

HAVEN

Indoor Air Monitor

The air quality professional for your home.

BACKGROUND

The largest comprehensive study of residential indoor air quality (IAQ) to date looked at 34 homes in Hong Kong.

The result of this research was that on average, homes contain 2–10x more pollution than recorded outdoors. Out of these results there were massive variabilities from one home to another.

We spend ~90% of our time indoors, so making sure our families are living in healthy environments is important.

Now, imagine working with an air quality professional to identify potentially harmful pollution in your home, discover the sources, and make improvements.

Not only would you be trying to make your home a healthier environment for your family, you would also be contributing to a global movement to increase our knowledge of air quality and its importance to our planet.





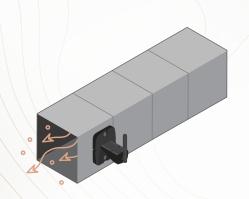




WHAT CAN IT DO?

Haven lives in your home's central air system and monitors the air throughout your home 24/7. As it tracks the air, it sends you email reports with the most important trends happening in your home.

These email reports are interactive, so you can click through into your web/mobile account to solve issues and learn more about how to optimize your environment.



HOW DOES IT WORK?

Haven is professionally installed in your heating, ventilation and air conditioning (HVAC) system, commonly known as a central/forced air system. After purchasing Haven, you set up a scheduled time for a local trusted HVAC service technician to come to your home and complete the installation in less than 30 minutes.

By monitoring the air in the return duct of your home, before your furnace and air filter, Haven is able to detect air pollution that is traveling through your entire home.

Haven can monitor your environment (temperature, humidity, air flow, and pressure) as well as air pollution including chemicals (VOCs, such as formaldehyde) and harmful micro particles (commonly known as PM2.5) which contribute to allergies, asthma, and other medical conditions or general irritations like itchy eyes and throat.

Every home's air is unique, what story will yours tell?

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DETECTION

PARTICLES

Laser light scattering technology

Size: 0.3µm-10µm

Resolution: PM2.5, PM10 Concentration: 1 µg/m³ to

200µg/m³

Accuracy: 80% (*R² compared to

OPS instrument readings)

CHEMICALS (tVOC)

Range: 0–1000ppb

TEMPERATURE

Range: 0-50 °C / 32-122 °F

Precision: ±1°C / 33.8°F

RELATIVE HUMIDITY

Range: 5–95%

Precision: ±3%

AIR FLOW

Range: 0-5m/s

Resolution: 0.1m/s

Precision: ±5% 1

CO₂

(Equivalent based on VOC)

Range: 0-700ppb

PRESSURE

Range: 80–120kPa

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DESIGN

APPEARANCE

Glossy PC ABS plastic housing Embossed graphics; colour stamped and laser etched artwork

MOUNTING PLATE DIMENSIONS

2.6" x 3.3" x 0.6" 26g / 0.9oz

PROBE DIMENSIONS

8.6" x 1.2" x 0.9" 71g / 2.45oz

LED SIGNALS

Blue: ready for configuration

Green: connected to WiFi and transmitting data to the cloud

Orange: WiFi not connected

Red: WiFi connected, data not

streaming to the cloud

GENERAL

CERTIFICATIONS

FCC ID: ZW5009

PATENTS

Patents pending

WARNING

Do not disassemble device FCC Part 15

REQUIREMENTS

INSTALLATION

Positioning divots for 6-8" ducts

Min. 1' away from corners

Directional air channels perpendicular to air flow

Angle of device relative to air flow

needs to be <10°

CONNECTIVITY

WiFi: 802.11 b/g/n

Connectivity: WPA / Open

Communication interval:

1x per minute

DATA ACCESS

Email reports: daily, weekly,

bi-weekly or monthly

Web portal: user account and

data repository

POWER

Wired: 24V AC; 14-22AWG

Peak current consumption: 0.08A

Average current consumption: 0.06A

Peak power consumption: 2W

OPERATING CONDITIONS

Temperature: $-5-50 \,^{\circ}\,\text{C}$ / 23–122 $^{\circ}\,\text{F}$

Humidity: 0–95% non-condensing

LASER RADIATION

DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS

CLASS 1M LASER PRODUCT

IEC60825-1

This product complies with 21CFR1040.10 performance standards for light emitting products as a Class 1 laser system