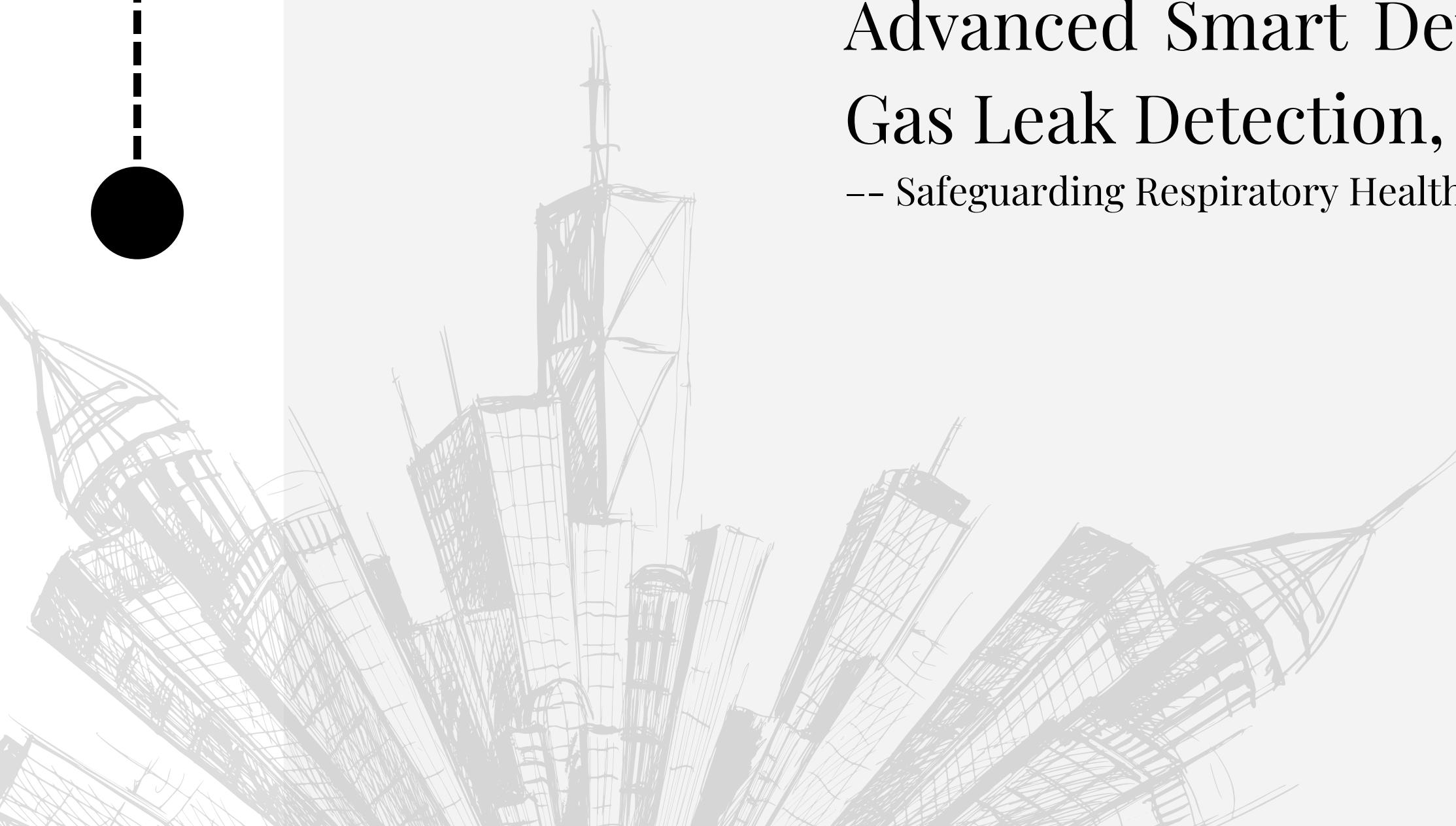


AirSential

Advanced Smart Device for Air Quality Monitoring,
Gas Leak Detection, and Emergency Response

-- Safeguarding Respiratory Health with Intelligent Hazard Prevention

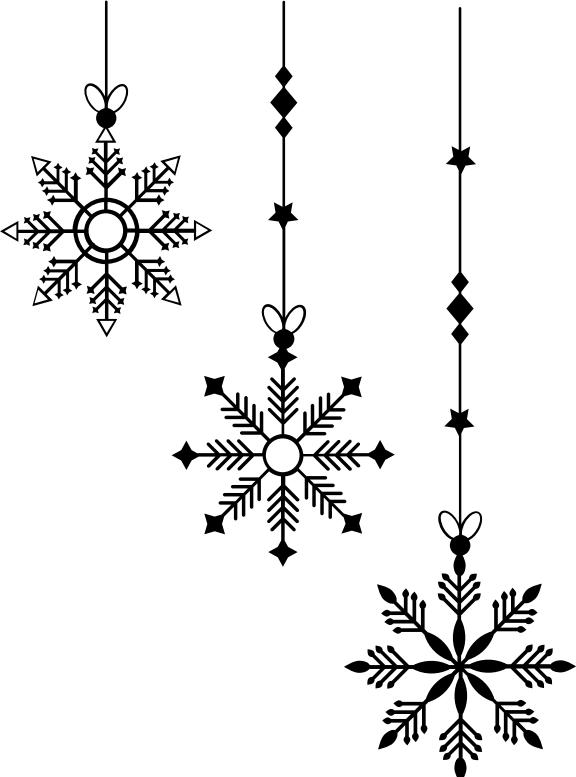


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WHY ?

