ABSTRACT

Most of parking systems that exists today don't present any parking location data about empty area. Therefore, the cars that enter to the parking area must search the available area to park by themselves. This thing causes cars line occurred. Furthermore, the cars must go around finding the available area. Because of that, a parking system which is able to present the available area to park is needed.

This final project specifically discuss about design and realization of parking system monitoring prototype based on microcontroller ATMega8535 with infrared sensor. The realization of this final project consists of two part; they are hardware and software. Hardware in question is the hardware on the parking block side that detect if there car enter to the parking area or exit from the parking area. Beside that, the software is made for hardware to PC server connection and also for system application on the operator side.

System experiments are done start from power supply experiment, infrared sensor experiment, microcontroller (slave) experiment, microcontroller (master) experiment, and application on PC experiment. The result of those experiments shows that system goes well. But error still occurred which is caused by the delay setting that's not still appropriate with the real velocity of a car.

Keyword: Parking system, Microcontroller, Infrared