Noise Pollution Monitoring System

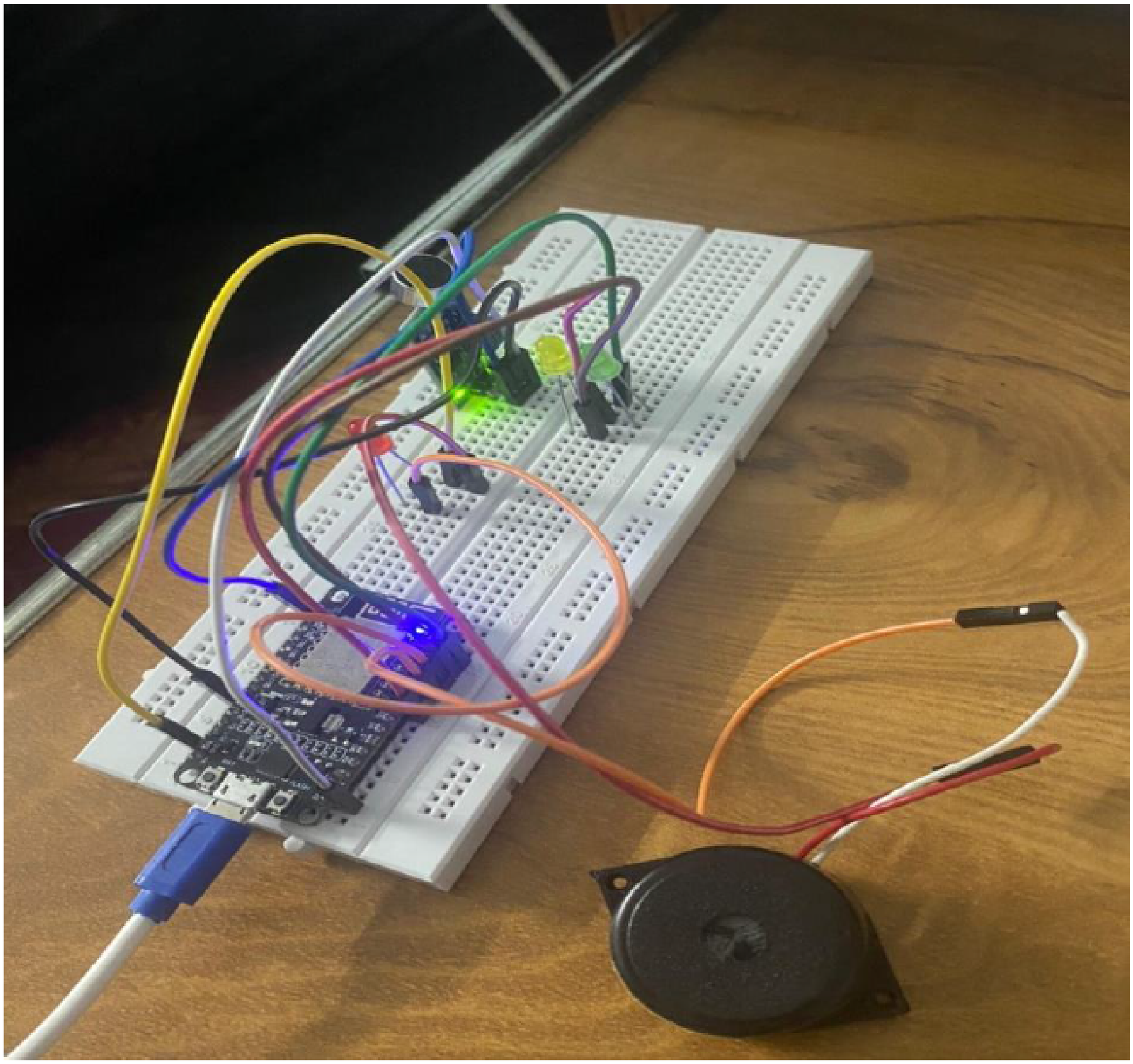
COMPONENTS :

1. ArduinoUNO
2. MQ135 (Gassensor)
3. LM393 (Noisesensor)
4. ESP8266 WIFIModule
5. 16*2 LCDDisplay
6. LED
7. Buzzer

Datasets:

- Air is most important factor in humanslife.If there is any kind of air pollution it's harmful for human. Air pollution kill more than seven million people worldwide every year.
- Pollution is very harmful for those people who have any kind of internal diseases on this type of people pollution affect veryfastly.In atmosphere is the full of air which contain monoxide, smoke, alcohol, benzene, methane etc.
- Between this gases some are good and some are harmful for environment for certain level some gases are good for human, animals, plants but beyondcertain level these created problem for services to overcome these problem system is useful because of this we can analyse the air and noise pollution means how many pollution level in atmosphere in three different levels.
- In this we use thingspeak we can analyse previous data also using this platform in graphical form.

HARDWARE IMPLEMENTATION OF THE PROPOSED MODEL



- Arduino UNO

Oscillator frequency is 16 MHz It contains everything needed to support the microcontroller simply connect it to a computer with USB cable. It has 6 analog input pins.

- **MQ135 Gas Sensor**

They are used in air quality control equipment for building offices are suitable for detecting of NH3, alcohol, benzene, smoke CO2 etc.