The severity of air pollution refers to the level of harmful pollutants in the air and its impact on health, the environment, and daily activities. It is typically measured using the Air Quality Index (AQI), which ranges from 0 to 500.

- Low Severity (AQI 0-50): Good air quality, with little to no health risk.
- Moderate Severity (AQI 51-100): Some risk for sensitive groups, but generally safe for the population.
- High Severity (AQI 101-150): Unhealthy for sensitive groups, such as children and people with respiratory conditions.
- Very High to Hazardous Severity (AQI 151+): Health risks for the entire population, with significant environmental damage

INDIA'S SILENT KILLER

Studies at 400 locations in 190 cities indicate deteriorating quality of air

PARTICULATE MATTER

Toxic states: Delhi, Jharkhand, Punjab, UP, Bihar, Chhattisgarh, Rajasthan and Haryana

Five most dirty cities: Gwalior (308 ug/m³), West Singhbhum (302 ug/m³), Ghaziabad (290 ug/m³), Raipur (289 ug/m³) and **Delhi (261 ug/m³)**

Top five polluted locations: Dindayal Nagar (Gwalior), Town Hall (Delhi), Sarora (Raipur), Janakpuri (Delhi) and West Singhbhum, Jharkhand.

Reason: High vehicular & industrial pollution

National Standard: **60 micro grams** in cubic meter of air (ug/m³)

NITROGEN OXIDE

Toxic states: West Bengal, Delhi, Jharkhand, Maharashtra, UP & Rajasthan.

Five most dirty cities: Howrah (75 ug/m³), Barrackpore (74 ug/m³), Badlapur (73 ug/m³) and Ulhasnagar in Maharashtra (68 ug/m³) and Durgapur in West Bengal (66 ug/m³).

