



# UV AIR DISINFECTION SOLUTION



**AIRBORNE Diseases** are caused by pathogenic microbes small enough to be discharged from an infected person via coughing, sneezing, laughing and close personal contact or aerosolization of the microbe. The discharged microbes remain suspended in the air on dust particles, respiratory and water droplets. Illness is caused when the microbe is inhaled or contacts mucus membranes or when secretions remaining on a surface are touched.

**Environmental controls and engineering alternatives** help reduce transmission of water droplet aerosolized pathogens.

## Why LumenAire ?

Air Purifiers only trap bigger particles in the air. Anything less than 0.3 microns like Virus and Bacteria can pass thru these filters. The LumenAire has both a HEPA / Carbon filter and a powerful dual 254nm UV emitter that performs as a UVGI (Ultraviolet Germicidal Irradiation) Filter to disable the RNA of Virus and Bacteria as it passes through an elongated chamber for maximum exposure time. It is designed to be sleek and stylish to fit any interior space.

**The LumenAire is an essential device in our fight against COVID-19**

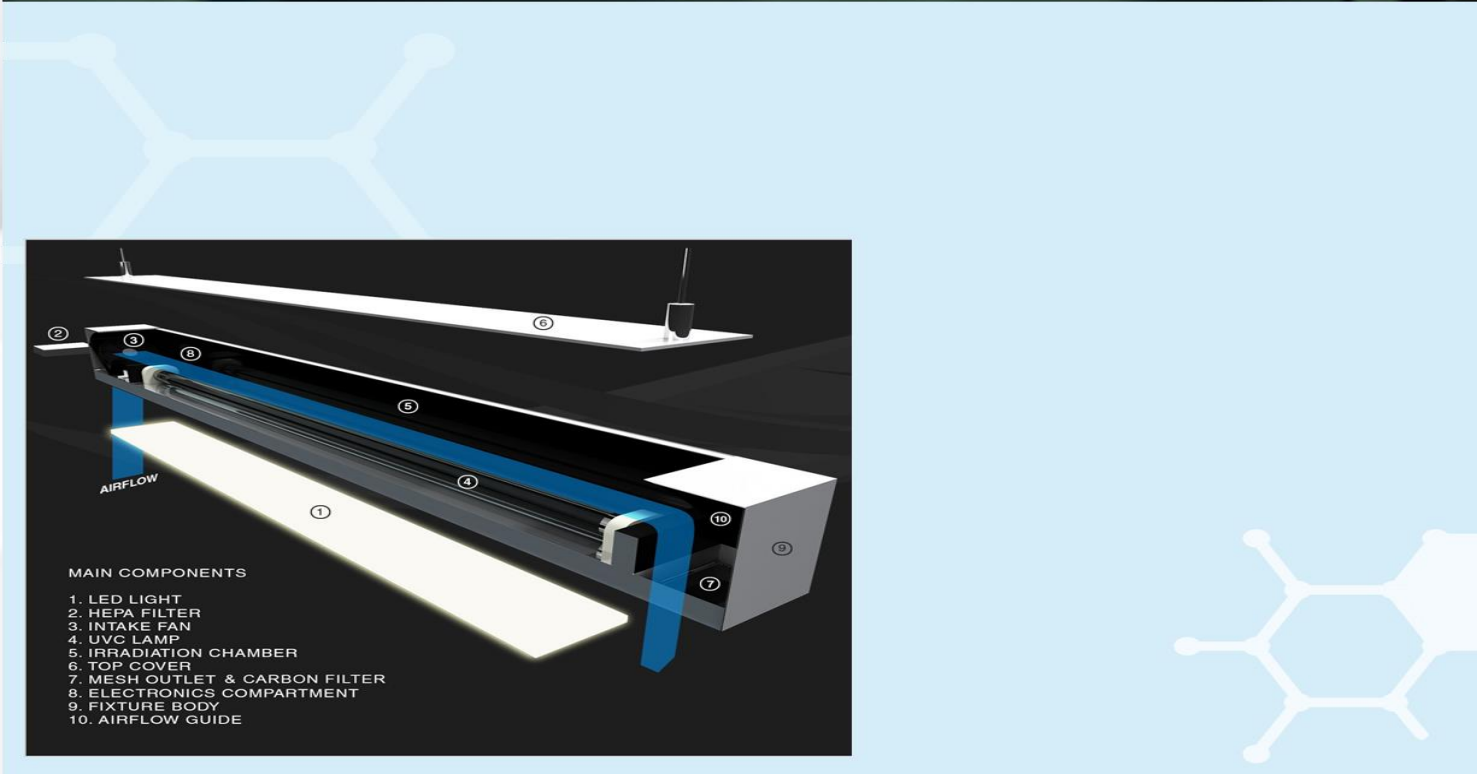




## THE POWER OF UVC LIGHT

Germicidal UV light has been used in the treatment of tuberculosis and to disinfect hospitals, kitchens, meat processing plants, and laboratories. UV air disinfectants are designed to use short-wave ultraviolet light (UVC light) to inactivate airborne pathogens and micro-organisms like molds, bacteria, and viruses. They have the same goal as that of other air purifiers which are to reduce indoor air pollutants.

On the market, UVC air disinfectants are currently sold as systems installed into pre-existing residential or commercial HVAC and re-circulating units. As air is forced through the device, it passes through the UVC lamps, which directly disinfect the air by means of (UVGI) ultraviolet germicidal irradiation. UV Air Disinfectants are known to work better than normal particle filter purifiers when it comes to nasal allergic reaction and asthma prevention.





# PRODUCT FEATURES



## SAFE & SHIELDED

UV lamp in an enclosed chamber, it can be used on occupied space



## DUAL FUNCTION

Lighting Fixture + UV Air Purifier



## INVISIBLE DISINFECTION

Disinfects the air without the clutter and distraction



## TRIPLE FILTER SYSTEM

Washable Pre-filter, HEPA for dust, dander, pollen, smoke and Activated Carbon to eliminate odor and VOC.



## PHILIPS TUV GEARS

The engine that drives our UV system is powered by Philips professional TUV lamps and drivers.



## SILENT FAN

We have a custom-engineered fan system to ensure silent operation even on high speeds.



## DUAL UVC LAMP

Double-barrel UVC Emitter in a long enclosed irradiation chamber

# THE MOST POWERFUL UV AIR DISINFECTION AVAILABLE



## BASIC DEVICE |ALU-6063

The LumenAire BASIC is an affordable entry-level plug and go UV Air Disinfection device which is meant for general use in smaller spaces. It can easily be mounted to the wall or put on top of hard surfaces like cabinets, shelves, or a ledge.

Its sleek and minimalist design can integrate seamlessly with any modern contemporary interior space. The LumenAire BASIC will be the first full-fledged UVGI Air Disinfection device that you can put in your home or office.



