

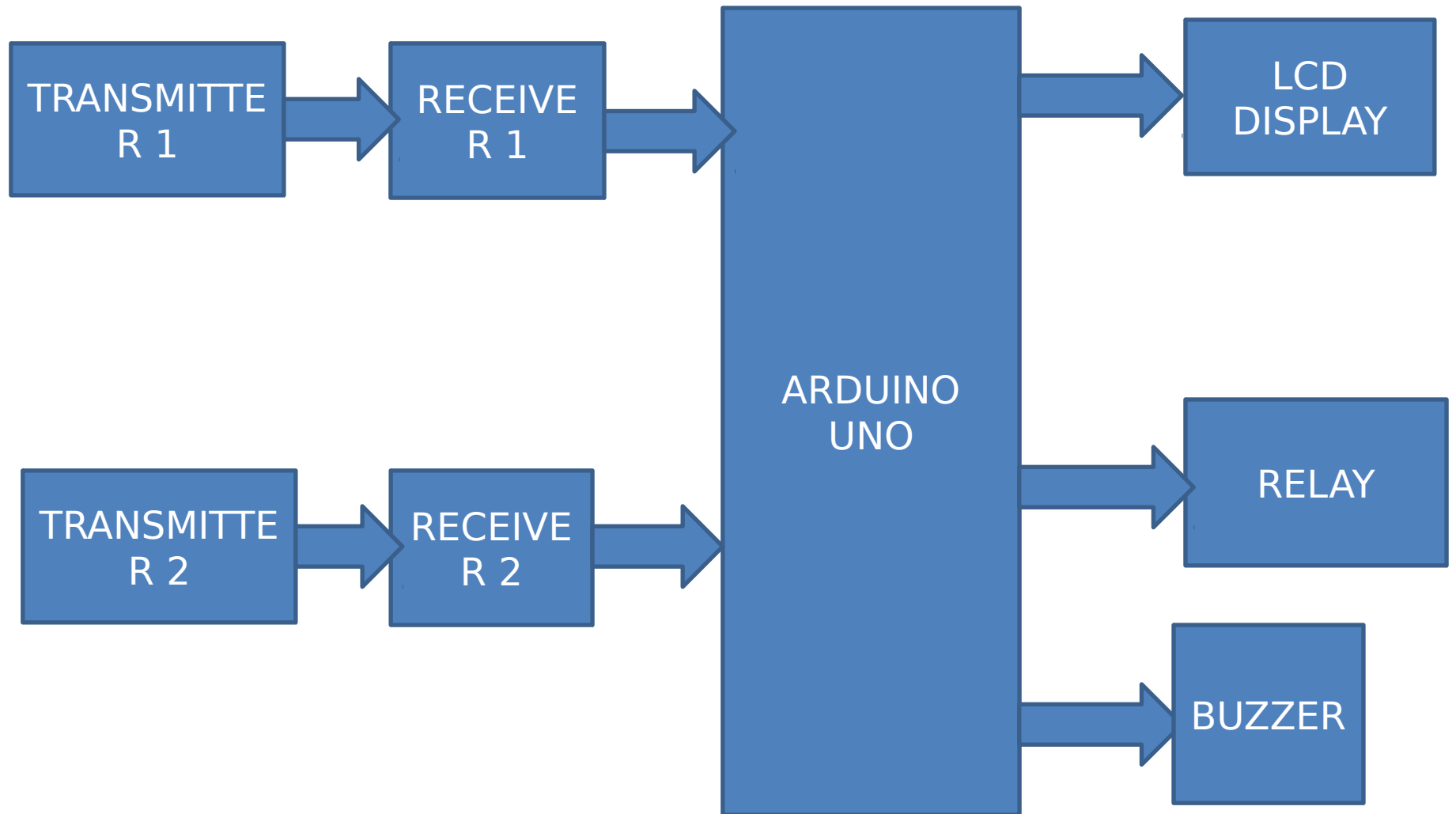
# **SPEED CHECKER TO DETECT RASH DRIVING OF AUTOMOBILES**

# ABSTRACT

- This paper presents a device to detect rash driving on highways and alert the traffic authorities in case of violation.
- The entire implementation requires an IR transmitter, an IR receiver, a control circuit and a buzzer.
- The speed limit is set by the police who use the system depending upon the traffic
- The time taken by the vehicle to travel from one set point to the other is calculated if the vehicle crosses the speed limit, a buzzer sounds alerting the police.