Reason: Flux of diesel vehicles.
National standard: 40 ug/m³

SULPHUR DIOXIDE

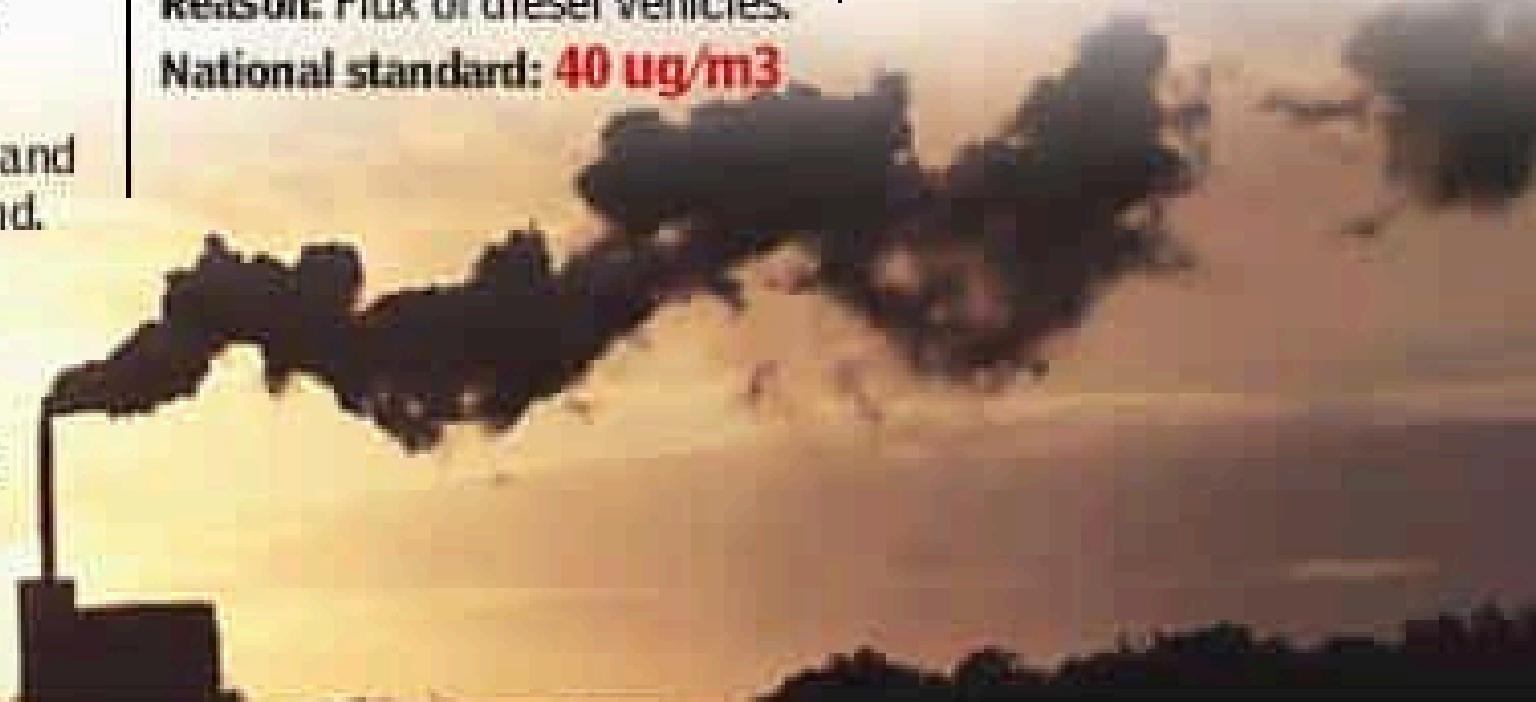
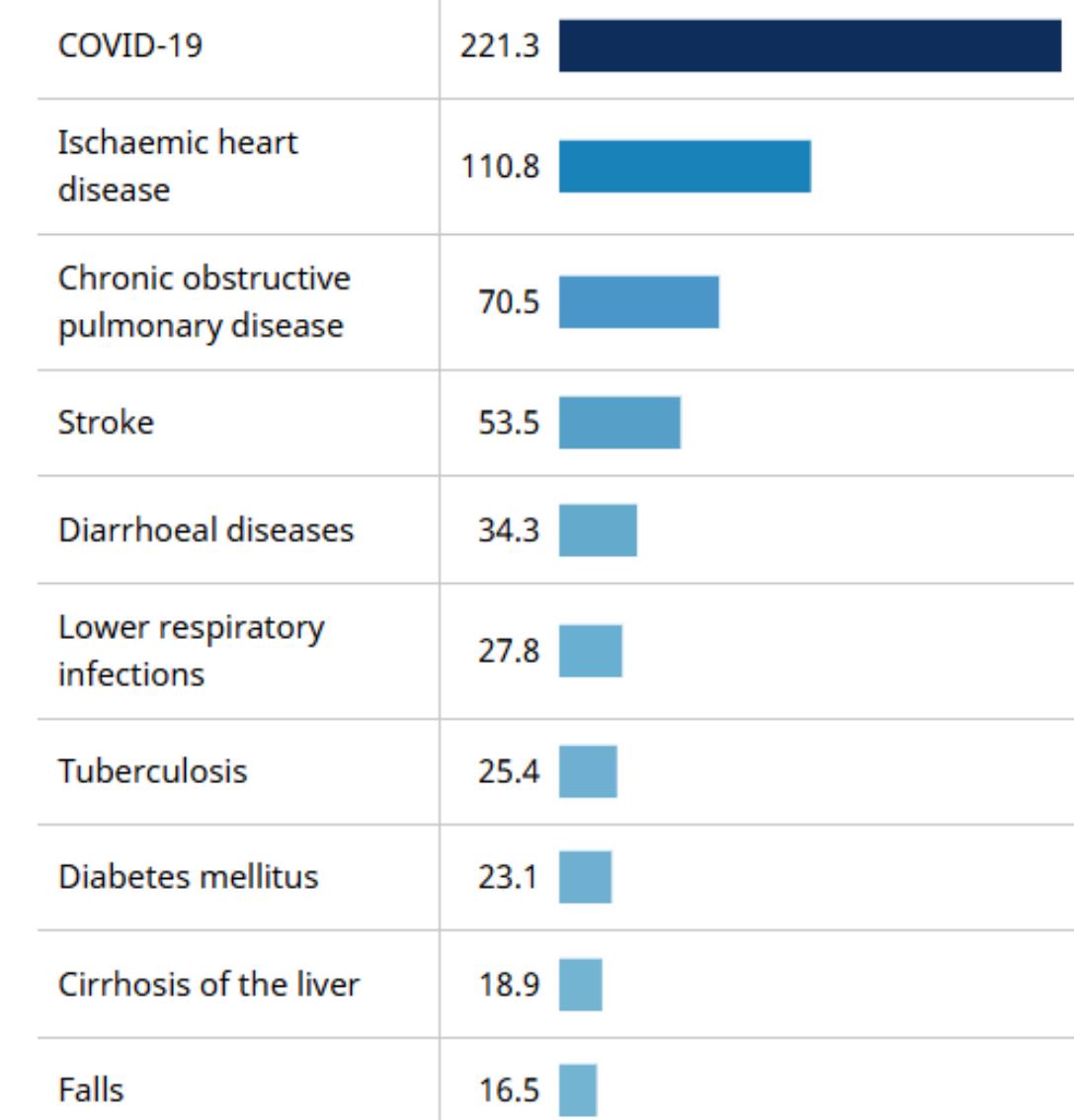
Toxic states: Jharkhand and Maharashtra

Cities with highest level: Jamshedpur (35.4 ug/m³), Saraikele Kharsawan (35 ug/m³), Badlapur in Maharashtra (32.3 ug/m³) and Marmagao in Goa (31.8 ug/m³)

National Standard: 50 ug/m³

Top causes of death

Deaths per 100 000 population. India, 2021



Air Pollution: A Global Health Threat

Air quality for selected cities based on annual average PM_{2.5} particle concentration in 2023 (in µg/m³)



* Population weighted. Air quality data analyzed from 7,812 cities across 134 countries, regions, and territories.