## WALL MOUNT UNIT |ALP-2026

This Wall-mounted UV Air Sterilizer is the best solution for spaces that requires the most powerful disinfection ever. Ideal for hotels, hospitals, clinics, schools, offices, restaurants, retail, and even homes.

Simplified operation and maintenance is a breeze as its cabinet-type form functions allow a door opening to safely and easily access the filter and UV lamp for replacement.

\*Coming soon will be the convertible Air + Surface disinfection device.



## TROFFER TYPE |TLP-2025

The Troffer Light Purifier is meant for office and commercial use. It can be used both recessed or surface mounted and would be ideal on areas where there is a high concentration of human traffic and where people are mostly present for long periods of time.

The LumenAire™ air purification device is hidden on the troffers and is barely visible from the outside. It is perfect for workplace settings as it can help eliminate office acquired infections caused by bacteria and viruses carried by people on the day to day basis.



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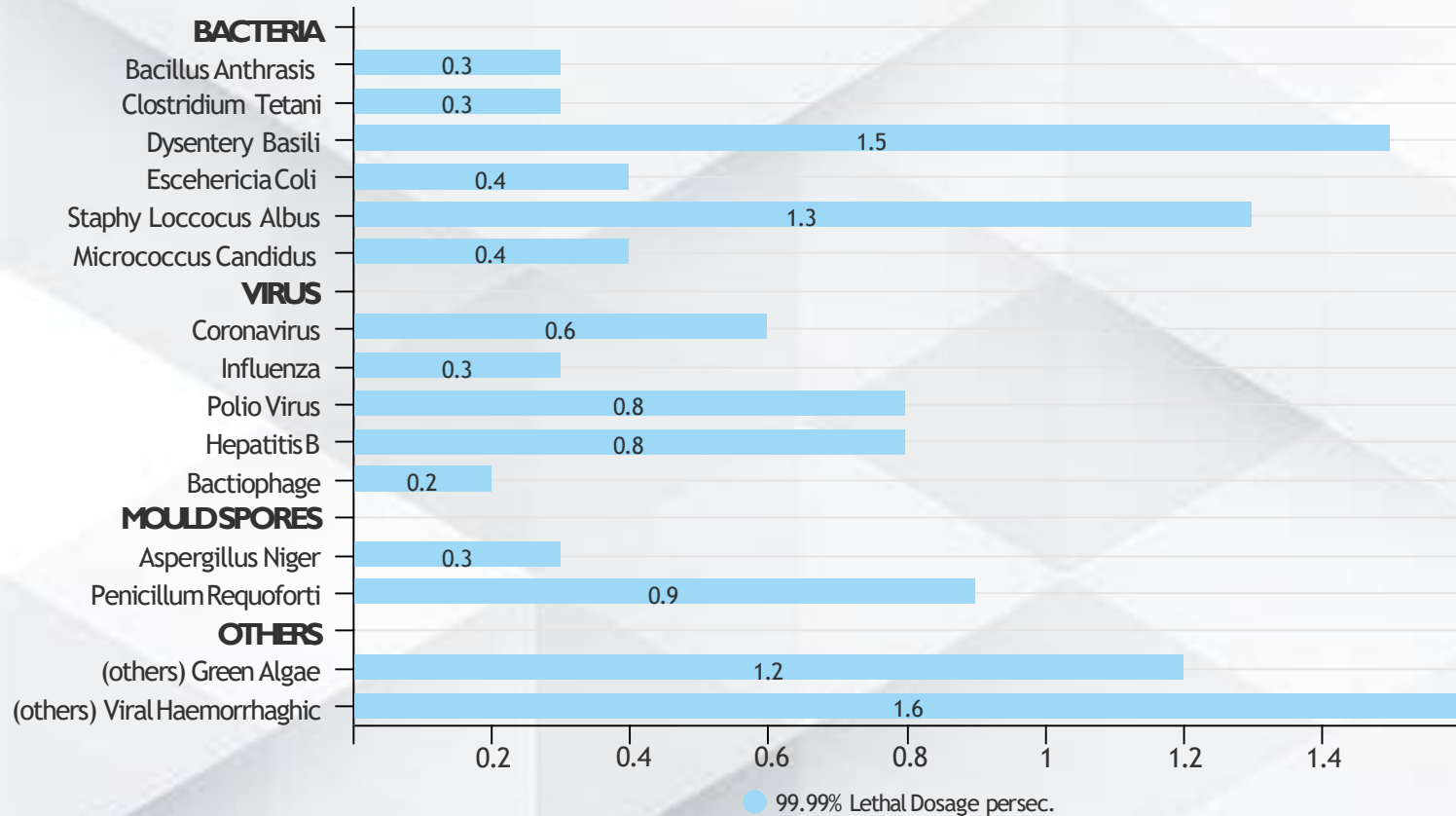
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# THE LUMENAIRE ADVANTAGE

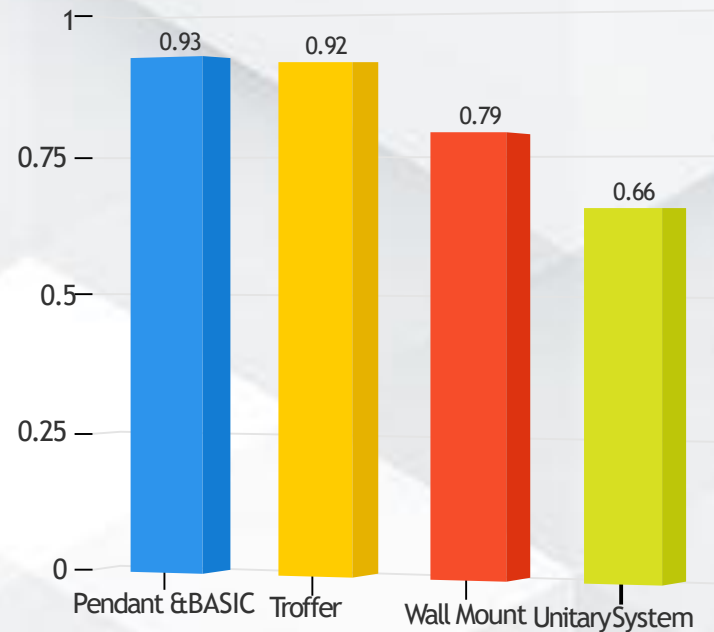
The LumenAire™ UV Air Disinfection device performs better than the traditional way of integrating UVC light into an HVAC system. It pushes contaminated air to thru the lighting fixtures integrated germicidal irradiation chamber equipped with a HEPA and Carbon Filter an Ozone-free 253.7 nm UVC lamp efficiently killing 99.9% of harmful viruses, bacteria and fungi in seconds before releasing the filtered air back to the atmosphere. This method is repeated over time and the multi-pass circulation ensures that a steady flow of clean disinfected air is always present in an indoor environment. The LumenAire™ is also known to work well in eliminating HCOC & TVOC, therefore, performs better than particle filter-based air purifiers in preventing nasal allergic reaction and asthma.



