

# Automatic Car Parking Indicator System Using Arduino

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**Abstract:** The aim of this paper is to provide a simple automatic car parking allocation system with basic components like microcontroller that provides solution to the problems in car parking allocation. Parking allocations provided in shopping complexes, malls, multi-store buildings etc usually have persons allocated to supervise manually the traffic and to allocate spaces available for parking, directing vehicles to be parked without any disturbances making the process more complex. A simple parking automation system with IR sensors provided at the parking space to detect the presence of vehicle parked, LED notification board to show specific empty parking slots and a display to direct individuals can avoid trafficking at the gateways of parking slots and helps them to park their vehicles easily. Therefore, the proposed research work designs and implements a prototype system model, which will regulate trafficking in parking garages along with providing information to the drivers about the availability of spaces. Also, a gate has been provided with servomotor whose main function is to allow and restrict vehicles inside and outside the parking garages by opening and closing the gate with respect to the information obtained from the IR sensors in the entrance and based on the information from the IR sensors in the parking slots.

**Keywords:** (Infrared) IR Sensor, Microcontroller, LED's, Servo motor