

# Design and Fabrication of Seat Belt Assisted Hand Brake Lever System”

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**Abstract:** *Hand brake is one of the most important components in vehicles. In general, the hand brake is operated manually. In our the aim of our project is to make seat belt wearing compulsory for safety purposes. We achieve it using an IR sensor and relay. We applied the brake using one solenoid valve. The seat belt is activated using the solenoid valve When the car engine gets started our solenoid gets activated and the brake will apply on the tires then whenever we don't put a seat belt on this solenoid valve doesn't get its original position. In this project, we are using Electromechanical parts like Relays, IR sensors, Solenoid valves, and disc Brake plates. With help of this, We are making a Design and Fabrication of a Seat belt Assisted Hand brake lever by using Catia software. This project is about Hand brake disengage is not happen until and unless the driver fastens the seat belt and due to this car will not run. It makes divers automatically Habitual to using the Seat belt of the car. Due to this habit, the number of accidents numbers will decrease or injuries of drivers may decrease.*

**Keywords:** Hand brake

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