# UV-C IRRADIATION / KILL TIME

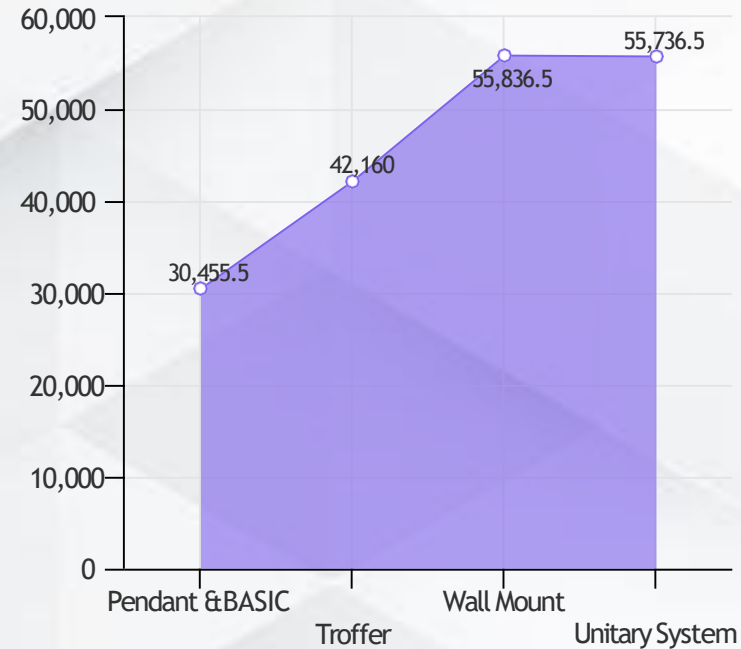


## EXPOSURE TIME



● Exposure Time in Seconds

## UV INTENSITY



● in uW/cm<sup>2</sup>

### What is the UVC dose for killing or disabling the COVID-19 virus?

Because the COVID-19 virus (SARS-CoV-2) is so new, the scientific community doesn't yet have a specific deactivation dosage. However, we know the dosage values for comparable viruses in the same SARS virus family are 10-20 mJ/cm<sup>2</sup> using direct UVC light at a wavelength of 254nm; this dosage will achieve 99.9% disinfection (i.e., inactivation) under controlled lab conditions. In real-life, the virus is often hidden or shaded from direct UVC light, reducing UVC's effectiveness. To compensate, researchers are applying dosages of 1,000 - 3,000 mJ/cm<sup>2</sup> to ensure 99.9% deactivation. [Source: IUVA.org website](https://www.iuva.org/)

# UV AIR DISINFECTION FACT SHEET

Model	Airflow	CFM	(Et)	UV Lamp	UV Intensity	UV Dose	ACH	ZPF-1	ZPF-2	Fan Sound
	mts/s	ft3/min	in secs.	Quantity	uW/cm2	J/s.m2	(X)	100 sq.ft	300 sq.ft	in Dba
Pendant & BASIC	1	14.9	0.93	2	30455.5	283.2	1X	100%	80%	45
Troffer Light	1	57.2	0.92	3	42160.0	387.9	3X	100%	90%	48
Wall Mount	1.2	102.9	0.79	4	55836.5	441.1	6X	100%	100%	52
Unitary System	1.5	399.4	0.66	4	55736.5	367.9	23X	100%	100%	60

## Legend

**CFM**- Cubic Feet per Minute (Based on Chamber Size)

**Et**- Exposure Time in seconds

**ACH**- Air Change per Hour (Based on 100sq.ft x 10 feet area)

**ZPF**- Zonal Protection Factor of the Device

\*UVC Lamps are tested based on 30-55W Philips TUV Lamp & Ballast



# TECHNICAL DIMENSION & SPECIFICATIONS

	Pendant & BASIC	Troffer	Wall Mount	Unitary System
Length	1200mm	1200mm	Depth-125mm	1200mm
Width	120mm	600mm	500mm	200mm Dia
Height	150mm	130mm	1200mm	200mm Dia
Weight	9.8kg / 8Kg	16kg	20kg	18kg
Color	White or Black	White & Black	White & Black	White
Housing	Powder-coated aluminum	Powder-coated steel & aluminum combination	Powder-coated steel & aluminum combination	Powder-coated aluminium
LED Light	LED - Cool White  None for BASIC	Panel LED - Daylight	None	None
UVC Lamp	2 x Philips TUV & Ballast	3 x Philips TUV & Ballast	4 x Philips TUV & Ballast	4 x Philips TUV & Ballast
Pre-Filter	Washable Mesh	Light Carbon sponge	Light Carbon sponge	None
Inlet Filter	HEPA - MERV 13	HEPA - MERV 13	HEPA - MERV 13	None
Outlet Filter	Activated Carbon	Activated Carbon	Activated Carbon	None
Fan	Centrifugal Blower	1X Crossflow Blower	2X Crossflow Blower	Circular Blower
Controller	Wall switch  In-Wire	Wall switch	Built-in unit	Wall switch
Power	220-240V 50/60 Hz	220-240V 50/60 Hz	220-240V 50/60 Hz	220-240V 50/60 Hz

## Replaceable Parts;

- a. HEPA - MERV13 Filter (every 4 months)
- b. Activated Carbon Filter (every 4 months)
- c. Washable Mesh ( every 3 months)
- d. UVC Lamp - 9000hrs (2 years)

## Product Warranty;

2-years for Fixture  
1-year for Philips UV lamps & ballast

# FEEL SAFE AND STAY SAFE

## THANK YOU



Our showroom :  
**EXSTO MALAYSIA SDN BHD**  
Suite B-3A-01, Ativo Plaza @ Damansara Ave  
No.1, Jalan PJU 9/1 Persiaran Perdana,  
Bandar Sri Damansara,  
52200 Kuala Lumpur  
<https://www.exsto.asia/>  
T : +603 6262 8669 F: +603 6261 2888

Download our mobile app  
**UVAir Calculator**



Available now!





PROPOSAL:

# UVGI AIR DISINFECTION

THE  
LUMENAIRE IAQ SOLUTION



EXSTO™



“PREVENTION IS BETTER THAN CURE”





# WHAT IS UVGI AIR DISINFECTION?

Is a Function of UV Intensity &  
Exposure Time



**UPPER ROOM**

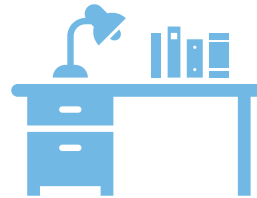


**RECIRCULATION  
UNITS**

## KEY BENEFITS OF UV AIR DISINFECTION



**Improves (IAQ) Indoor Air Quality of the space by eliminating Airborne Pathogens like Virus (coronavirus), Bacteria and Fungi in the air for up to 2-4 times per hour**



**Eliminates Airborne Pathogens from circulating and landing on surfaces**



**Reduce the risk of acquiring disease from carriers or infected persons by continuous air disinfection**



## THE LUMENAIRE ADVANTAGE



The UVC Light is **SHIELDED** that means it is enclosed in an Irradiation Chamber, therefore avoiding contact with the eyes and skin.



