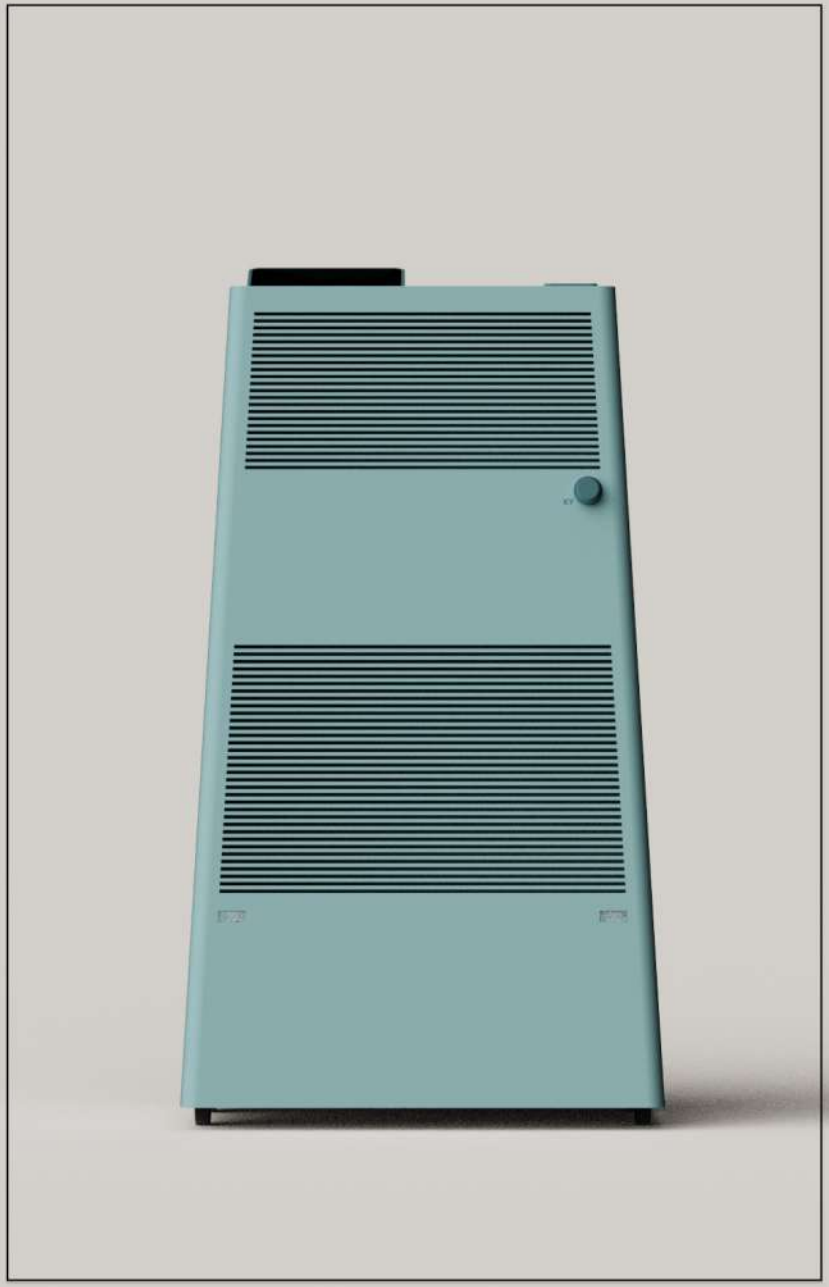
SUSTAINABLE DEVELOPMENT GOALS

KYO



Subtle Automation,
Clear Spaces

Air We Depend On

The UN's Sustainable Development Goals (SDGs) address global challenges by 2030.