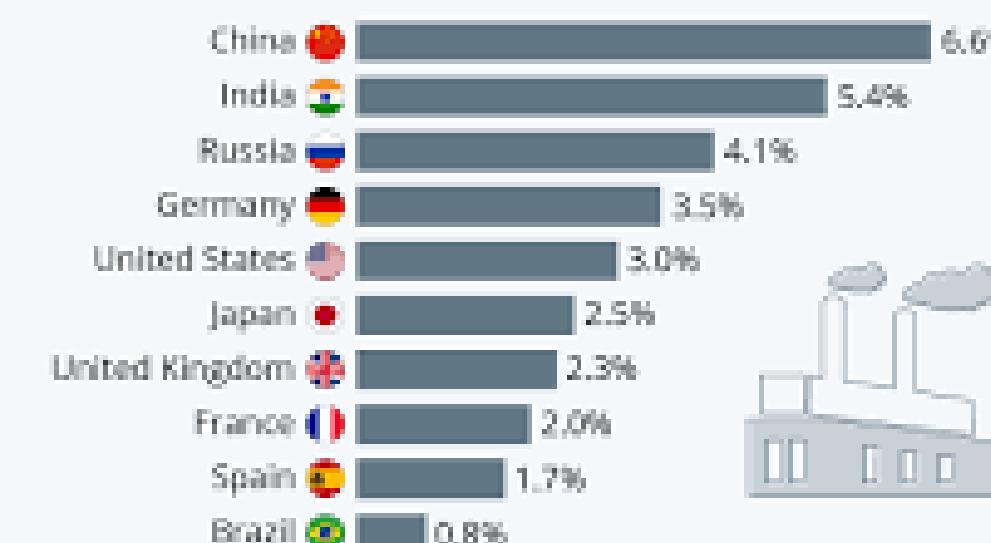
Source: IQAir



statista

The Economic Burden Of Air Pollution

Economic costs of air pollution from