It is **SAFE** to use on Occupied Spaces.



It serves as **DUAL FUNCTION** both as a “Light Fixture and UV Air Purifier System” (That means no extra clutter) perfect for commercial spaces where a separate Air Purifier will occupy extra space and operation.



**HIDDEN** from sight, that means Air Disinfection & Purification is always being performed even without noticing it.



# LUMENAIRE vs AIR PURIFIERS

	LumenAire	Air Purifier		
Functions			Remarks	LumenAire Advantage
Air Filtration	Yes	Yes	Method: Pre-Filter, HEPA & Carbon	None
Air Purification	Yes	Yes	Method: Pre-Filter, HEPA & Carbon	None
Air Disinfection	Yes	No	Method: UVGI in a shielded chamber	Disable DNA of Virus, Bacteria and Fungi
UV Lamp	Yes	Yes	Most Air Purifier that install UV lamp use 7W to 15W	Dual Philips TUV-T8 30-55W, Lamp is Parallel to the Airflow
UV Intensity	Powerful	Weak	Not Recorded	30,000 uW/cm2
Casing	Metal	Plastic	Powerful UV makes plastic brittle overtime	Can withstand Powerful UV rays in shielded chamber
Exposure Time	0.9 secs	No Info	Long-form factor casing	Longer Exposure Time
IAQ Effectivity	Yes	Yes	Limited Efficiency	Including airborne pathogens
UV Safety	Yes	Yes	Enclosed Inside Unit	Enclosed in Aluminum casing with no UV light leak visible



**Air Purifiers**

According to: US-CDC (Centres for Disease Control)

# KEY COMPONENTS OF UVC AIR DISINFECTION

## PRESSURE

## FILTRATION

## PURIFICATION

## DILUTION

HEPA & CARBON

SILENT BLOWER

254nm HIGH  
INTENSITY UVC LAMP

ENCLOSED  
REFLECTIVE COATED  
IRRADIATION  
CHAMBER

CALCULATED  
AIRFLOW for (Et)  
EXPOSURE TIME &  
CLEAN AIR DELIVERY

**FILTER**

**FAN**

**UV LIGHT**

**CHAMBER**

**AIRFLOW**



Actual Photo



**INDOOR AIR PARTICLES  
& AIRBORNE PATHOGENS**

**HEPA  
FILTER**

**FAN**

**SHIELDED IRRADIATION  
CHAMBER**

**Powerful  
254nm UVC LIGHT**

**$E_t = 0.9 - 1.2$  secs**

**CARBON  
FILTER**

**DISINFECTED  
AIR PARTICLES**



**Actual Photo**



**Dual UVC Lamp**



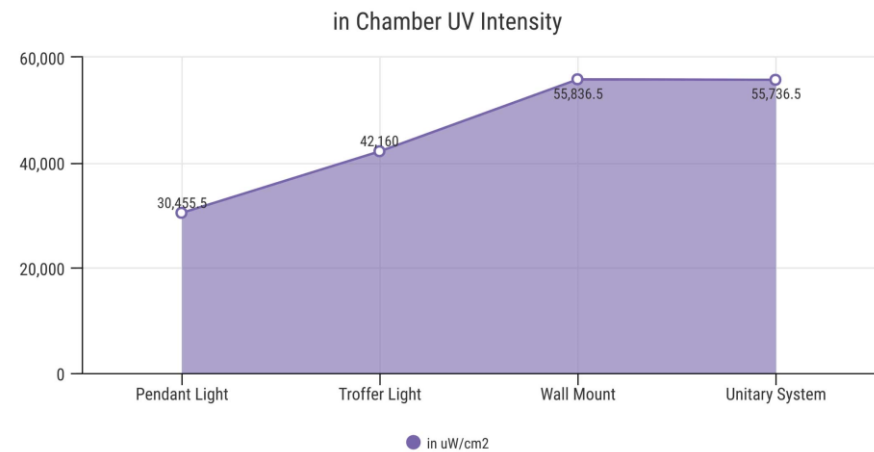
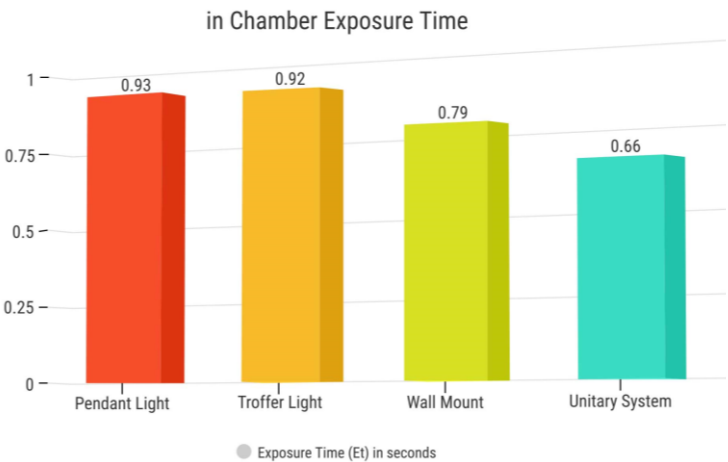
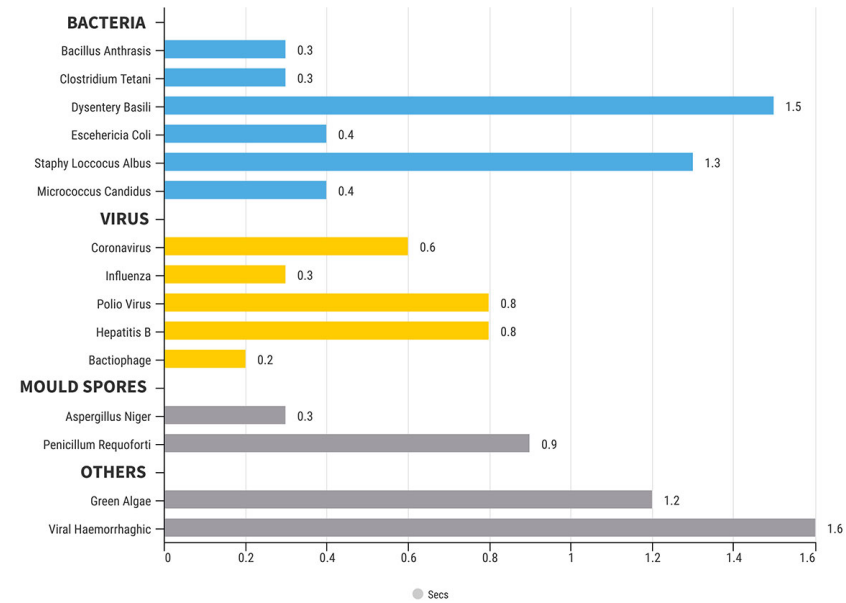