- The aim of this project is to develop a device to detect rash driving on highways and to alert the traffic authorities wirelessly the speed details and speed violation.
- Accidents due to rash driving on highways are on the rise and people are losing their lives because of others mistakes

# BLOCK DIAGRAM

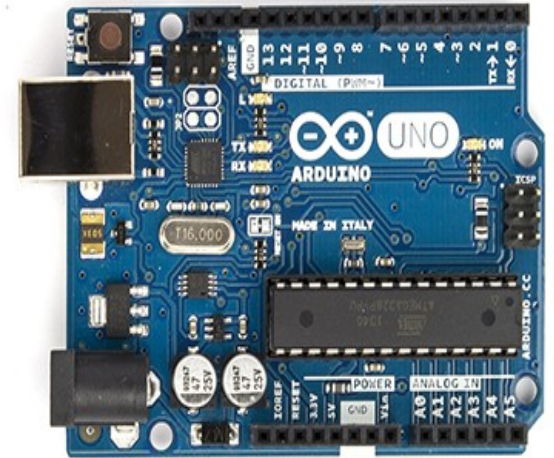


# BLOCK DESCRIPTION

## ARDUINO UNO

### Features

- ATmega328P microcontr
- Input voltage - 7-12V
- 14 Digital I/O Pins (6 PWM outputs)
- 6 Analog Inputs
- 32k Flash Memory
- 16Mhz Clock Speed

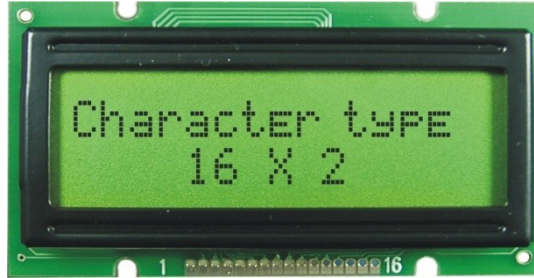


# IR SENSOR

- IR sensor can measure the heat of an object as well as detects the motion.
- IR led emits ir rays hits on object and recieved by phtodiode and thus keeps IR high.



# LIQUID CRYSTAL DISPLAY



- These modules are preferred over seven segments.
- LCDs consume much less power than LED
- gas-display displays because they work on the principle of blocking light rather than emitting it.
- A 16x2 LCD means it can display 16 characters per line and there are 2 such lines

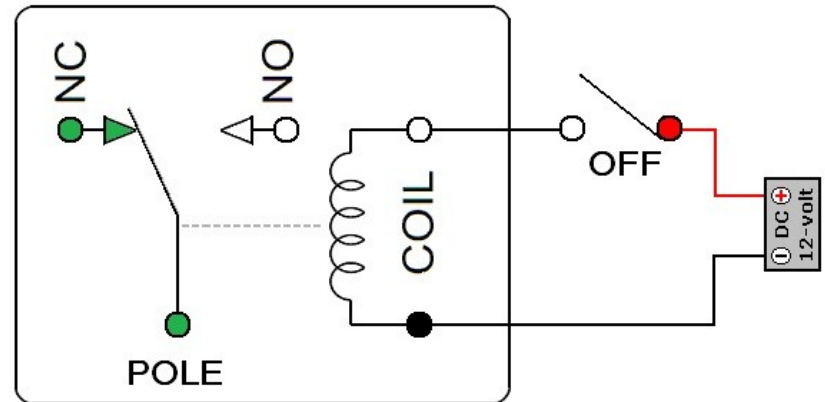
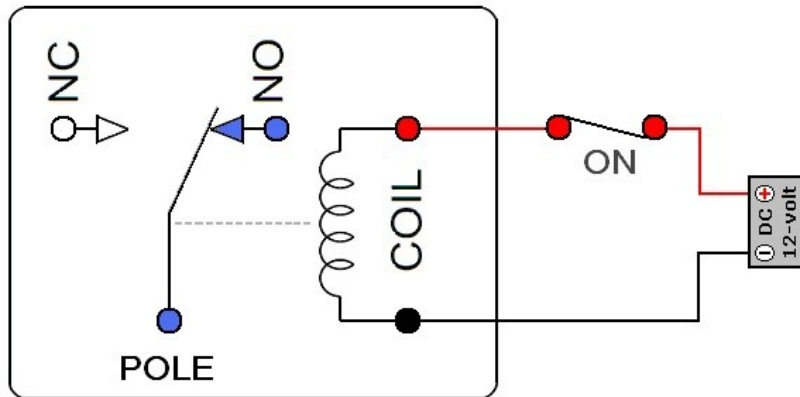
# RELAY



