



# Noise Pollution Awareness

## Problem Statement

Noise pollution is an invisible danger. It cannot be seen, but it is present nonetheless, both on land and under the sea. Noise pollution is considered to be any unwanted or disturbing sound that affects the health and well-being of humans and other organisms ("Noise Pollution").

## Proposed Solution

To aware public of the problem and begin reducing what causes noise pollution. By providing authorities with noise pollution data from an easy to use website to then perform certain action based on the noise pollution data. And a website for advertisement and awareness for the public and public can report and interact with the authorities through it.

## Deliverables and Outcomes

The project should provide a web interface for authorities to observe and analyse statistics and informations of audio samples data coming from a hardware from multiple location areas, and using the help of AI these audio samples will be classified to save time that a human should hear every audio sample and classify

the type of noise. And a website for the public that is focused to send noise reports from the public to the authorities website.

## Resources

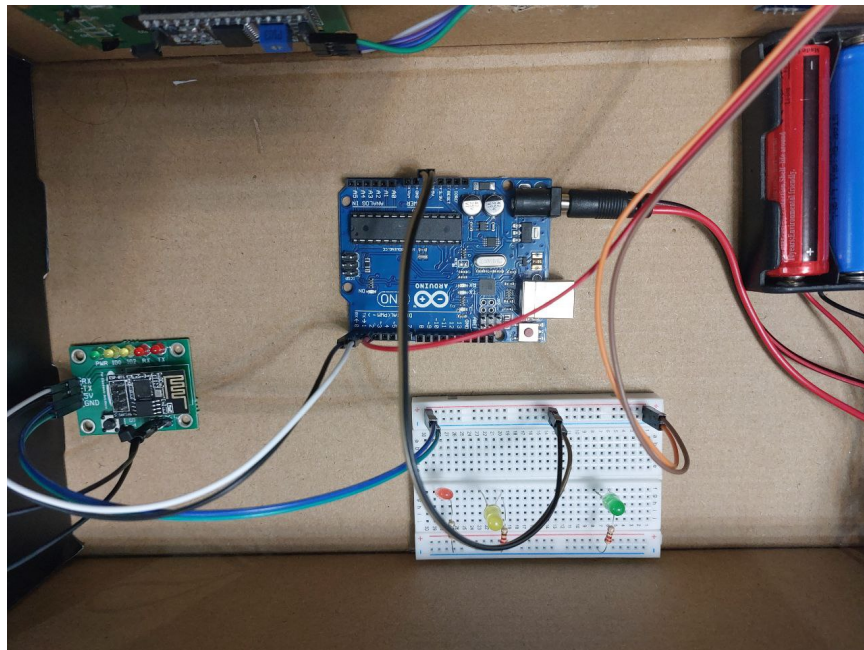
### Hardware

#### Currently Available

- Arduino UNO
- ESP01S Wi-Fi module
- Batteries
- Breadboard

#### Currently Not Available

- Microphone Amplifier MAX4466
- Micro SD Card module
- Micro SD Card



## Software

Technologies:

- Next.js (Front end)
- Node.js (Runtime)
- Express.js (Back end)
- MongoDB (Back end)
- API from an AI model (possibly from Google colab or any AI framework)

Team Members	Sector
Abdelrahman Tharwat Rashed Khalil	Embedded System

## References

"Noise Pollution." *Education | National Geographic Society*,  
<https://education.nationalgeographic.org/resource/noise-pollution/>. Accessed 15 Feb. 2024.