# LUMENAIRE AIR DISINFECTION TABLE

LumenAire Model	Airflow Speed	CFM	Air Change per Hour	Exposure Time (Et)	UV Intensity	UV Dose	Philips UVC Lamp	Zonal Protection Factor	Zonal Protection Factor	Fan Sound
	mts/sec	ft3/min	(Based on 100 sqft x 10ft area)	in seconds	uW/cm2	Joules/sec/m2	Qty	Area1 = 100 ft2	Area2 = 300 ft2	in DbA
Pendant Light	1	14.98	1X	0.93	30455.5	283.2	2	100%	80%	45
Troffer Light	1	57.21	3X	0.92	42160.0	387.9	3	100%	90%	48
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Unitary System	1.5	399.41	23X	0.66	55736.5	367.9	4	100%	100%	60

## UV-C IRRADIATION / KILL TIME IN SECONDS

\* The required "Exposure Time" to eliminate micro-organisms under 30,000 µW/cm2 of 254nm UV-C Light 99.99% Lethal Dosage





## Testing the Effectiveness of the LumenAire

We came up with 3 levels to test the efficacy of our fixtures.

Aerobiology has a rich history, initially focused on infectious diseases, including practical scientific applications. Many individuals have made contributions to the development of Aerobiology but with limited success.

Currently, there are only two notable labs for Aerobiology in the world, one is found in the US and another in Germany. This makes determining the presence of airborne pathogens in a given environment more difficult to analyze and test.



### BASIC

Indoor Air Quality Equipment Test

The team from **LumenAire** will conduct pre & post Basic Indoor Air Quality equipment test if requested by the client.

We prefer this to be in a controlled room or preferably where the equipment will be used. The test can last for as little as 24-48 hours per session.

**COST:** Free of Charge

### IN-HOUSE

Air Sampling Analysis

**LumenAire** has independent in-house medical technicians that can perform, Air sampling analysis using Microbial air samplers, Air particle counters and Data loggers.

This will also be performed on pre and post equipment installation and should be monitored for days to weeks.

**COST:** Contract amount is based on Area and time required for the test.

### THIRD PARTY

Certified Test Report from Reputable Labs

**LumenAire** has partnered with TUV-SUD and identified other established testing agencies like SGS, IAQ Consultants and Qsafe. \*All test samples are to be conducted on SAC-Singlas accredited laboratory.

These third party agencies will ensure the most stringent IAQ test available in the market, the time frame can vary from days to months depending on the test result required and issuance of the report.

**COST:** Contract amount is based on the agency, area and time required for the test.

## ZONAL PROTECTION

100 SQFT x 10FT

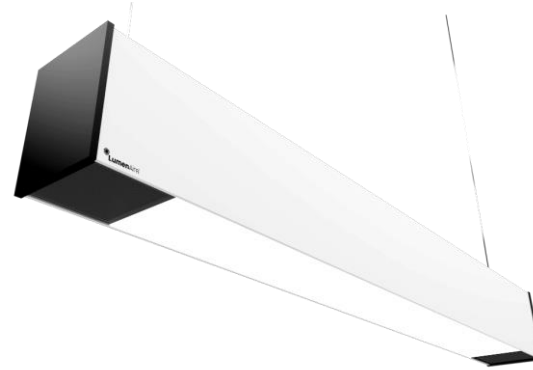
AIR EXCHANGE

1 – 6X TIMES PER HOUR

# LUMENAIRE MODELS



## CEILING MOUNTED DEVICES



**PENDANT TYPE**



**TROFFER TYPE**

## WALL MOUNTED DEVICES



**BASIC DEVICE**



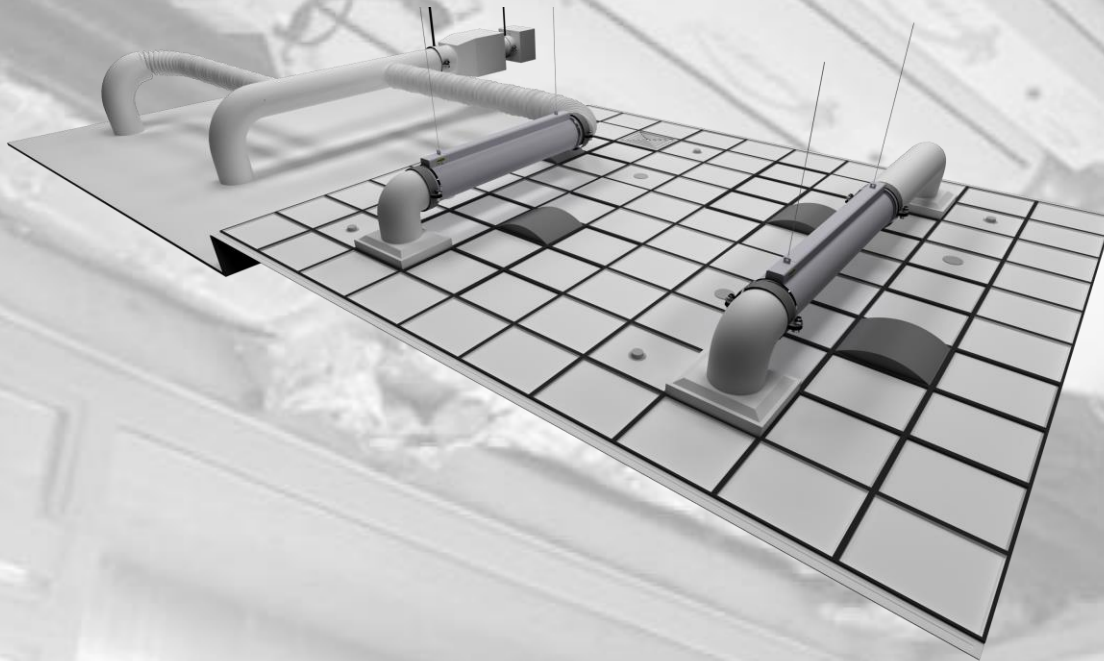
**ALL-PURPOSE DEVICE**



## CUSTOM-MADE SOLUTIONS (UNITARY IN-DUCT SYSTEMS)

**This ducted stand-alone system can also be connected to the HVAC system**

- It can be installed on areas with high ceilings and large-open spaces.
- It can be retrofitted on existing space and,
- It can be hidden or exposed above ceilings or behind walls.





