**NOISE POLLUTION MONITORING**

**Definition:**

Noise is Monitored Using a Sound Level Meter.This is to measure changes in air pressure, recorded in decibels. Noise is typically measured by adjusting how a human ear responds to sound.

**USED COMPONENTS:**

* ESP8266 NodeMCU Board
* Microphone sensor
* 16\*2 LCD Module
* Breadboard
* Connecting wires

**ESP8266 NodeMCU Board:**

If you have completed various Arduino projects and are familiar with Arduino, using NodeMCU instead of Arduino Uno is the logical next step if you’re looking for a more compact module that encompasses Wi-Fi. NodeMCU is predicated on the Esperessif ESP8266-12E Wi-Fi System-On-Chip. It is based on Lua-based firmware and is open-source.

It’s perfect for IoT projects, especially other Wireless connectivity projects as Arduino does not work wirelessly. We either need to connect it to a Bluetooth or nRF module This chip has a great deal in common with the Arduino – they’re both microcontroller-equipped prototyping boards that can be programmed using the Arduino IDE. The ESP8266 is more updated and younger than Arduino, and therefore the ESP has stronger specifications than Arduino.

**Microphone sensor:**

microphone is a sensor or transducer that converts sound (acoustic energy) into electrical energy that we can amplify, digitize, display, record, and more. As with other sensors, there are several types of microphones that are commonly used in sound and noise-measuring applications.

**16\*2 LCD Module:**

An LCD screen is an electronic display module that uses liquid crystal to produce a visible image. The 16×2 LCD display is a very basic module commonly used in DIYs and circuits. The 16×2 translates a display of 16 characters per line in 2 such lines. In this LCD, each character is displayed in a 5×7 pixel matrix.

**Breadboard:**

A breadboard (sometimes called a plugblock) is used for building temporary circuits. It is useful to designers because it allows components to be removed and replaced easily. It is useful to the person who wants to build a circuit to demonstrate its action, then to reuse the components in another circuit.

**Connecting wires:**

Connecting wires are one of the most important components in an electrical circuit because these are the components through which electricity flows from one electrical component to another. It is with the help of wire that electricity flows from cell to light bulb.