What's SDG 11?
Focuses on making cities inclusive, safe, resilient, and sustainable. **Urban air quality is critical under this goal.**

Impact of Cities
While occupying **3% of Earth's total land**, cities account for 60-80% of global energy consumption and **75% of greenhouse gas emissions.**

Key Insights

Indoor Air Pollution is a Hidden Threat: Indoor air pollution can be 2-5 times more hazardous than outdoor air.
[Prolonged exposure to indoor pollutants leads to respiratory diseases, cardiovascular issues, and asthma]

Vulnerable Groups at Higher Risk: Housewives, children, and the elderly are most exposed to indoor pollutants, spending most of their time in affected environments.
[**Housewives, who spend 90% of their time indoors, are at high risk** from cooking fumes, dust, and chemicals]

Reasons for Air Pollution in Delhi

Delhi's air pollution stems from various sources, specifically six major categories including industries, waste disposal, transport dust, domestic cooking, waste burning, and diesel generator sets. Among these, waste burning and transport are the primary contributors to the city's air pollution. Recent news and reports from 2021 highlight the staggering number of registered vehicles in Delhi, totalling 1.50 crores. This influx of vehicles necessitates proper maintenance and regular Pollution Under Control (PUC) checks for individuals.

Cigarette smoke produces 10 times more air pollution than diesel car exhaust

Lancet study: Pollution killed 2.3 million Indians in 2019

18 May 2022

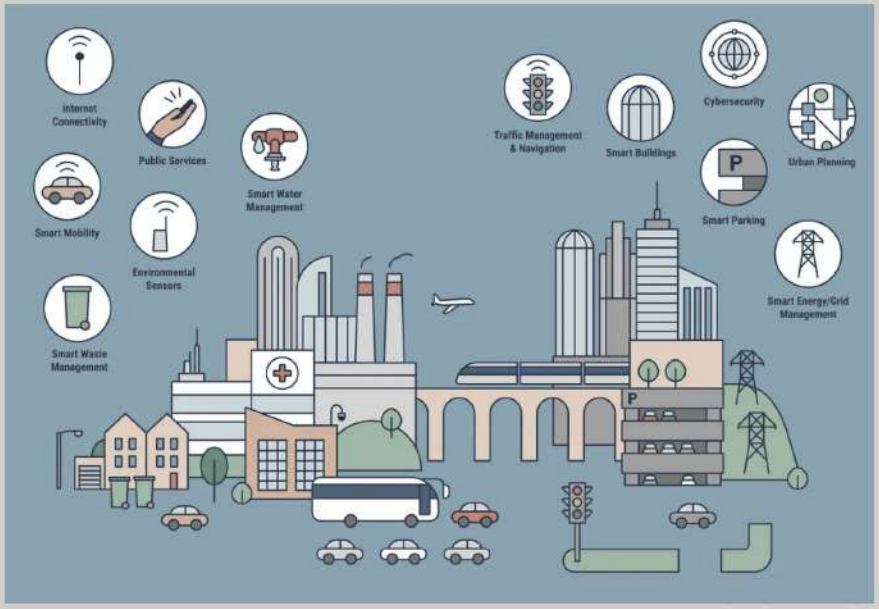
Indians have 30% weaker lungs than Europeans: Study

Over a million Indians die prematurely every year due to air pollution, according to the non-profit Health Effects Institute.[10] Over two million children—half the children in Delhi—have abnormalities in their lung function, according to the Delhi Heart and Lung Institute.[10] Over the past decade air pollution has increased in India significantly. Asthma is the most common health problem faced by Indians and it accounts for more than half of the health issues caused

