

AUTOMATIC CAR PARKING SYSTEM

ABSTRACT

Automatic car parking system is a kind of system in which the parking system can be implemented using IR. This system allows user to park his/her vehicle. Now days in many multiplex systems, there is a severe problem for car parking system. Moreover there is a lot of men labor involved for this process for which there is lot of investment. In this project, we are counting the number of cars entering into a parking lot. IR sensors are used to detect whether it is car or any other four wheeler vehicle or two wheeler vehicle. It means that, only cars will be allowed to park in the parking lot excluding the other four wheeler vehicle like Truck, Tractor, Buses, etc. So the project objective is to develop a system which will count the number of cars entering into the parking lot. The project involves a system including infrared transmitter and receiver at entry level and at a exit level respectively, and a LCD display outside the car parking gate. Use of automated system for car parking monitoring will reduce the human efforts. Display unit is installed on entrance of parking lot which will show LEDs for all Parking slot.

The objective of this project is to design and develop the Microcontroller based automatic car parking system. We are going to use Infra Red transmitters and Receivers for entry & exit level of car parking system. We have chosen IR module instead of RF module because we want a receiver having line of sight communication with the transmitter. But RF does not require line of sight communication and in case of LDR, there is scope for false triggering due to sunlight or headlight of car. IR technology can facilitate the effective way of communicates to count the number of car entering into a parking lot.

Block Diagram:

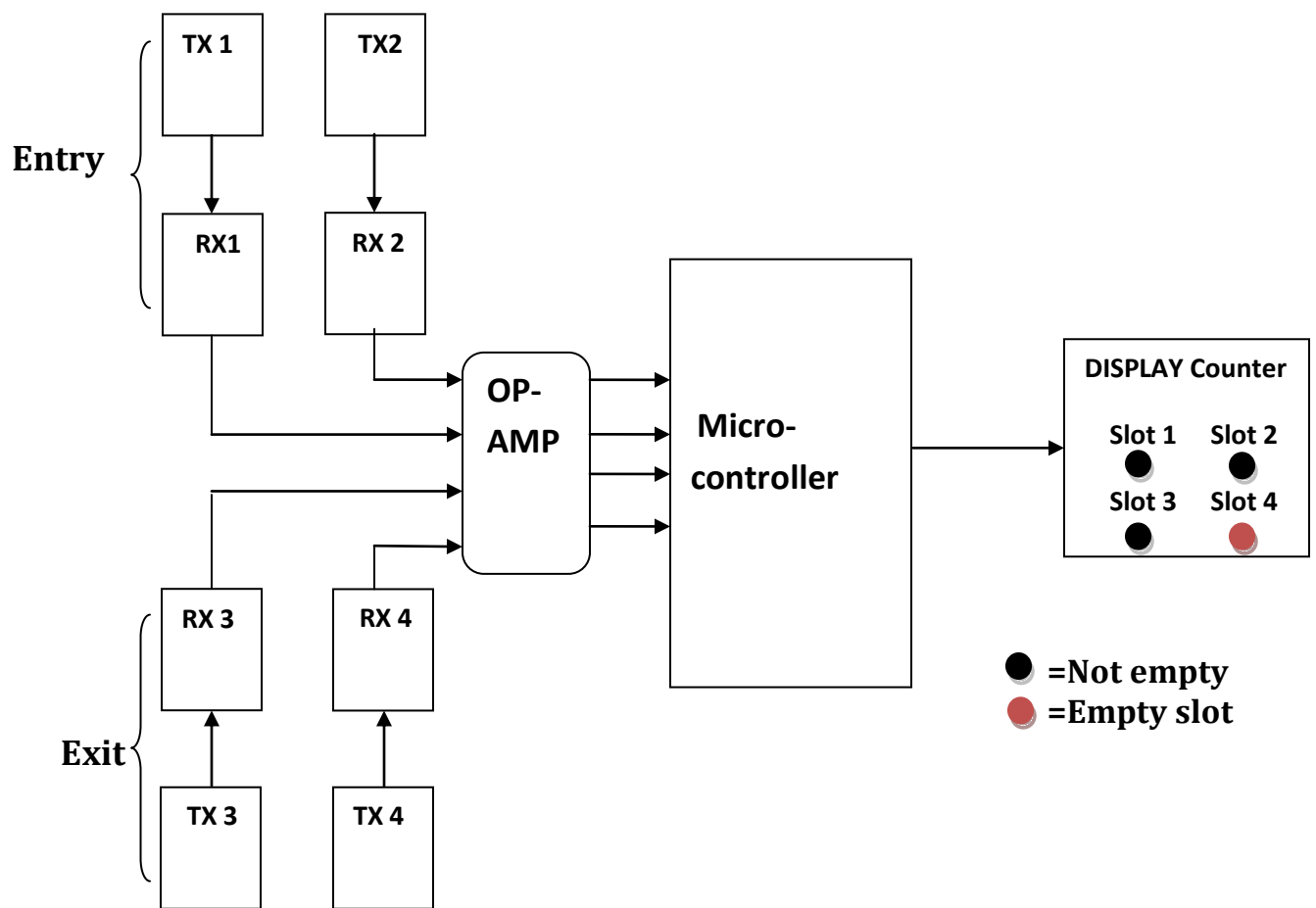


Fig: Block Diagram for Automatic car parking system using Microcontroller