TOP STUDENT PROJECTS

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PROJECT TITLE

BLIND CURVE DETECTION AND SPEED WARNING SYSTEM



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PROBLEM STATEMENT

Blind curves on roads create a serious safety risk because drivers cannot see approaching vehicles from the opposite direction. This lack of visibility can lead to delayed reactions, collisions, and accidents, especially when vehicles are traveling at high speeds. Existing warning systems are often expensive or unavailable in rural areas. Poor visibility due to weather conditions such as fog, rain, or darkness further increases the risk of accidents. Therefore, there is a need for a low-cost and reliable system that can detect approaching vehicles and provide timely warnings to drivers, improving road safety and reducing the risk of accidents at blind curves.

SOLUTION

The Blind Curve Vehicle Detection and Speed Warning System is a smart road safety solution designed to reduce accidents at blind curves where drivers have limited visibility of approaching vehicles. The system uses an Arduino Uno, IR sensors, RGB LED indicators, and a buzzer to detect vehicles and provide real-time warnings. Two IR sensors are placed at different points near the curve to monitor vehicle movement. When no vehicle is detected, the system displays a green signal, indicating that the road ahead is clear. When a vehicle is detected on the opposite side of the curve, a red signal is activated to alert approaching drivers



SCAN ME

Technology stacks:

C Program