- **LM393 Sound Sensor**

Sound is detected via microphone and fed into an LM393 opamp. The sound level adjust through pot. The sound increases set value output is low.

ESP8266 WIFI Module

The esp8266 is capable of either hosting an application or offloading all WIFI networking functions from another application processor.

- **16*2 LCD Display**

LCD is used for to display the condition there are three conditions in air pollution and three conditions in noise pollution means air and sound is clear, moderately polluted or highly polluted that is displayed on LED.

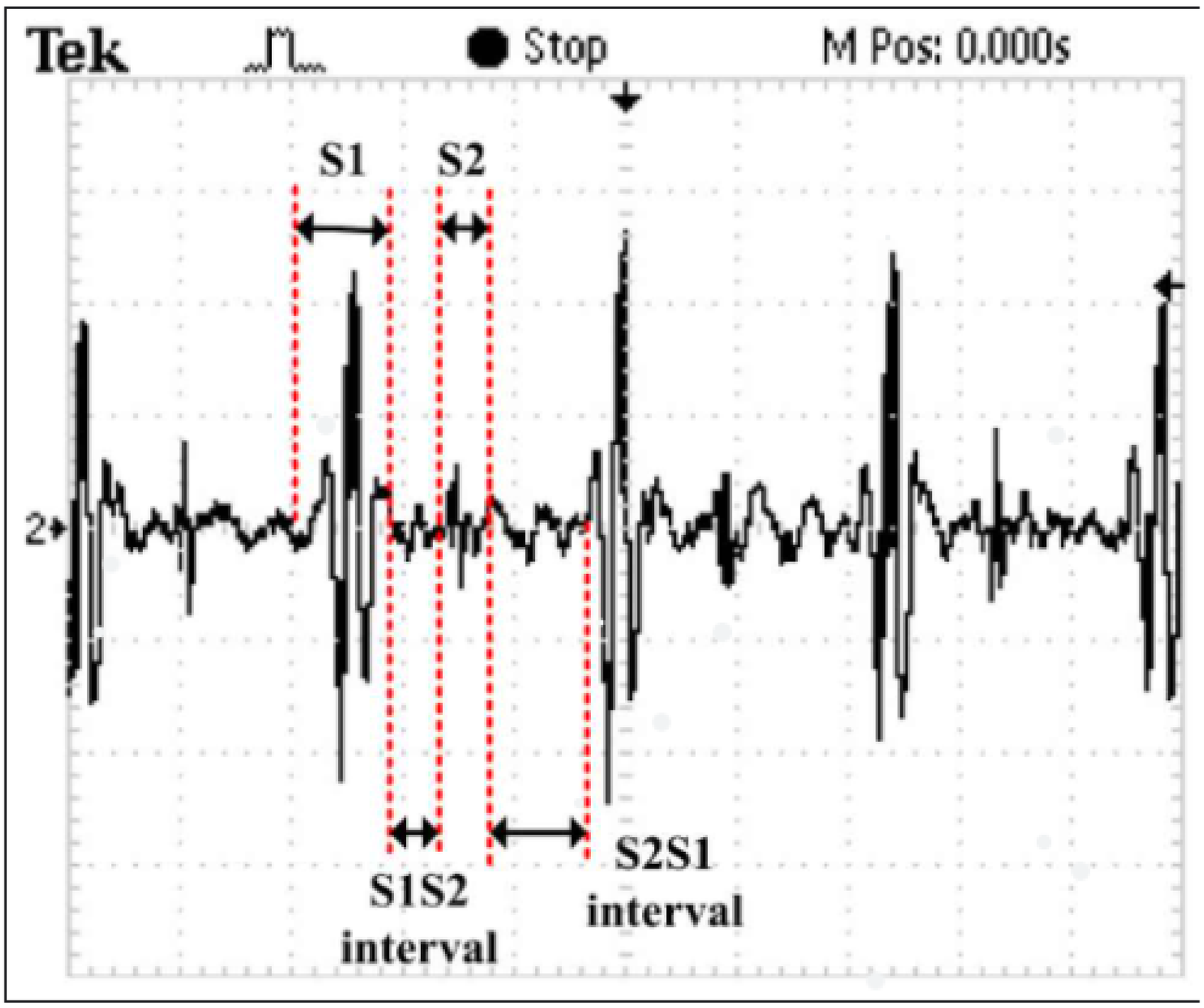
- **BUZZER**

1. Sensors are easily available.
2. Sensors are effortlessly accessible.
3. Detecting of wide range of gases.

4. Simple, compact and easy to handle.

5. Sensors have long life time.

TESTING RESULT



APPLICATIONS

1. To estimate the pollution.
2. Indoor Air Quality Monitoring.
3. To design server and upload data on that server with date and time.
4. We can use it at industrial area as there is lot of noise pollution
5. In city roads traffic noise.
6. Activities like shooting, open air events, football and cricket matches.
7. At small level, in schools and colleges we can use this device.
8. Automation Automation.

FUTURE SCOPE

In future we modify the system to notify a user about the air quality and noise level it reaches beyond permissible level through sms or app.
We can monitor air and sound pollution level at any place of the world.