**PREVENTION IS BETTER THAN CURE...**  
**IMPROVING INDOOR AIR QUALITY IS THE KEY TO  
CONTAINING THE SPREAD OF INFECTIONS & DISEASE-  
CAUSING AIRBORNE PATHOGENS**

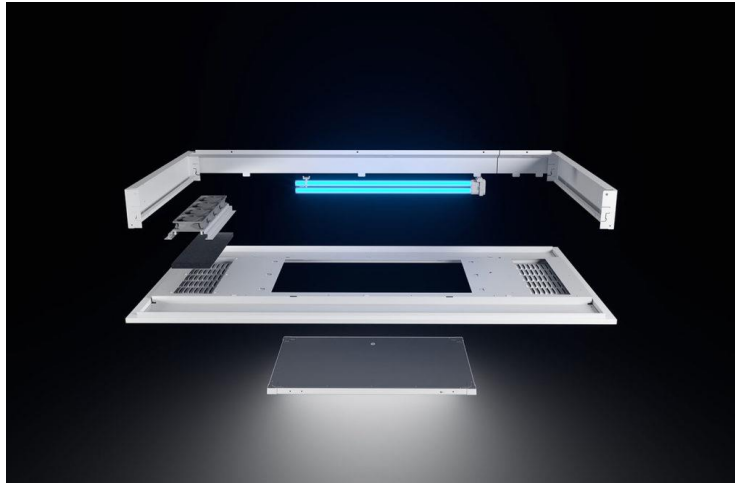


- Hotels (Rooms & Public Spaces)
- Restaurants (Main Dining Halls)
- Retail (Individual Shops)
- Offices (Reception, Meeting Rooms, Breakout Areas and General Work Areas)
- Hospitals (Rooms, Labs & Public Spaces)
- Healthcare Facilities (Dental and Medical Clinics)
- Schools (Classrooms, Function and Faculty Rooms)
- Nursing Homes and Childcare Facilities
- Homes and Many More...

# LUMENAIRE VS THE COMPETITION

- We have longer chamber 900mm resulting to more exposure time and a stronger UVC light intensity
- We use 2020 technology for better Aesthetic design, Operation and Maintenance
- We have smaller & quieter fans
- We use Philips TUV professional lamps and drivers
- Patent pending for the pendant light model and air + surface sterilizer
- We have better price point at almost 50% less than the competition
- We are supported by Enterprise Singapore

## UV Angel - USA

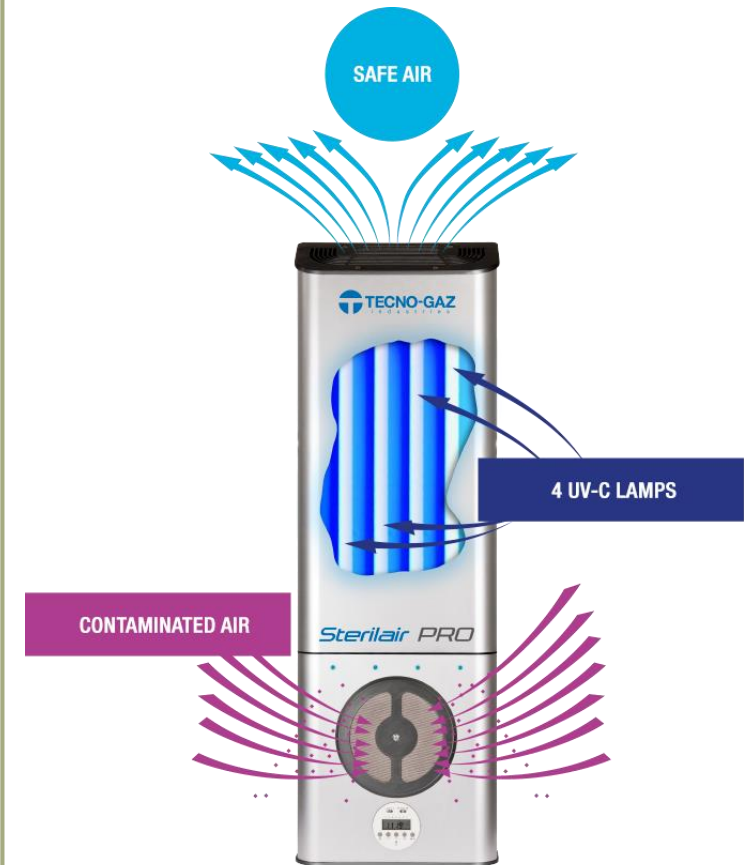


## UV24 - USA



**USD \$ 2249.00**

## Tecno-Gaz | Sterilair - Italy

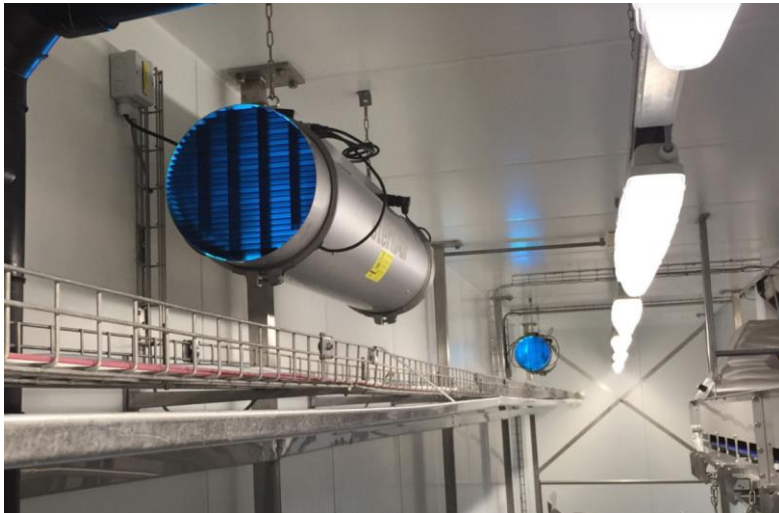


**€ 1,659.20**

# US & EU DEVICES



Sterilaire - Switzerland



Atlantic Ultraviolet- USA

USD \$ 942.99



UV Technology – UK



USD \$ 942.99

Luxibel - Belgium



USD \$ 2,082

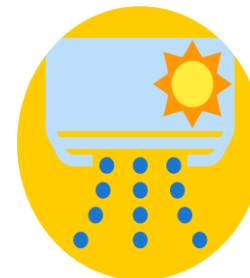
# FEEL SAFE AND STAY SAFE

## THANK YOU



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Download our mobile app  
**UVAir Calculator**



Available now!