fossil fuels as a share of GDP in 2018

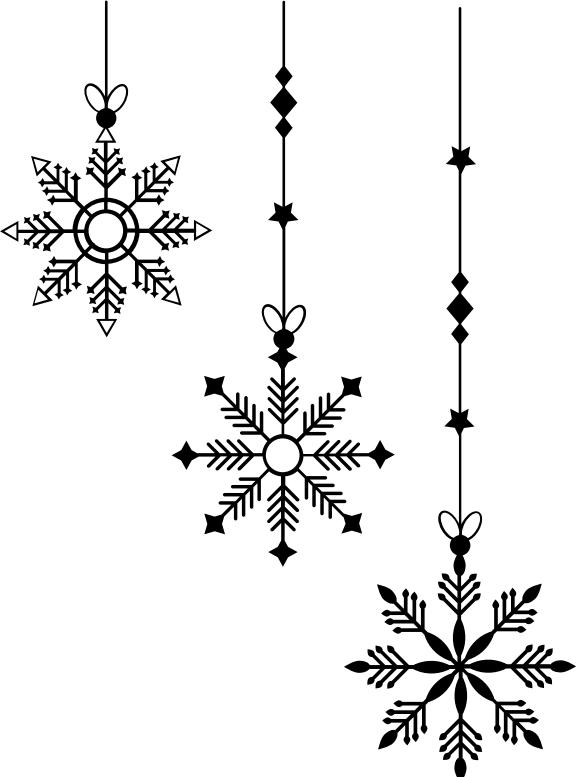


Sources: Greenpeace, Center for Research on Energy and Clean Air



