

## VEHICLE OVER SPEED INDICATION USING ARDUINO

### **AIM:**

Design and development of vehicle over speed indication using Arduino.

### **PURPOSE:**

In modern transportation systems, ensuring vehicle safety is crucial, and managing speed is a key component of this. This project presents a solution for over-speed indication using an Arduino-based system. The proposed system utilizes an Arduino microcontroller interfaced with a speed sensor to monitor vehicle speed in real-time. When the vehicle's speed exceeds a predefined threshold, the system activates an alert mechanism to notify the driver, thereby promoting safer driving practices. The implementation involves integrating a speed sensor with the Arduino, programming the microcontroller to process the speed data, and showing speed on LCD display. The proposed project title is vehicle over speed indication using Arduino.

### **DESCRIPTION:**

Two IR sensors connected to Arduino through digital IO pins. These two sensors monitor speed of vehicle. One sensor detects entry of vehicle and other sensor for exit of vehicle.

### **WORKING:**

Here Arduino calculates vehicle speed based on time. Time is inverse proportional to speed while we calculate speed. When vehicle crossed first IR sensor then count will start until vehicle crosses second IR sensor. If count is less speed is high, if count is more speed is less. Buzzer will come when high speeds occur. This information always updated on LCD.

## TECHNICAL SPECIFICATIONS:

### HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
Buzzer	:	5V DC
IR sensor	:	Digital Type
Power Source	:	12v 2 amp Adaptor

### SOFTWARE:

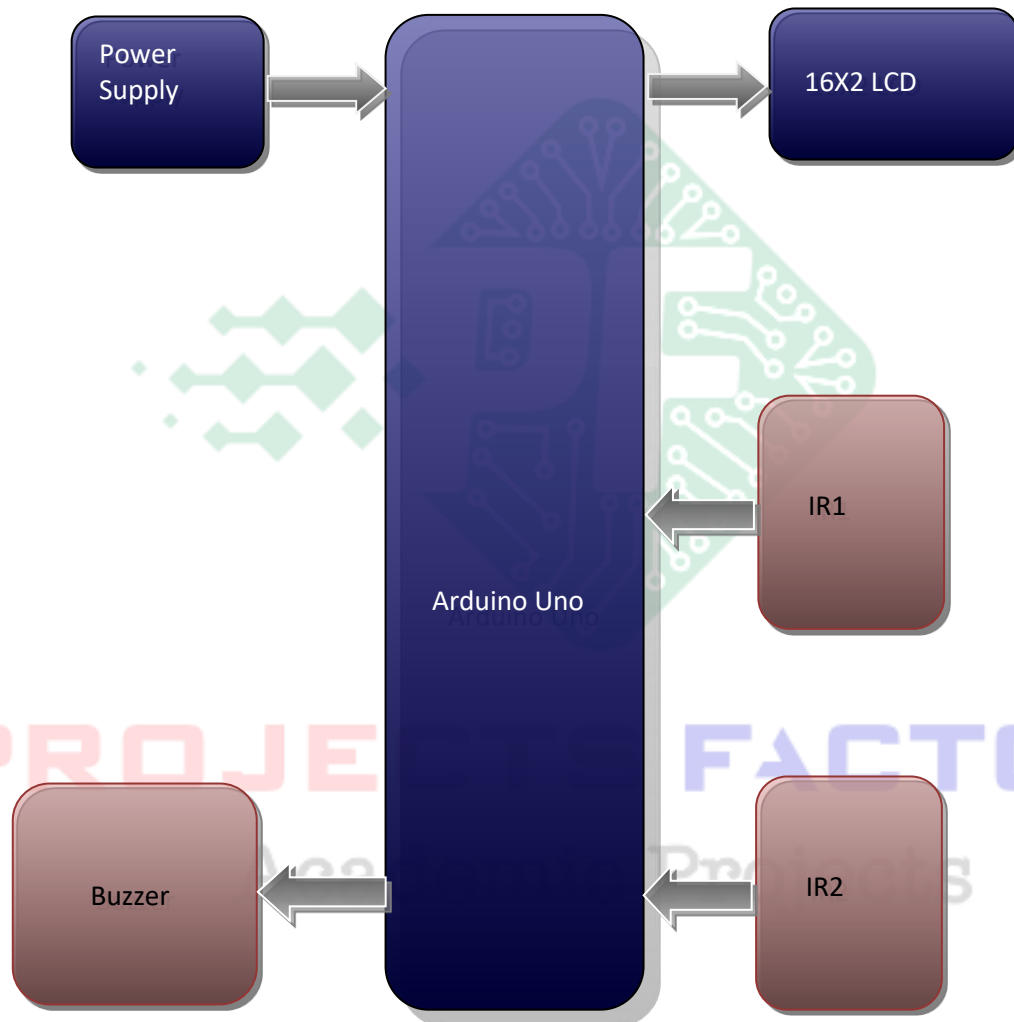
Arduino IDE  
Proteus based circuit diagram

### APPLICATIONS:

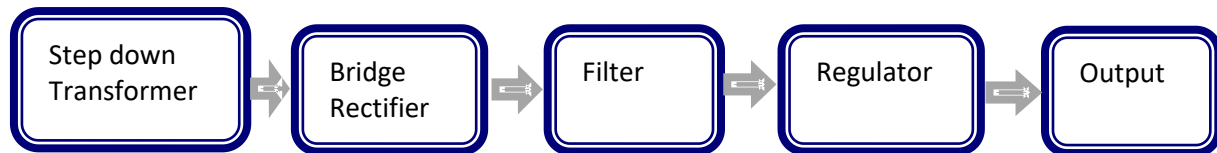
- Vehicle Safety Applications
- Road transport applications

**PROJECTS FACTORY**  
Academic Projects

**BLOCK DIAGRAM:**



## POWER SUPPLY BLOCKDIAGRAM:



## INTERFACES COVERED:

- We have covered Arduino programming
- Two IR sensors



PROJECTS FACTORY  
Academic Projects