**Your first step to clean air**

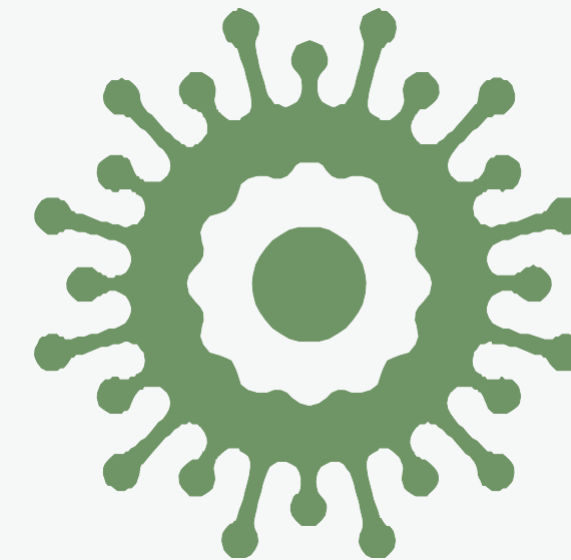




# Poor air quality indoors is the world's largest environmental hazard



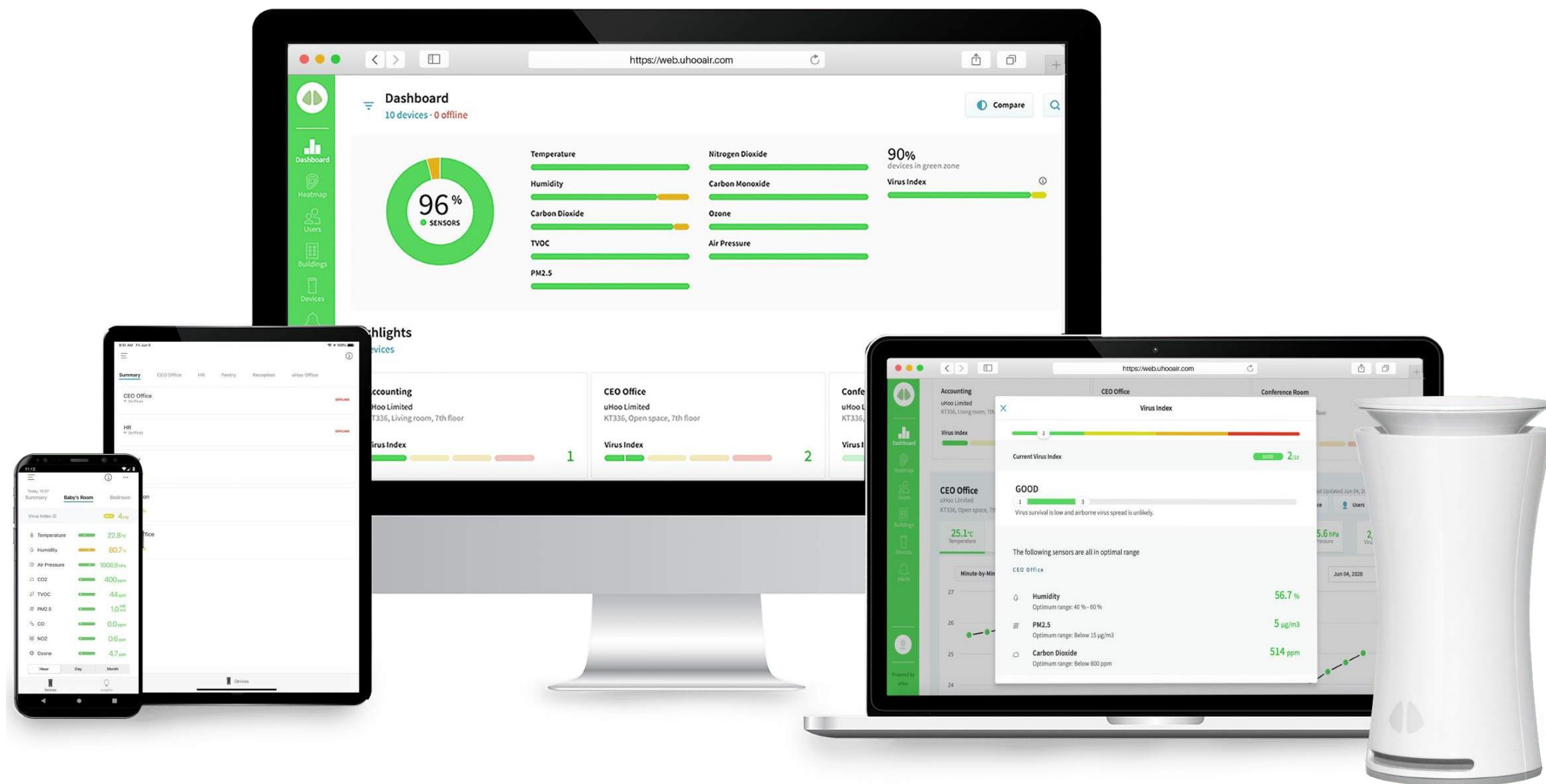
**Not knowing what you breathe makes you sick**



**Poor air quality enhances the survival and spread of viruses (COVID-19 included)**



# iDevice measures your air quality so you know exactly how to improve it



## User friendly application

Access real time and historical data, analysis, alerts, tips and integrations anywhere, anytime.



# Monitors nine air parameters in one device



The **most comprehensive indoor air sensor** on the market – because air is a cocktail of stuff and the more you know, the better you can manage