statista

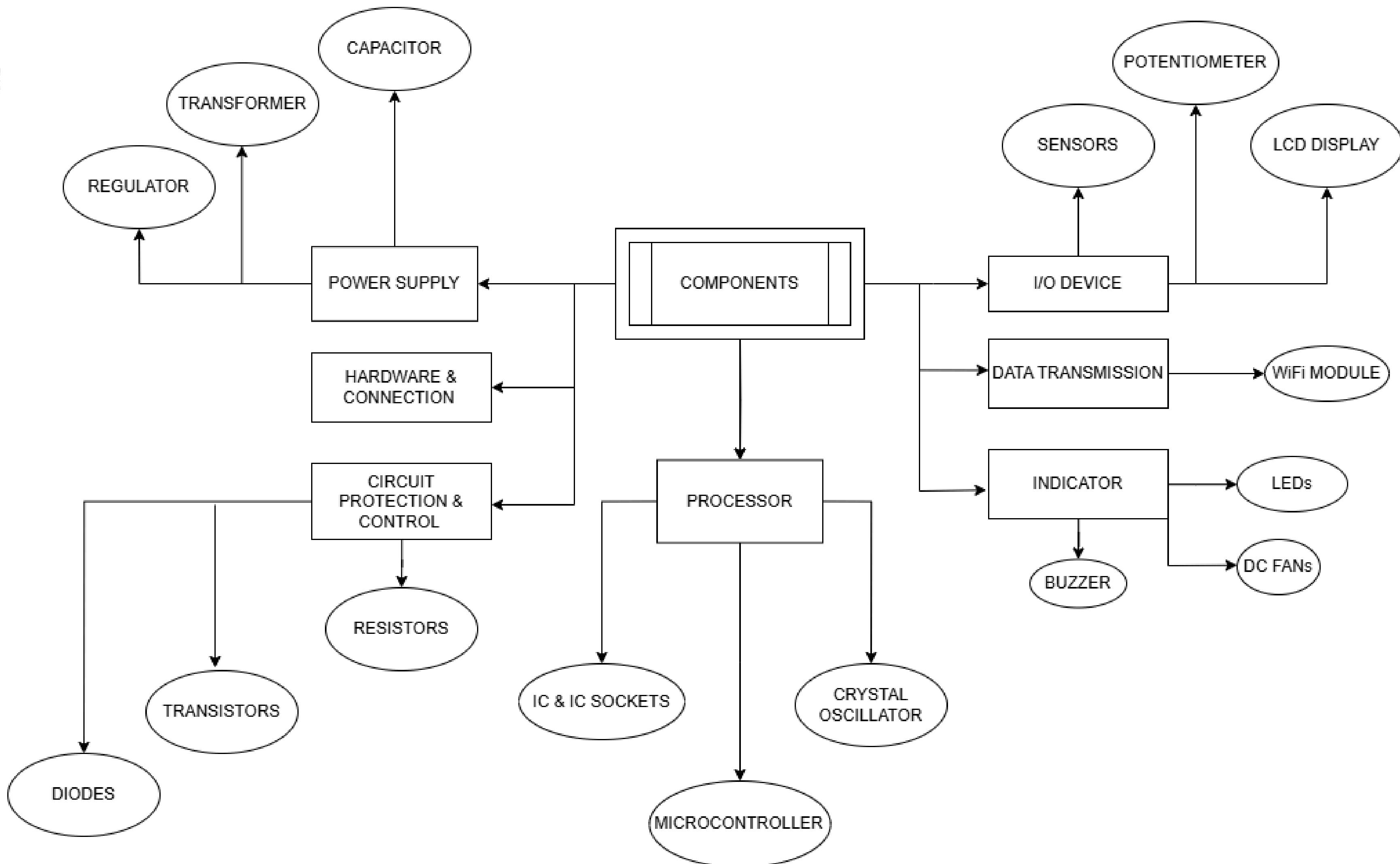


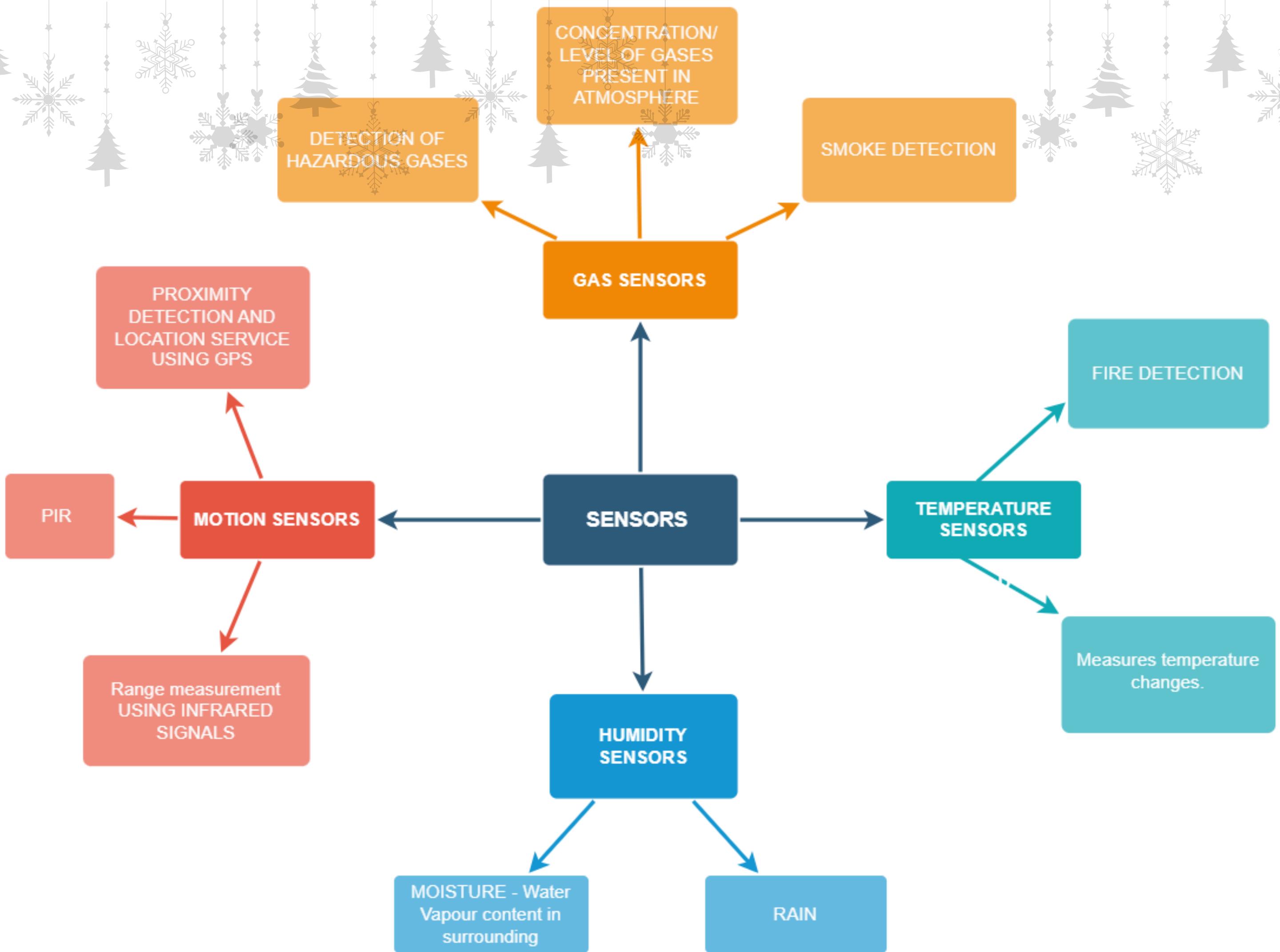


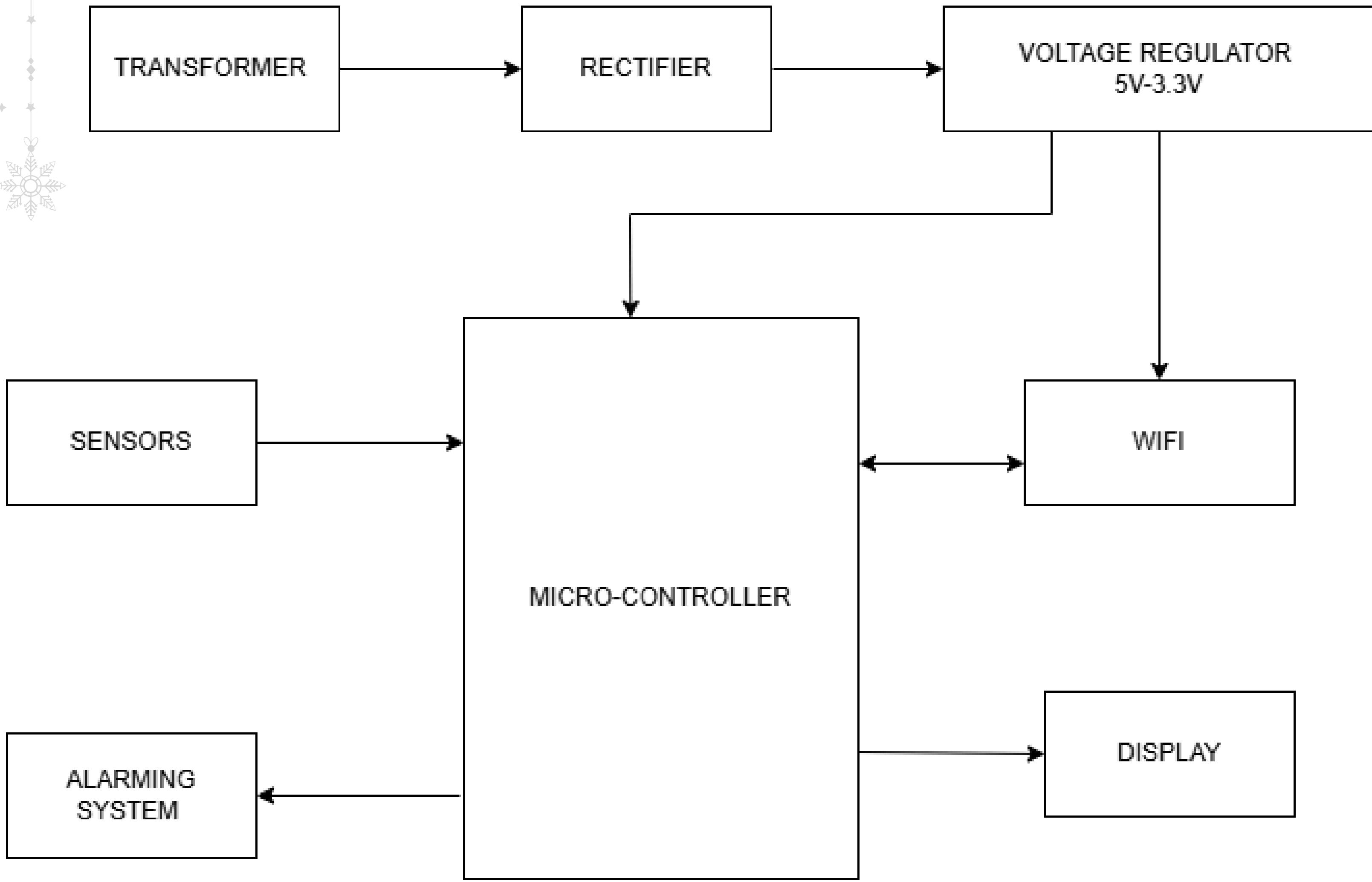
WHAT ?

