

# **Automated Car Parking System Project**

## **Introduction**

One of the major issues faced by people in densely populated cities is the congestion caused due to a huge number of cars. Not only is this troublesome for the people driving the cars, it's equally frustrating for those looking for a spot to park, especially if they have busy work schedules and do not want any delays in their routines.

Many a times, people looking desperately for a parking spot enter a parking space that has already been filled up to capacity, wasting their time just going around looking for an empty space. Also, sometimes people do find an empty slot, however, only after spending a lot of time searching, since they never had any idea where it was going to be.

We have come up with this idea of building a parking system that tells the user whether the parking space has any available spot for them to park their car, and if so, also tell them exactly where they could find it, something that they rightfully deserve to know even before entering the parking space. This would allow them to save a lot of time that is otherwise wasted in roaming around the space and this would therefore create an efficient and convenient parking system.

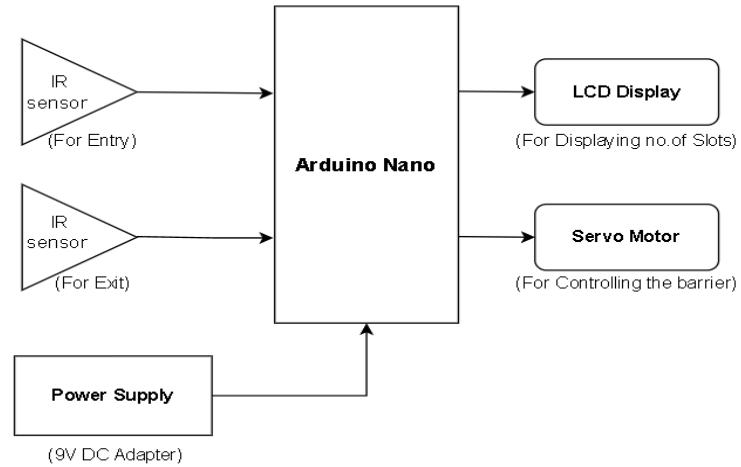
## **Project Description**

The aim of our project is to create a parking system where barriers are automated for entry and exit of cars and the number of available slots is visible to the users in real time. Cars are detected through Infrared sensors at entry or exit and the barrier is controlled with a motor. The number of slots in the parking is continuously updated and displayed on an LCD.

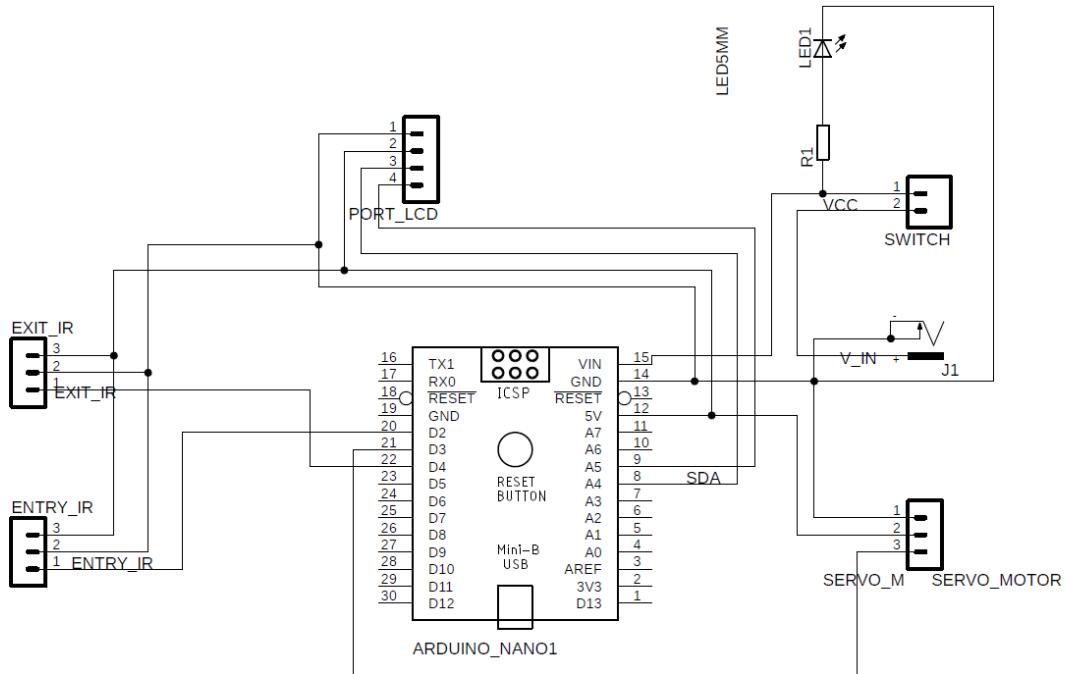
With this idea, we would be able to inform users about the slot availability and avoid wastage of time in finding a parking slot.

## Block Diagram

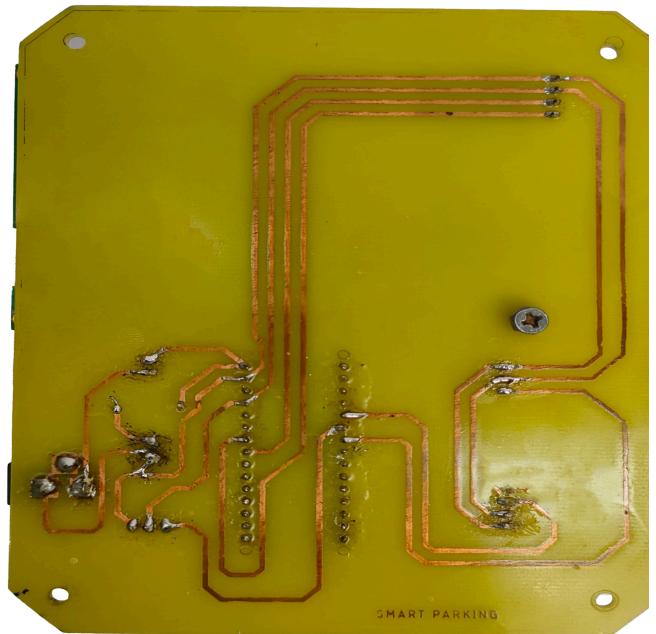
The given below figure shows the major blocks used in this project.



## Circuit Diagram



## Fabricated PCB



## Car Parking System

