How can I make my air purifier smart/efficient?

Air purifiers offer a valid solution to the air pollution threat. Improving their performance will improve the quality of our health and lives.

Breathing clean air is essential and a demand for clean air has grown among many people who value healthy living. Air purifiers are able to filter particles, pollen, allergens, bad smells and volatile organic compounds from indoor air. However, not all of these pollutants are instantly perceived by humans.

Air quality can be thus substantially improved by monitoring the air with the help of appropriate sensors which help to “visualize” pollutants. Modern, cutting-edge sensing technology generates real-time data and insights about indoor air quality. This can be a powerful tool for the user to connect their daily actions and habits with the sources of bad air events and to remove these sources accordingly. Additionally, it allows air purifiers to automatically react to bad air events, avoiding long exposure to the pollutants.

Smart and efficient sensing results in savings of energy and maintenance costs by enabling air purifiers to be active only when pollutants are present. This results in safety (pollutants are detected and removed), energy savings (no unnecessary operation) and comfort (no need for manual control and no unnecessary noise from constant operation). It serves as an essential basis for improving the health, well-being and productivity of users. Of course, cloud-connected remote monitoring and visualized dashboards further enhance usability for users as well as tenants, owners or real estate companies.

Cutting-edge sensor technology helps to improve indoor air quality.

Sensirion’s environmental sensors are able to detect the most important pollution indicators to provide a complete picture of the indoor air quality situation, such as particulate matter (PM), relative humidity and temperature (RH&T), volatile organic compounds (VOCs), oxidizing gases (NO_x), carbon dioxide (CO_2) or formaldehyde (HCHO). The sensors help highlight the need for a collective approach to the challenge of indoor air quality.

Sensirion offers reliable and innovative solutions for comprehensive management of indoor air quality to be implemented in public or private spaces. These smart sensors are characterized by their ease of use, digital communication interfaces and proprietary algorithms, which allow for the collection of high-quality data. The collected data can then be shared and presented visually.

Integrating Sensirion’s sensors into air purifiers results in higher efficiency and quality in cleaning the air.

The combo module SEN5x allows PM, VOCs, NO_x and RH&T to be measured through one platform; thanks to proprietary algorithms, the module enables straightforward integration into various applications. This saves valuable project time and personnel resources.

The progress in sensing technology has allowed us to achieve extraordinary performance and the best thing is using them to improve the quality of the user’s life.

Further reading

Indoor air quality

SENSIRION