Abstract

The Anti-Sleep Alarm System using IR (Infrared) Sensor is an innovative project designed to prevent accidents caused by drowsiness while driving or operating machinery. This system detects the driver's drowsiness by monitoring their eye movements using IR sensors and alerts them when signs of drowsiness are detected, reducing the risk of accidents due to fatigue.

Introduction

Drowsiness while driving is a significant cause of accidents worldwide. To address this issue, an Anti-Sleep Alarm System using IR Sensors has been developed. This system aims to detect signs of drowsiness by tracking the driver's eye movements, specifically by analyzing the patterns of IR light reflection and interruption caused by eyelid movements.

Objectives

- The primary objectives of this project include:
- Developing a reliable system to detect drowsiness based on IR sensor technology.
- Creating an alarm mechanism to alert the driver in real-time when signs of drowsiness are detected.
- Enhancing road safety by reducing accidents caused by driver fatigue.
- We have added one more feature to stop the wheel if drowsiness detected

Components Used

The components used in this project are:

1. IR Sensors (Emitter and Receiver)
2. Microcontroller (Arduino Uno)
3. Alarm/Buzzer
4. Power Supply
5. Connecting wires
6. 1-channel Relay module