



Air Quality Monitor

Real-time monitoring of air quality parameters





Core Features:

- **Live data monitoring**
 - **Visual representation**
 - **Health indicators**
- 



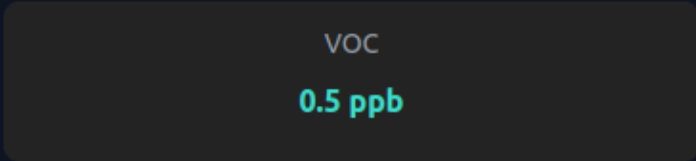
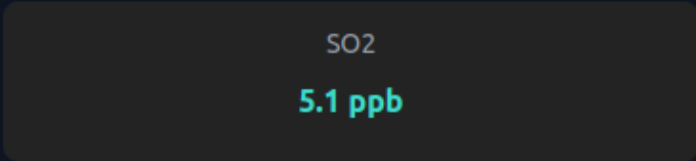
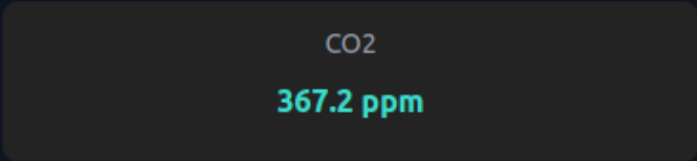
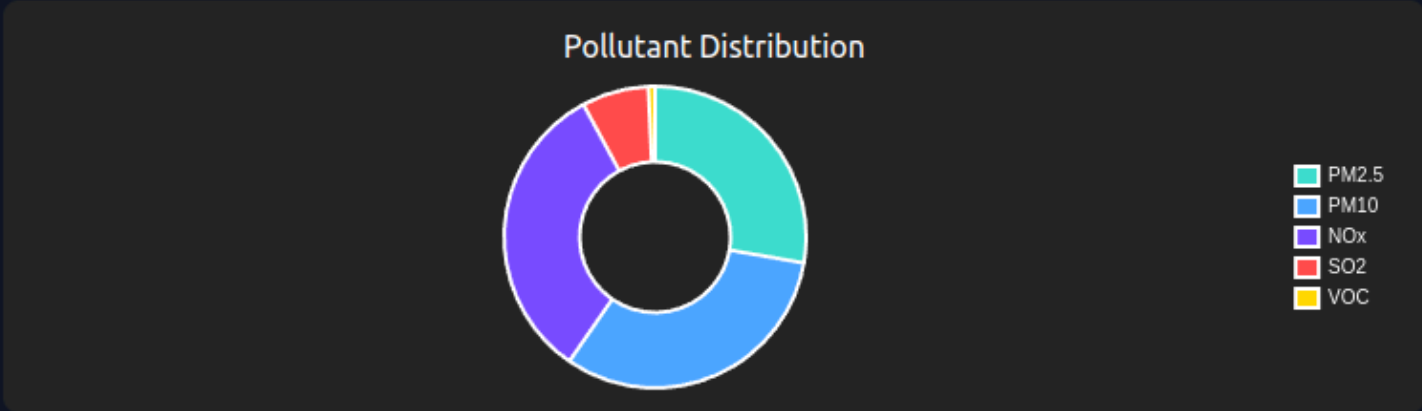
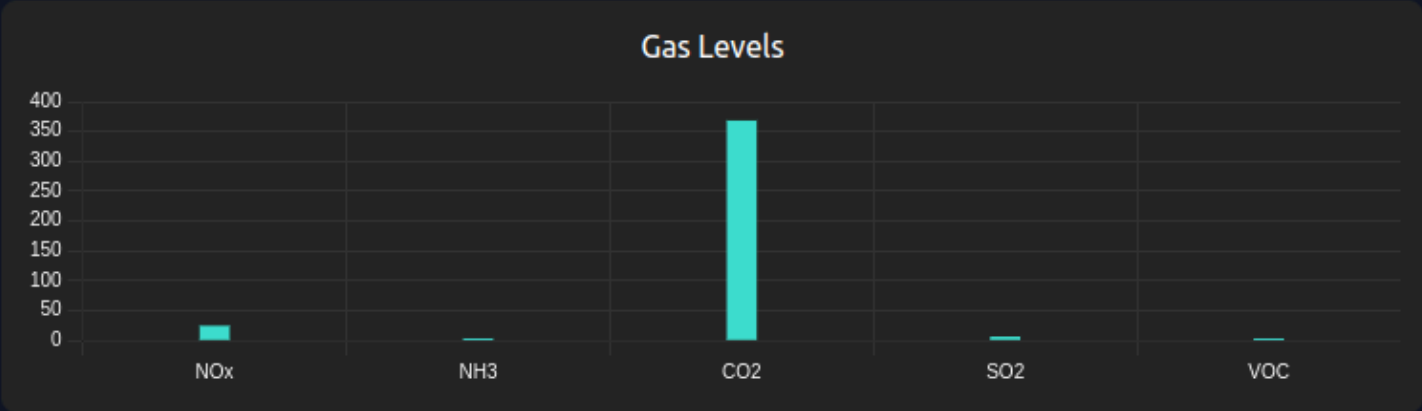
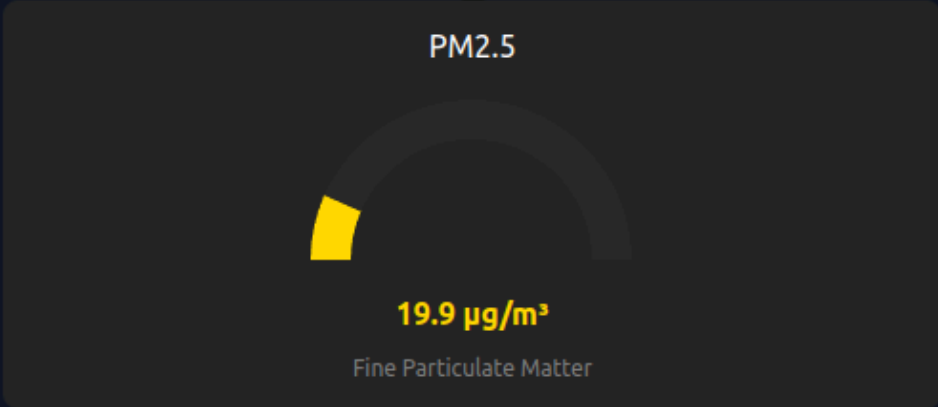
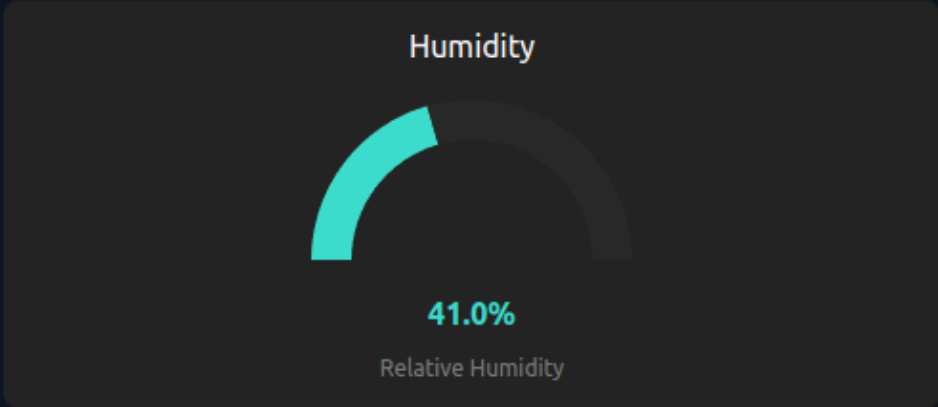
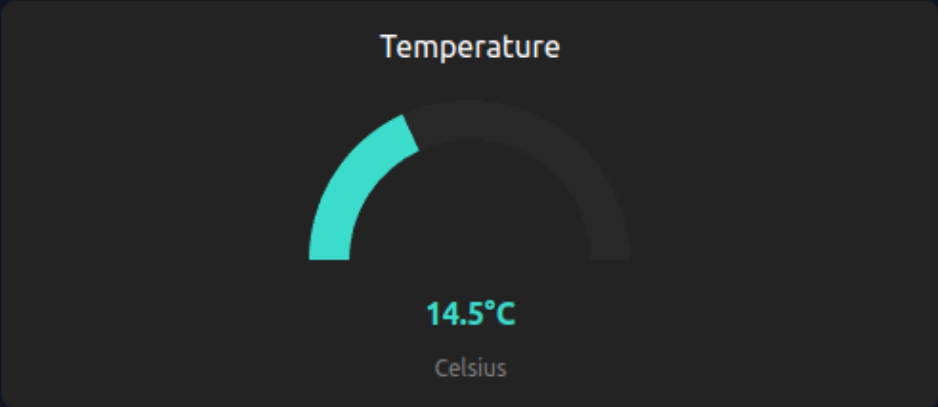
Frontend Technologies:

