Sound Level and Intensity Measurement

Sound sensor

- The **Sound sensor module** provides an easy way to detect **sound** and is generally used for detecting **sound intensity**.
- When the **sensor** detects a **sound**, it processes an output signal voltage which is sent to a microcontroller then performs necessary processing.
- The Sound Detector is a small board that combines a microphone and some processing circuitry. It provides not only an audio output, but also a binary indication of the presence of sound, and an analog representation of it's amplitude.

Working of project

It is using Sound Module & Arduino with LCD Display has been designed specifically for detecting the level of sound produced from any source and its intensity as well. The LCD panel directly displays the information about sound level in numbers. The sound is distinguished as low, medium and high level on the basis of intensity of LED glow.

Components required

1. Arduino Mega
2. Sound sensor module
3. 16x2 LCD display
4. Potentiometer
5. USB cable
6. Breadboard
7. Jumper wires(male to male)

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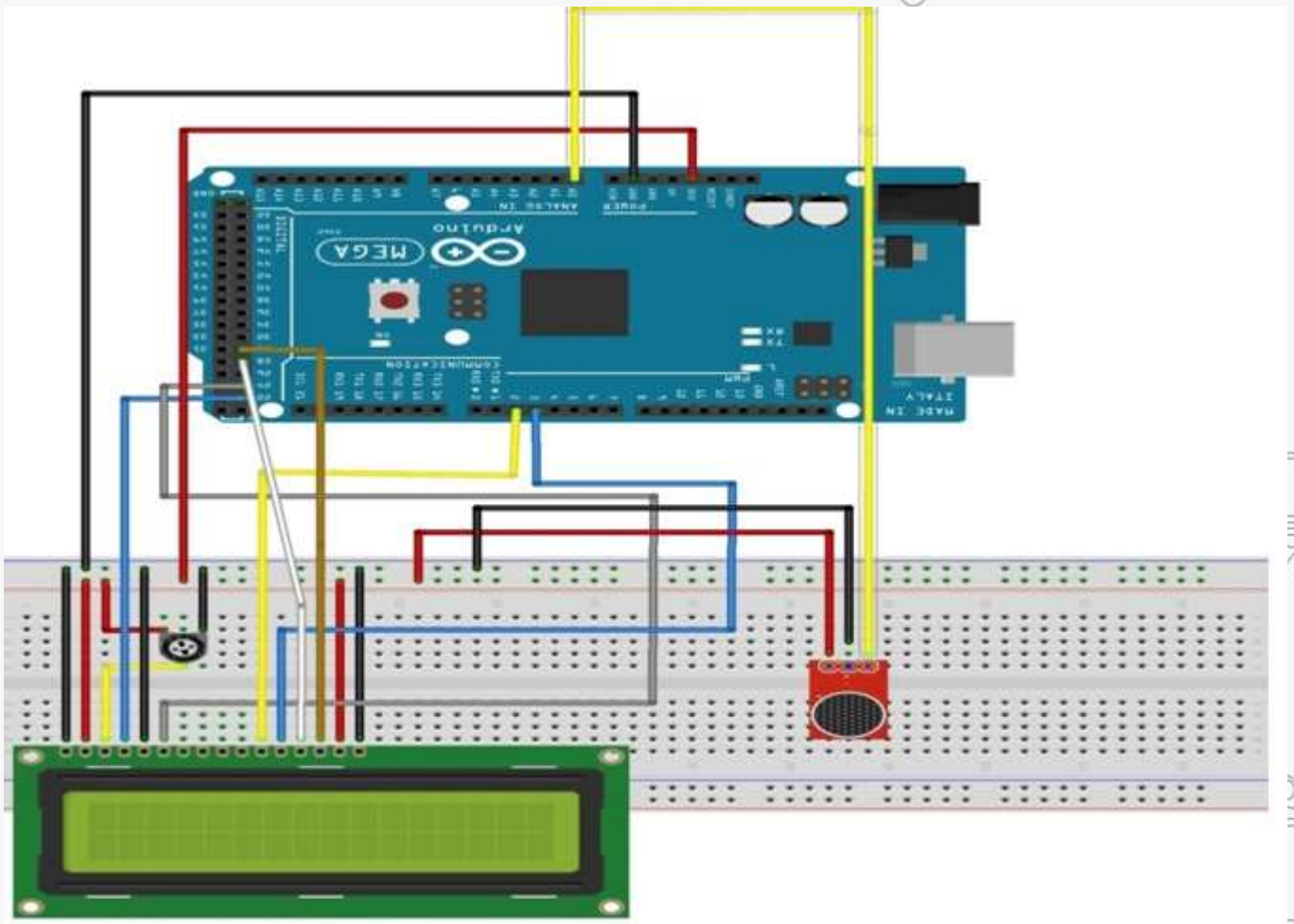
Connection Diagram



Sound sensor connections :

- Connect Ao pin of sound sensor with Ao pin of Arduino Mega.
- Connect Vcc pin of sound sensor with Arduino +5V .
- Connect GND pin of sound sensor with Arduino GND pin.

Connections for LCD :

- PIN1 or Vss to ground
- PIN2 or Vdd or Vcc to +5V power
- PIN3 or Vee to potentiometer (gives maximum contrast best for a beginner)
- PIN4 or RS (Register Selection) to PIN22 of Arduino
- PIN5 or RW (Read/Write) to ground
- PIN6 or E (Enable) to PIN24 of Arduino
- PIN11 or D4 to PIN2 of Arduino
- PIN12 or D5 to PIN3 of Arduino
- PIN13 or D6 to PIN28 of Arduino
- PIN14 or D7 to PIN30 of Arduino
- PIN15 or A to +5V of Arduino
- PIN16 or K to GND of Arduino

Project Link : https://youtu.be/nqSxk2alUuk