: 0". If the parking slot is empty, the green LED will on and the LCD screen will display "parking slot: 1".

The output of the project is come from the input of light sensor. The light sensor will detect the presence of light whether when the parking slot is empty or not.

CHAPTER 1

INTRODUCTION

1.1 Background

The objective of doing this project is to improve the nowadays parking management system. This system will detect the parking slot whether it is empty or not. This circuit will place at the parking slot and shows indicator to people. This parking system is to avoid from wasting time to go and check for free slot rather than just take a peak to see the indicator from far.

This parking management system will use Arduino UNO, LCD screen, resistors, SN-LIGHT-MOD (light detector), variable resistor and LEDs. Arduino UNO is the most important component in this project. Arduino UNO stores program that needed in this project which has been constructed. LCD screen was used to display the amount of empty slots available. SN-LIGHT-MOD was used to detect the present of light and also act as a switch. Variable resistor was used as a contrast adjuster in this project. And lastly, LED was used as an indicator to show that the parking slot was empty or filled with vehicle.

1.2 Problem Statement

People use to drive near the parking slot to see whether the slot was filled or not. Sometimes, when the parking area was fully filled with vehicles, its actually waste our time and fuel. This will lead to the uses of fuel if we look in the larger scope if all people make that same thing everyday. To avoid this kind of problems, the idea to create this project is important to them and it may ease them.