- HTML5, CSS3, JavaScript
 - Chart.js for visualizations
 - Real-time API integration
(OpenWeatherMap)
- 

Safe Level

Caution Level

Warning Level



About

Real-time monitoring

Resources

Documentation

Contact

support@airquality.com

API integration

- Location-based monitoring
- Update frequency (5-minute intervals)

```
1 // Configuration
2 const API_KEY = '7ee4d6ec368f68230ddbd2dab8e7d2e1';
3 const AIR_POLLUTION_URL = 'https://api.openweathermap.org/data/2.5/air_pollution';
4 const WEATHER_URL = 'https://api.openweathermap.org/data/2.5/weather';
5 const LOCATION = {
6   lat: 35.234017,
7   lon: 129.080699
8 };
9
```

```
setInterval(fetchAirQualityData, 5 * 60 * 1000);
```

Dashboard Components

- Temperature Gauge
- Humidity Gauge
- PM2.5 (Particulate Matter) Gauge
- Gas Levels Bar Chart
- Pollutant Distribution Doughnut Chart

```
new Chart(document.getElementById('particleChart'), {
  type: 'doughnut',
  data: {
    labels: ['PM2.5', 'PM10', 'NOx', 'SO2', 'VOC'],
    datasets: [{
      data: [data.pm2_5, data.pm10, data.no2, data.so2, data.nh3],
      backgroundColor: Object.values(CHART_COLORS)
    }]
  },
  options: {
    responsive: true,
    maintainAspectRatio: false,
    plugins: {
      legend: {
        position: 'right',
        labels: {
          color: '#fff',
          font: { size: 10 },
          boxWidth: 12,
          padding: 6
        }
      }
    }
  }
});
```

```
const CHART_COLORS = {
  primary: '#40E0D0',
  secondary: '#4DA6FF',
  tertiary: '#7C4DFF',
  quaternary: '#FF4D4D',
  quinary: '#FFD700'
};
```

```
function createGauge(canvasId, value, min, max) {
  return new Chart(document.getElementById(canvasId), {
    type: 'doughnut',
    data: {
      datasets: [{
        data: [value, max - value],
        backgroundColor: [CHART_COLORS.primary, '#2a2a2a'],
        borderWidth: 0
      }]
    },
    options: {
      responsive: true,
      maintainAspectRatio: false,
      circumference: 180,
      rotation: -90,
      cutout: '75%',
      plugins: {
        legend: { display: false },
        tooltip: { enabled: false }
      },
      layout: { padding: 8 }
    }
  });
}
```

Color-Coded Status Indicators:

- **Turquoise: Safe Level**
- **Yellow: Caution Level**
- **Red: Warning Level**

```
const DANGER_LEVELS = {  
  temperature: {  
    good: [-10, 25],  
    moderate: [-20, 30],  
    dangerous: [-30, 35],  
    color: {  
      good: '#40E0D0', // Turquoise  
      moderate: '#FFD700', // Yellow  
      dangerous: '#FF4D4D' // Red  
    }  
  },  
  humidity: {  
    good: [30, 50],  
    moderate: [20, 60],  
    dangerous: [0, 100],  
    color: {  
      good: '#40E0D0',  
      moderate: '#FFD700',  
      dangerous: '#FF4D4D'  
    }  
  },  
}
```



Future Enhancements

- **Historical data tracking (line chart)**





Thank you

