আন্তর্জাতিক ইসলামী বিশ্ববিদ্যালয় চট্টগ্রাম
الجامعة الإسلامية العالمية شيتاغونغ
International Islamic University Chittagong

Dept. Of Computer Science & Engineering

Proposal Presentation

of Team Bratva

Course Code: CSE-3524

Course Title: Microprocessor, Microcontrollers & Embedded System

Submitted to-

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Our Proposal Project Name:

Speed Test of a Moving Object

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Speed Test of a Moving Object

Motivation:

What if the moving object Speed Detection is made automatic?

A simple automatic detection of speed of a moving object is designed in Arduino moving object Speed Detector project, where you can place the system in one place and view the results instantly without any human intervention.

Speed Test of a Moving Object

Features:

- Helps in capturing speed of moving object.
- Can display the speed of a moving object.
- No need of human involvement.

This project can also be used as traffic logger, traffic counter and few other traffic related applications.

Speed Test of a Moving Object

Limitations:

- It can’t capture speed of all kinds of moving object, like fan.
- It has not any sound system, that tells you the speed.

Future Scope:

In Future, we can add sound system in this project. By adding sound system, it can tell you the speed of a moving object besides showing the speed in display.

Speed Test of a Moving Object

Social Impact:

Have Look at the example:

There are definite rules laid out by authorities about driving cars on roads. The most common rule in any country is speed limit in certain roads i.e., you will be in violation of the law if your car speed exceeds this limit. **In that case, one can place the system in one place and view the results (speed) instantly without any human intervention**.

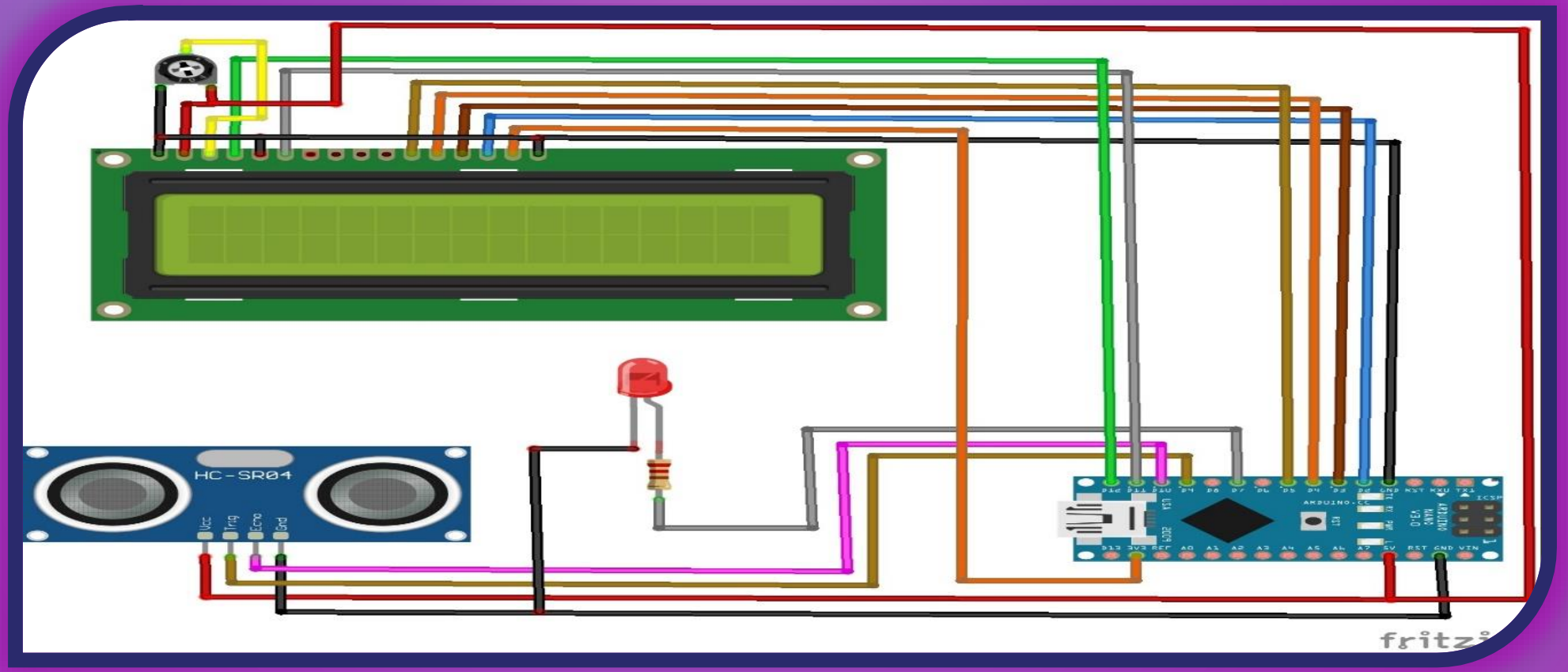
Speed Test of a Moving Object

Sensors and Equipment's:

- ✓ Arduino Nano R3 x 1
- ✓ Adafruit Standard LCD - 16x2 White on Blue x 1
- ✓ **Ultrasonic Sensor - HC-SR04 (Generic) x 1**
- ✓ LED (generic) x 1
- ✓ Resistor 330-ohm x 1
- ✓ Single Turn Potentiometer- 10k ohms x 1
- ✓ Some Connecting Wire

Speed Test of a Moving Object

Circuit Diagram:



Speed Test of a Moving Object

Cost Analysis:

Arduino Nano R3 x 1	-650 TK
Adafruit Standard LCD - 16x2 White on Blue x 1	-250 TK
Ultrasonic Sensor - HC-SR04 (Generic) x 1	- 95 TK
LED (generic) x 1	- 10 TK
Resistor 330-ohm x 1	- 5 TK
Single Turn Potentiometer- 10k ohms x 1	- 30 TK

Here, Our Total Estimated Cost Is 1000 TK To 1200 TK.

Speed Test of a Moving Object

Application:

The goal of measuring speed may vary based on the application-

- Including the safer operation of vehicles;
- Calculation of power as a product of speed and force;
- Evaluation of driver travel routes based on fuel efficiency and travel time;
- Fuel level tracking to prevent fuel theft, etc.

This is The End.

Assalamualaikum Waa Rahmatullah to All, Thank You!