

Abstract

Objective: Facilitate the flow of vehicles in parking lots with the help of ESP 32, which will give us a better organization and will help us to manage more effectively the parking lot, **Methodology:** Research, Design, Testing, Detailing and Implementation, **Contribution:** Optimize resources in the parking lot selection process for vehicles in a high-traffic location.

Introduction

Thanks to advances in technology and telecommunications, new possibilities have been created to facilitate and streamline the needs of the population. In this particular case, we will talk about establishments that operate automatically by applying knowledge in these branches of research. For this, a problem was observed where these two branches can be applied in a way that can be coupled to the needs of the environment in which it is to be applied, which is an automatic parking lot, since some inconveniences were found when looking for a place in such establishments.

Materials and methods



Figure 1 Project Development

Results

The results based on the simulations were satisfactory, since the requirements that were initially expected to be found were met. As shown below, an ultrasonic sensor was tested virtually and with it was able to operate the pen which fulfills the function of entry and exit of the parking lot. Likewise the simulation of some parking places which meet the prototype of what in the future will be sought to do on a large scale was carried out.

Conclusions

In the development of this project as well as in the research stage we observed the impact of technologies in our usual environment, as a way to implement these technologies in our daily life, this project is proposed to change the traditional way of operating parking lots to streamline vehicular traffic, the time to find a parking space and the total parking space, thus having clear from the entrance all the necessary information for your accommodation.

Future of research

- Design, development and implementation of the prototype for a company in the region.
- We will obtain a code that works efficiently and we will implement it in a parking lot to observe its operation and refine some details as well as solve the problems that arise.

Acknowledgments

We thank our advisors, MANCILLA-GARCIA, Victor Hugo and HERNANDEZ-RAMIREZ, Veronica who were there from the beginning, giving their time and knowledge, not to mention the support received by our colleagues GARCIA-MORENO, Ana Lilia and ROJAS-PEREZ, Alejandro.

Without leaving aside our families and teachers for all the knowledge acquired during our professional development stage, which was of great help for the implementation and development of CARPORKEY.

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