

A Study on Automatic Pneumatic Bumper Car

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ABSTRACT

The innovation of pneumatics assumes a significant job in the field of computerization and current machine shops. The point is to structure and build up a control framework based smart electronically controlled car guard initiation and programmed stopping mechanism is called AUTOMATIC PNEUMATIC BUMPER CAR. There is any obstruction closer to the vehicle (inside 3-4 feet), the control signal is given to the guard actuation framework and furthermore pneumatic slowing mechanism simultaneously. This vehicle speed is detected by the vicinity sensor and this sign is given to the control unit and pneumatic guard and slowing down enactment framework.

1. Introduction

The undertaking comprises of ultrasonic sensor, Control Unit, Pneumatic guard framework. The ultrasonic sensor detects the snag. In the event that there is any obstruction closer to the vehicle (inside 3-4 feet), the control signal is offered to the guard and reprieve initiation framework. This guard initiation framework is actuated when the vehicle speed over 30-40 km for each hour. The speed is detected by the nearness sensor and this sign is move to the control unit and pneumatic guard initiation framework. In this undertaking we have utilized GPS , GSM , Ultrasonic sensor. GSM is utilized for send and gets messages in the event that anything occurs, GPS is utilized for sending the area to the opposite end, area is send through message and in area scope and longitude of certain spot is there which is followed precisely by the gadget.

2. Literature Survey

In this framework controlling is finished by IR sensor with the assistance of IR sensor pneumatic guard incite brake will applied. At the point when the deterrent come before sensor the IR sensor sense and it will be impel the solenoid valve which having a two yield and one information. Info is associated from blower and the yield is associated with the pneumatic chamber by which the guard will go further and returns by the compacted gas. At the point when the hindrance comes before vehicle the IR sensor unit will order to the control unit and control unit will cut the force off engine by this revolution of wheel diminishes and brake will applied. In our venture we beat the mishap issue by methods for giving the sensor game plan in guard. The point is to structure and build up a control framework based a shrewd electronically controlled automotive bumper activation system is called automatic pneumatic bumper. This framework is comprising of IR transmitter and recipient circuit, control unit, pneumatic guard framework. The IR sensor is utilized to detect the obstruction.

3. Objective of our Project

It is the venture which has been completely prepared and intended for auto vehicles. In standard vehicles there are different component worked for the slowing mechanism like utilization of water driven, pneumatic, or mechanical framework. In any case, all these slowing down instruments get the info signal straightforwardly from the driver by use of power on brake pedal. Therefore, slowing down of vehicles is absolutely manual worked. Thus, if the driver neglects to see the obstruction before his driving vehicle or neglects to apply legitimate slowing down power on the brake pedal, he may lose the control of his vehicle, prompting mishap.

4. Comparative Study

While contemplating the other venture we found that the current framework in vehicles are very little safe than our undertaking which gives the programmed guard stopping mechanism..

4.1 Existing System

As the accessible assets to run these vehicles like nature of streets, and inaccessibility of new advancements in vehicles are foundations for mishaps. The quantity of people groups which are dead during the vehicle mishaps is likewise extremely enormous when contrasted with different reasons for death. In spite of the fact that there are different reasons for the mishaps however legitimate innovation of stopping mechanism and innovation to decrease the harm during mishap essentially impact on the mishap rates. Additionally here and there numerous individuals don't get help right away

4.2 Existing System Disadvantages

In the current framework there isn't a lot of security for the traveler just as the driver who is driving the vehicle.

4.3 Proposed Work

The point is to plan and build up a control framework based insightful electronically controlled car guard enactment and programmed stopping mechanism is called "Automatic pneumatic bumper". It is the venture which has been completely prepared and intended for auto vehicles. In normal vehicles there are different instrument worked for the stopping mechanism like utilization of water powered, pneumatic, or mechanical framework. Be that as it may, all these slowing down instruments get the information signal straightforwardly from the driver by use of power on brake pedal. In this manner, slowing down of vehicles is absolutely manual worked. Along these lines, if the driver neglects to see the snag before his driving vehicle or neglects to apply legitimate slowing down power on the brake pedal, he may lose the control of his vehicle, prompting mishap.

5. Conclusions

From the above we can reason this proposed venture is a successful secure, efficient and wellbeing framework. With the end goal that interruption driving is a significant supporter of mishap demise, in this manner by actualizing this framework we can diminish the nearby effect expected Accident. It can help and make vehicle more featural as in this day and age each of the an individual need in a vehicle are highlights and security. Thus, it can make a vehicle so protected that there is no peril to the lives of individuals. Its so natural to introduce and simple to utilize and its expense is low so there would be no distinction in the expense of the vehicle after or before introducing it. This framework can be utilized for acceptable wellbeing help.

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