

College name: JP college of engineering

College code :9512

Project code: proj_211936_team_1

NOISE POLLUTION MONITORING

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Configure IOT device

Sensor for noise pollution control:

To control noise pollution and measure sound levels, you can use sound level sensors, commonly known as noise level meters or sound level meters. These sensors can provide accurate measurements of noise levels in decibels (dB).



PROGRAM:

```
Import pyaudio
```

```
Import wave
```

```
# Initialize the audio stream
```

```
P = pyaudio.PyAudio()
```

```
Stream = p.open(format=pyaudio.paInt16, channels=1,  
rate=44100, input=True, frames_per_buffer=1024)
```

```
# Record audio and save to a file
```

```
Frames = []
```

```
For _ in range(0, int(44100 / 1024 * RECORD_SECONDS)):
```

```
    Data = stream.read(1024)
```

```
    Frames.append(data)
```

```
# Save the recorded audio to a WAV file
```

```
Wf = wave.open("output.wav", "wb")
```

```
Wf.setnchannels(1)
Wf.setsampwidth(p.get_sample_size(pyaudio.paInt16))
Wf.setframerate(44100)
Wf.writeframes(b"".join(frames))
Wf.close()
```

```
# Close the audio stream
Stream.stop_stream()
Stream.close()
p.terminate()
```

we have control the noise pollution follow same rules;