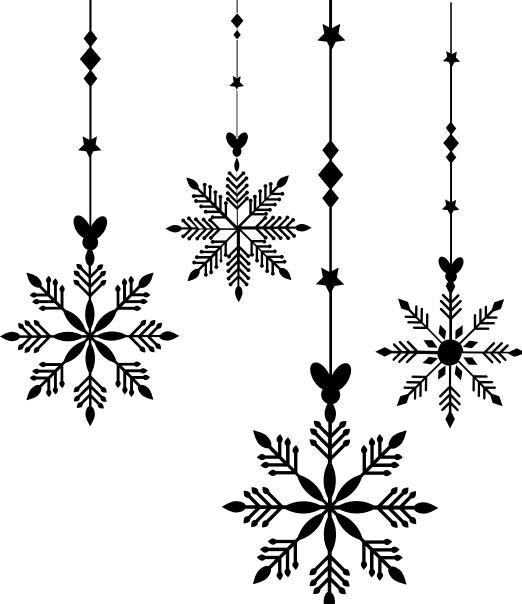
AirSential is a smart device that monitors air quality, detects gas leaks, and ensures safety through real-time alerts.

Equipped with advanced sensors, it measures pollutants like PM_{2.5}, CO₂, and VOCs, while detecting combustible gas leaks. Integrated with a mobile app, it provides instant notifications, personalized recommendations, and smart home compatibility, offering a safer and healthier environment for homes and workplaces.









INPUT

SENSORS

The microcontroller will interface with sensors and **read sensor data** periodically with the help of ADC converter.

DATA STORAGE

It will process the sensor data, perform necessary calculations, and potentially filter or smooth the data to ensure it is accurate and reliable.

Processing

Monitoring

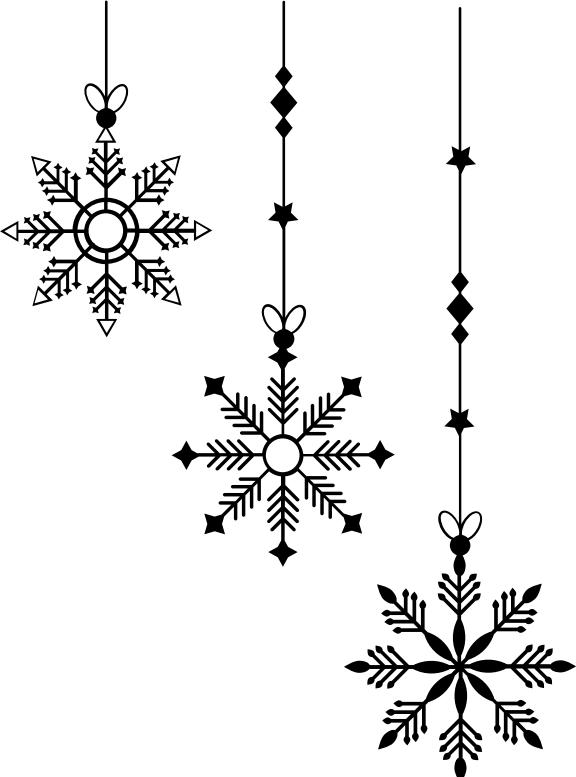
USER INTERFACE

- It will manage the UI to display current air quality data, trends, or warnings. It will also handle user inputs, such as buttons or touch screens, allowing the user to change settings or view different types of data.

COMMUNICATION

It will be connected to a wireless network, enabling communication with other devices or cloud platforms which will transmit data to cloud
the microcontroller might trigger actions based on sensor readings.

Decision-Making

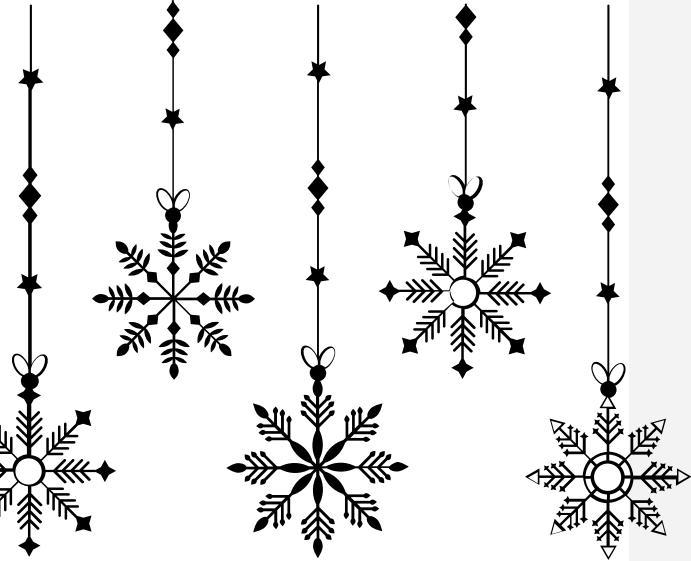


HOW ?