Relay is basically an electromagnetic switch which can be turned on and off by applying the voltage across its contacts

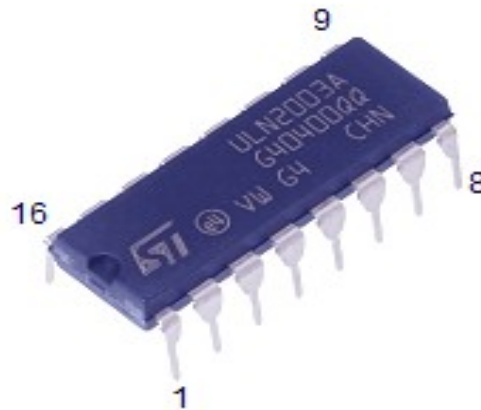
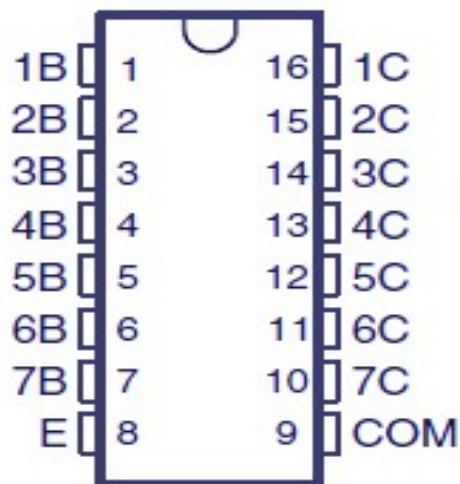


# How Relay works?

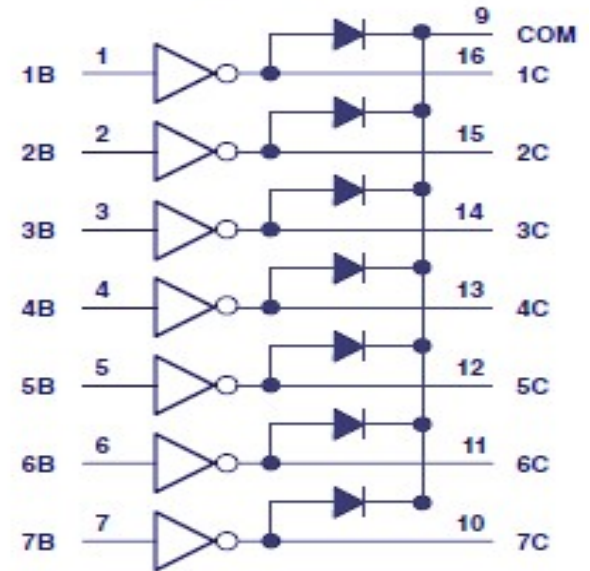


# • Relay driver – ULN2003

Pin configuration



Logic diagram



ULN2003A driver IC pin configuration and internal logic diagram

[www.circuitstoday.com](http://www.circuitstoday.com)

# Software requirements

- Tool  
    Arduino IDE
- Programming Languages  
    Embedded C/C++

# CONCLUSION

Since number of accidents on highways increases day by day so it is necessary to check speed of the vehicles on highways so as to remove accident cases and to provide a safe journey by controlling high speed of the vehicle. It also minimizes the difficulties of traffic police department . The police can perform their duties while sitting in control room and can provide their service. This concept can be extended in future by integrating a camera with the system which could capture the image of the number plate of the vehicle to sends that to the traffic authorities.

# REFERENCES

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