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| Smart Parking Car |
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Smart Parking Car

Prof Dr. Ragia Badr

**Abstract:**

This project introduces a smart car that parks automatically in a garage which will be prepared with some leds and a microcontroller circuit .this project will solve many problems that happens inside garages like accidents and crimes of theft; also it will save a big area which is the very important thing especially in Egypt.

The user will choose its place at the entrance of the garage; then its car will go to park automatically and when he wants to take the car, he will press the switch of the place he chose it at the entrance and then the car will leave the garage automatically.

**CONCLUSION:**

The project consists of two main parts; the first part is the garage system and the second part is the car system. In this chapter the overall work of the project will be explained.

when the user comes to the garage to park his car, he will press one of the four switches at the entrance of the garage, then the led that refers to the chosen switch will be turned on and when the car enters the garage, it will follow the white line normally till one of the two sensors of the middle board that refers to either left or right direction sense the led on the floor of the garage, then the car will turn to the place that its led is on and parks in it.

The user should see LEDS at the entrance of the garage to know the free spaces and he should notice also the LCD at the entrance to know whether there is another car is entering the garage at that time or not.

When the user wants to take his car from the garage; he will press the switch that refers to the chosen place at the exit end of the garage; then the led on the garage that refers to that place will be turned on and as this led must faces the back sensor of the middle board in the car; so when this led is being on, the back sensor will be on and it will enable the backward sensors and disable the forward sensors, so the car will move in the back direction and goes out from the garage.

When the car enters to one of the places which in a certain direction, it will store this direction and when it moves in the back direction, it will turn to the reverse direction.