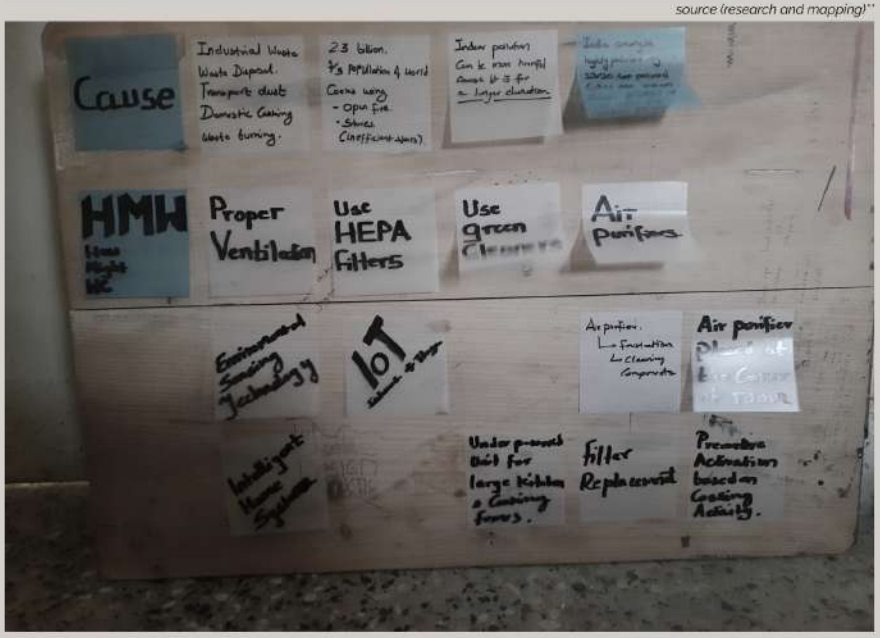
*Research Document link provided.***

HMW

Technical Aspects	Traditional Methods
Intelligent Home Systems	Proper Ventilation
Environment sensing technology	Use HEPA Filters
IoT	Air Purifier



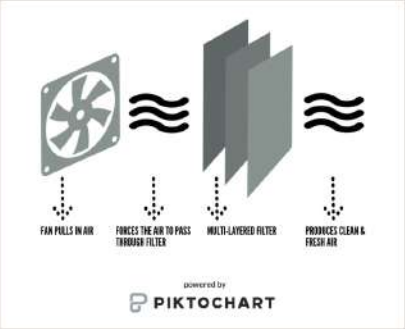
*source (research and mapping)**

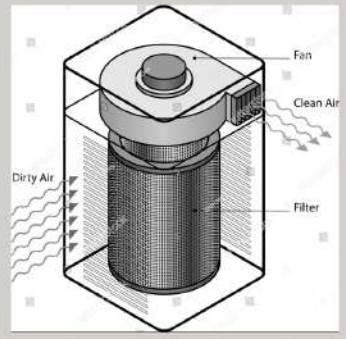


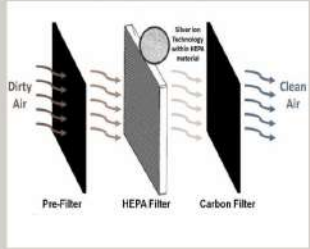
User Frustrations with Air Purifiers

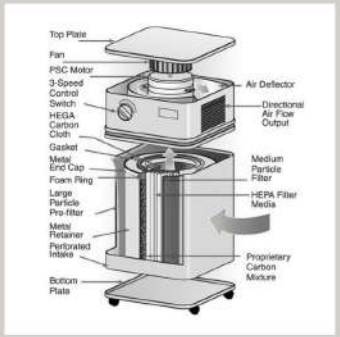
1. **Placement Problem:** Users find it challenging to position air purifiers in a way that maximizes airflow and effectiveness.
2. **Filter Maintenance:** Forgetting to replace filters regularly reduces the purifier's efficiency, leading to lower indoor air quality.
3. **External Airflow Disruption:** Open windows and doors allow polluted outdoor air to quickly re-enter, nullifying the purifier's effect.
4. **Noise Disturbance:** The sound level of purifiers on higher settings often disrupts the peace, especially in quiet spaces.

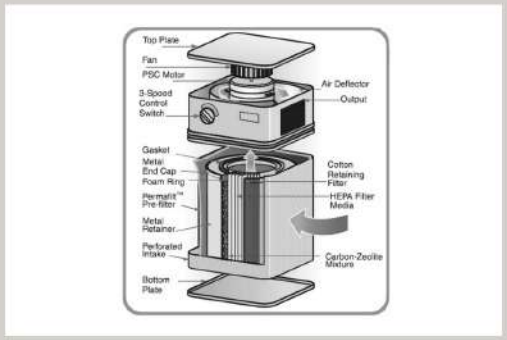
Assembly Reference







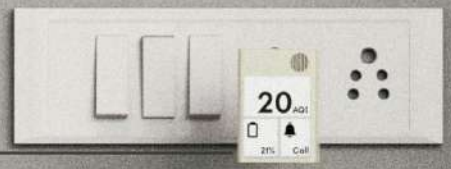




Kyo

Smart air purifier that autonomously monitors and purifies indoor air, ensuring clean air without requiring constant user attention.