To successfully promote Airsential, a multi-channel approach is essential. The strategy involves leveraging digital marketing through targeted social media campaigns, SEO, and influencer partnerships to build awareness.

Collaborations with smart home companies and healthcare organizations can broaden the product's reach, while live demonstrations and webinars help engage and educate potential customers on the device's benefits.

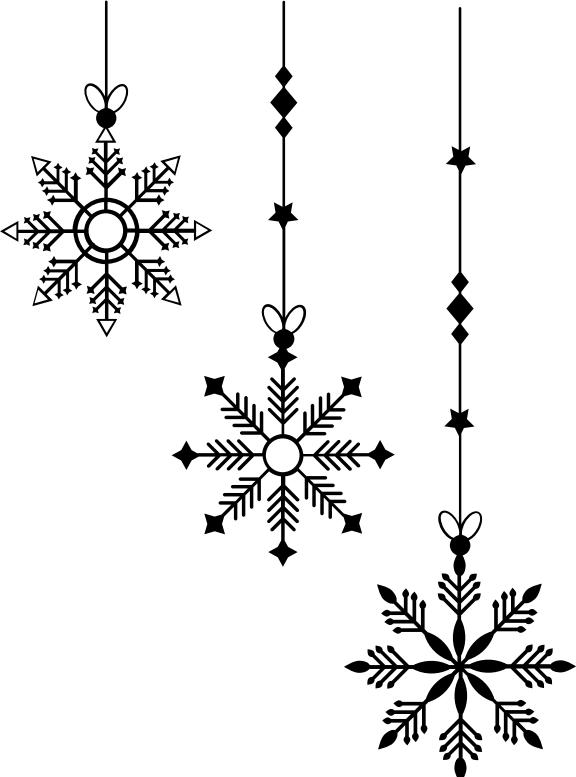
Encouraging customer testimonials and offering discounts or referral programs will drive adoption and enhance trust.



PROMOTION STRATEGY

- 1. Targeted Digital Marketing - Social Media Campaigns**
- 2. SEO & Content Marketing - Influencer Marketing** Create awareness and drive traffic to product website.
- 3. Partnerships & Collaborations - Work with Healthcare Organizations and NGOs** Expand reach and build credibility through trusted partners.
- 4. Product Demonstrations & Webinars - Organize educational webinars** on air quality and gas safety Engage customers and showcase product features.
- 5. Customer Testimonials & Reviews - Collect and share user testimonials**, Showcase positive reviews and case studies Build trust and social proof.
- 6. Discounts & Promotions - Launch limited-time discounts or bundle offers**, Implement a referral program Encourage early adoption and word-of-mouth marketing.

Key Partners	Activities	Resources	Value Propositions
Sensor suppliers	R&D, product development	AirSential hardware, cloud services	Monitor air quality and gas leaks
Cloud providers	Marketing & sales	Sensors, IoT devices	Real-time alerts and emergency response
Manufacturers	Customer support	Data infrastructure	Health and safety improvement
Retailers	Regulatory compliance	Development team	Improve air quality in homes, offices, and industries



WHO?

Airsential is designed for individuals and households concerned about indoor air quality, gas leaks, and respiratory health.

The product is ideal for:

1. Homeowners
2. Families
3. Health-conscious Individuals
4. Smart Home Enthusiasts
5. Businesses & Offices
6. Environmental and Safety Advocates

By targeting these groups, Airsential can provide enhanced air safety and quality, becoming an essential part of daily life for those who prioritize health and environmental well-being.

Customer Segment	Needs & Pain Points	Motivation for Buying	How AirSential Can Help
Homeowners	Concerns about indoor air quality (e.g., allergens, pollutants)	Health and safety of family members, asthma or allergy management	Monitors air quality (PM2.5, CO2, VOCs), alerts for harmful gases
Businesses/Offices	Need to ensure employee safety and comply with health regulations	Compliance with health & safety standards, creating a comfortable work environment	Real-time air quality monitoring, data reports for compliance
Schools/Colleges	Ensuring a safe and healthy environment for students and staff	Compliance with educational health standards, improving air quality	Monitors air quality for classroom and common areas
Healthcare Facilities	Maintaining a high-quality environment for patients (e.g., ICU, labs)	Protecting vulnerable individuals (e.g., asthma patients, elderly)	Monitors air quality, detecting harmful gases for better patient care
Industrial Facilities	Need to monitor workplace hazards like gas leaks or poor air quality	Compliance with workplace safety regulations, preventing accidents	Gas leak detection, air quality monitoring in hazardous areas
Smart Cities	Environmental data collection, improving public health and safety	Monitoring and improving city-wide air quality	Integrates into smart city infrastructure, public health monitoring
Environmental Agencies	Tracking pollution levels for regulatory compliance	Data for environmental impact reports, public awareness	Real-time and historical air quality data, extensive monitoring



Thank You !