Title: Design and Implementation of an Automatic Center Stand for Bike

Abstract:

This project aims to develop an automatic center stand system for motorcycles to enhance convenience and safety during parking. The system integrates various components, including a gear motor, motor driver, Arduino Uno controller, batteries, switch, key set, side stand, and stand frame. The gear motor provides the necessary torque to lift and lower the center stand, controlled by the Arduino Uno microcontroller. The motor driver facilitates the communication between the Arduino and the gear motor, ensuring precise movement. A battery system powers the entire setup, while a switch and key set allow for manual control and security features. The side stand and stand frame provide the structural support necessary for stable operation. Through this integration, the automatic center stand system offers motorcyclists a convenient and efficient solution for parking their vehicles.

Components:

Gear motor

Motor driver

Arduino Uno controller

Batteries

Switch

Key set

Side Stand

Stand Frame