Modules



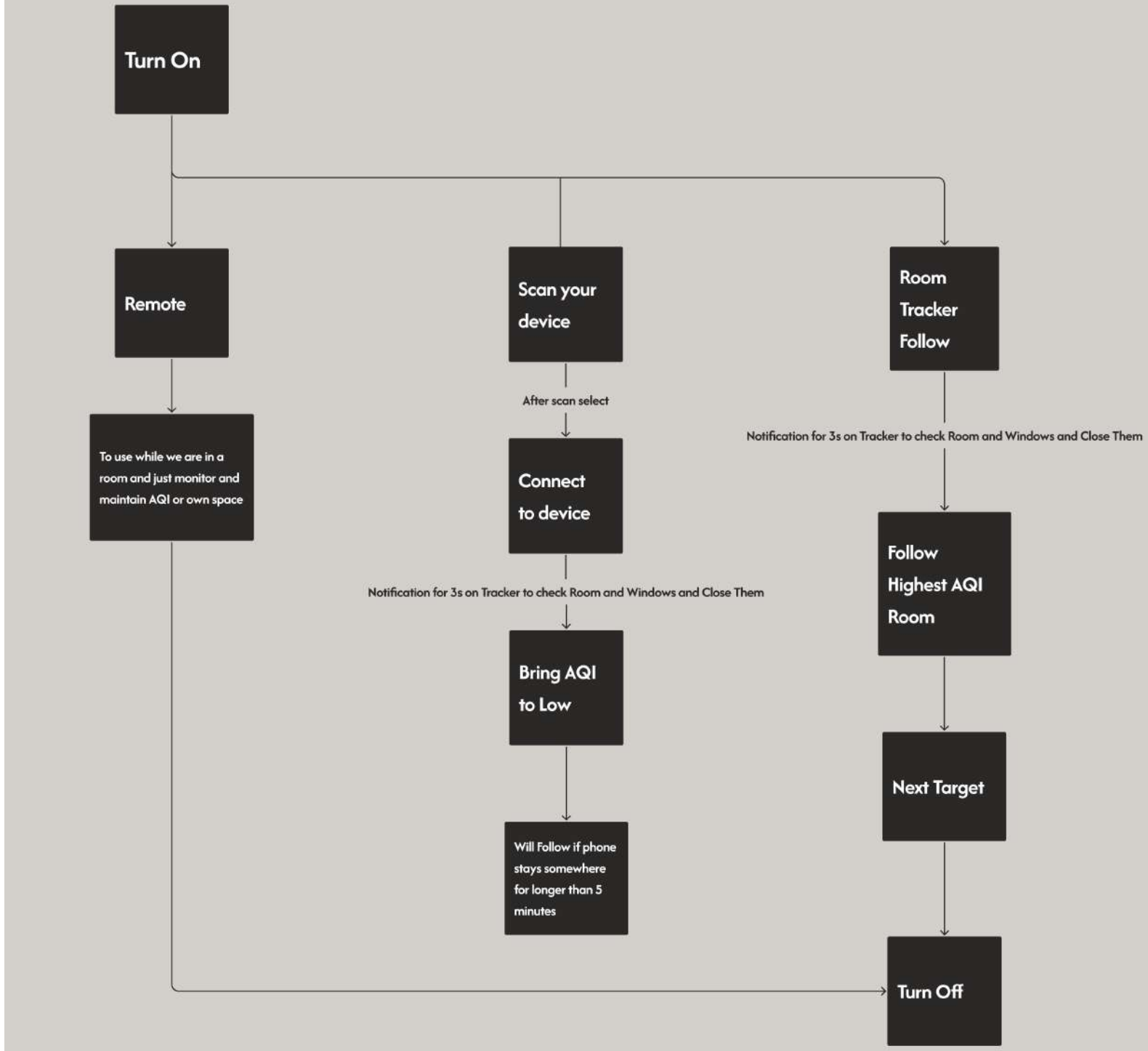
Air Nodes

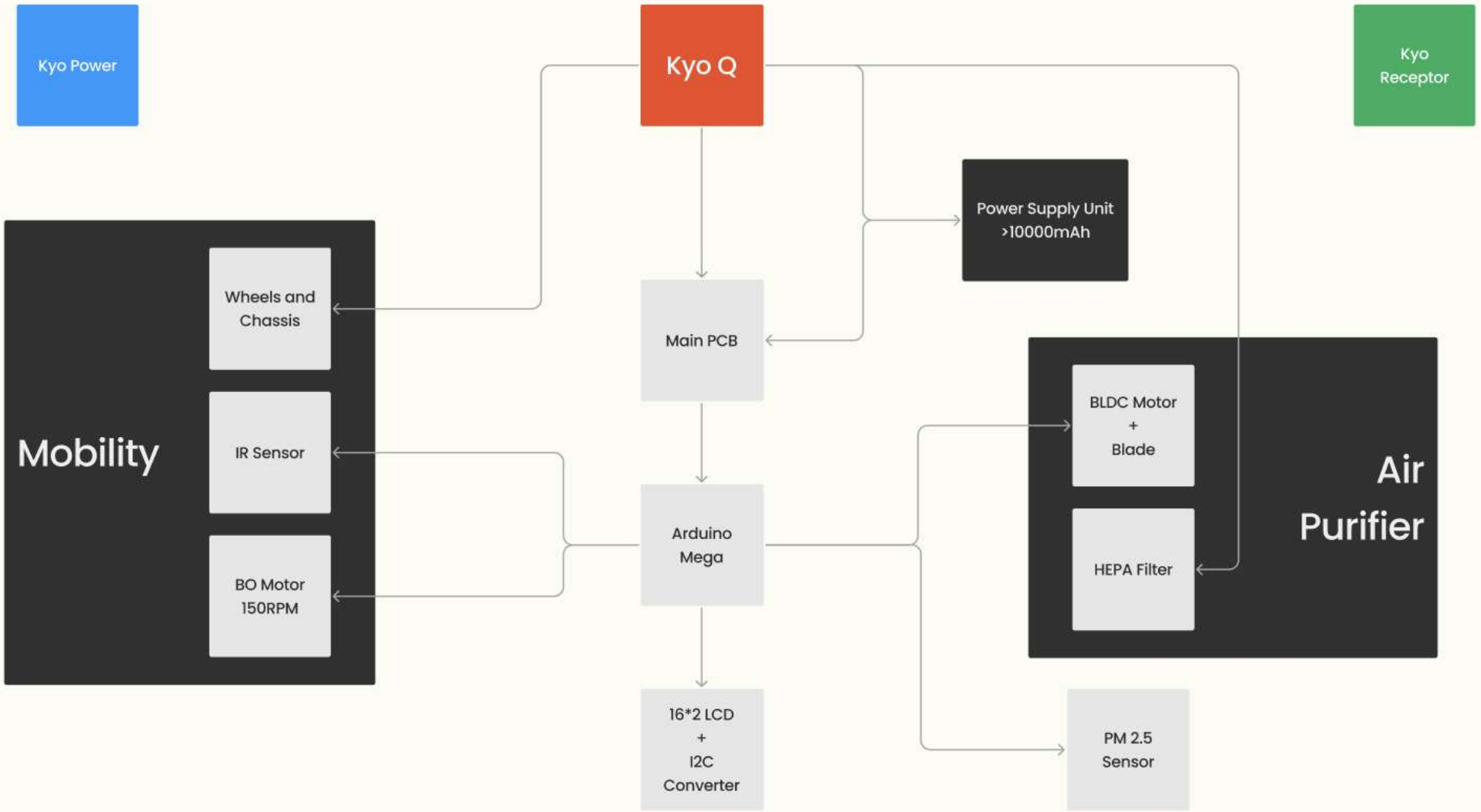
Room-installed sensors that continuously monitor AQI, sharing real-time data with Kyo via IoT.

Kyo

The central air purifier that moves autonomously, responding to Air Node data and user schedules to purify each room as needed.


20 AQI
21%
Call


Turn On
Remote
To use while we are in a room and just monitor and maintain AQI or own space
Scan your device
After scan select
Connect to device
Notification for 3s on Tracker to check Room and Windows and Close Them
Bring AQI to Low
Will Follow if phone stays somewhere for longer than 5 minutes
Room Tracker Follow
Notification for 3s on Tracker to check Room and Windows and Close Them
Follow Highest AQI Room
Next Target
Turn Off


Kyo Power
Kyo Q
Kyo Receptor
Power Supply Unit >10000mAh
Mobility
Wheels and Chassis
IR Sensor
BO Motor 150RPM
Main PCB
Arduino Mega
16*2 LCD + I2C Converter
BLDC Motor + Blade
HEPA Filter
Air Purifier
PM 2.5 Sensor