Temperature



Carbon Dioxide



Carbon Monoxide



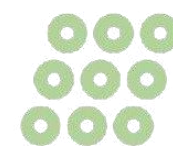
Humidity



Nitrogen Dioxide



Ozone



PM2.5



VOCs



Air Pressure

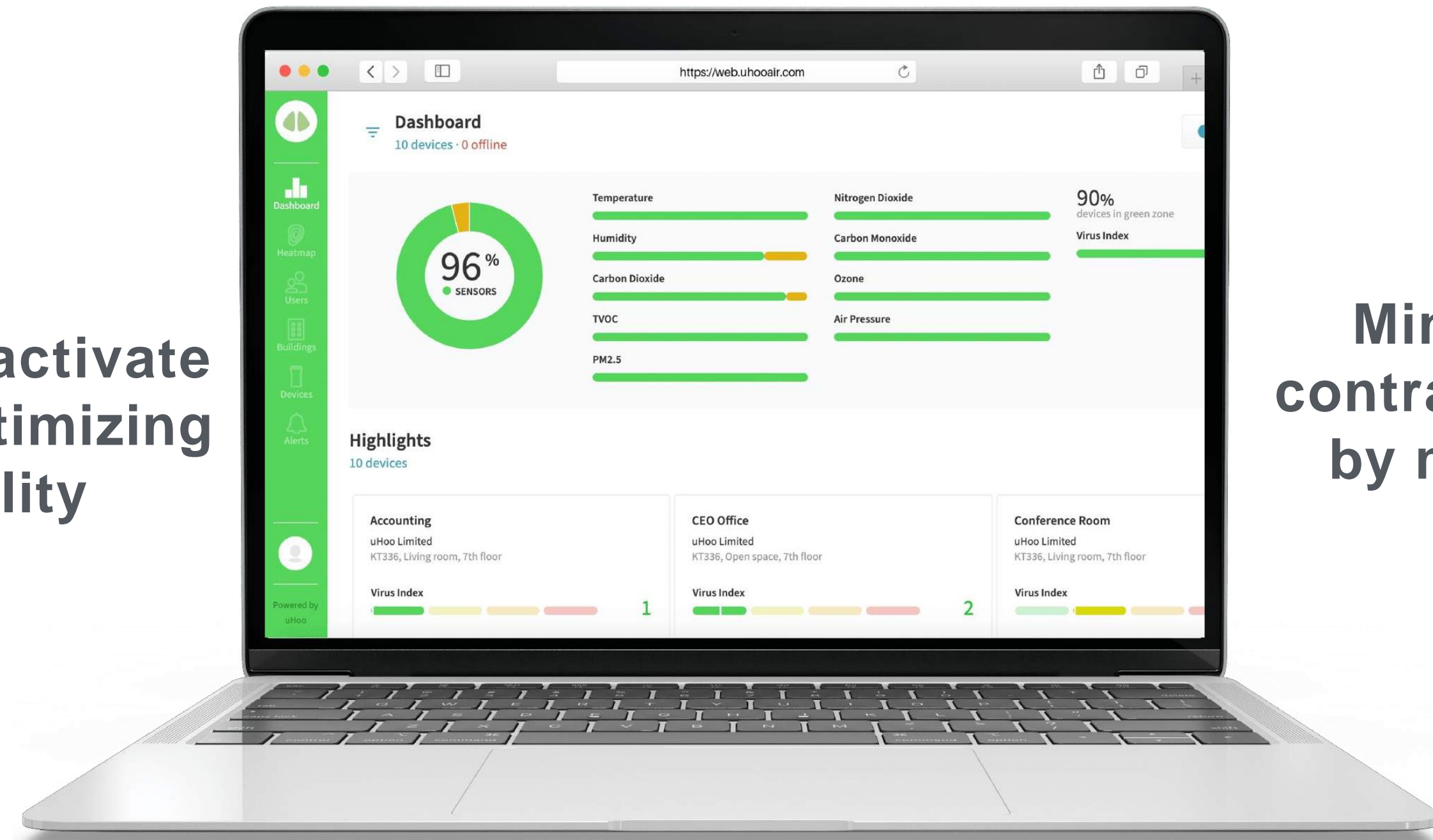




# iDevice Virus Index

World's first, patent-pending, only real-time assessment of virus survival using air data

Know how to deactivate  
COVID-19 by optimizing  
your air quality

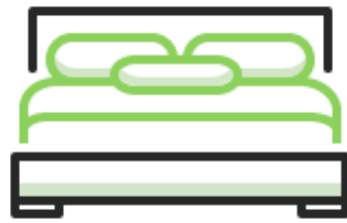


Minimize risks of  
contracting symptoms  
by making your air  
healthy



# iDevice for everyone

The first step is to know the quality of your indoor air



## Home

Healthier family  
Less medical costs



## Business

Healthier organization  
Increased productivity  
Less financial costs



## Government

Healthier citizens  
Reduced health costs



# Why your property needs uHoo

## **A cost-efficient, well-maintained and healthy workplace**

- Health and productivity of occupants
- Sustainability certifications
- New revenue stream
- Energy savings and building maintenance



# iDevice around the world

uHoo is sold to consumers worldwide, hundreds of corporate accounts in more than 10 countries







**Contact us :**

**Making the world healthier,  
one breath at a time**

**[www.exsto.asia](http://www.exsto.asia)**



**Your first step to clean  
air**





# Poor indoor air: World's largest environmental hazard



**Not knowing what you  
breathe makes you  
sick**



**Poor air enhances the  
survival and spread of  
viruses**



# A cost-efficient, well-maintained and healthy property



**Health and  
productivity**



**Sustainability  
certifications**



**Significant  
ROI**



**Energy  
savings and  
building  
maintenance**





# Aura™

**Best in class commercial environment monitor measuring 13 environmental factors\* plus a virus index and air quality index**

- Temperature
- Humidity
- Carbon Dioxide
- Carbon Monoxide
- Chemicals (VOCs)
- Particles - PM<sub>10</sub>
- Particles - PM<sub>4</sub>
- Particles - PM<sub>2.5</sub>
- Particles - PM<sub>1</sub>
- Formaldehyde
- Air Pressure
- Light (Lux)
- Sound

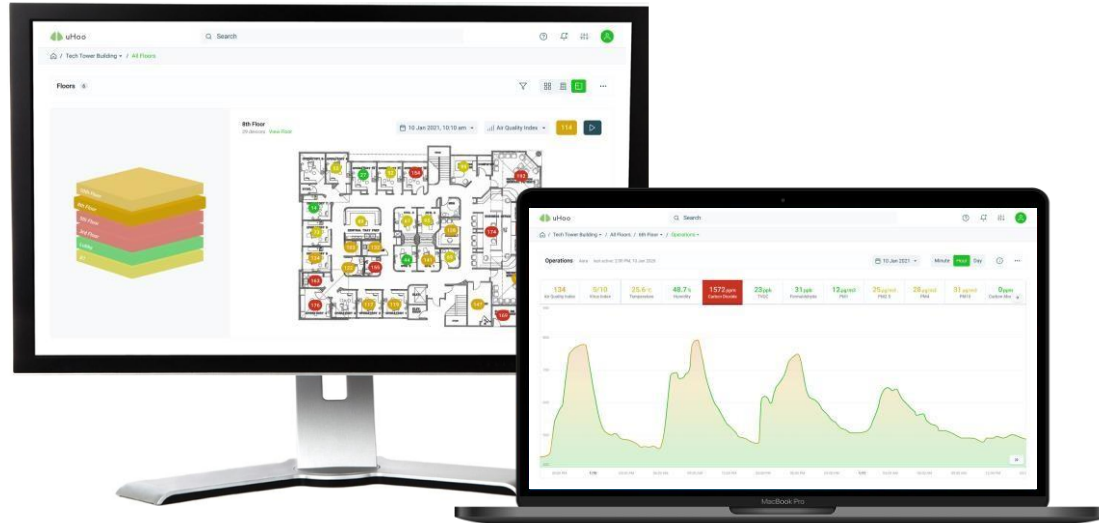
\*Upgradable up to 15 parameters with the option to choose among sulfur dioxide, ammonia, oxygen, hydrogen sulfide, nitrogen dioxide and ozone



Utilizes the uHoo Business account (required)



# Device measures your environment so you know exactly how to improve it

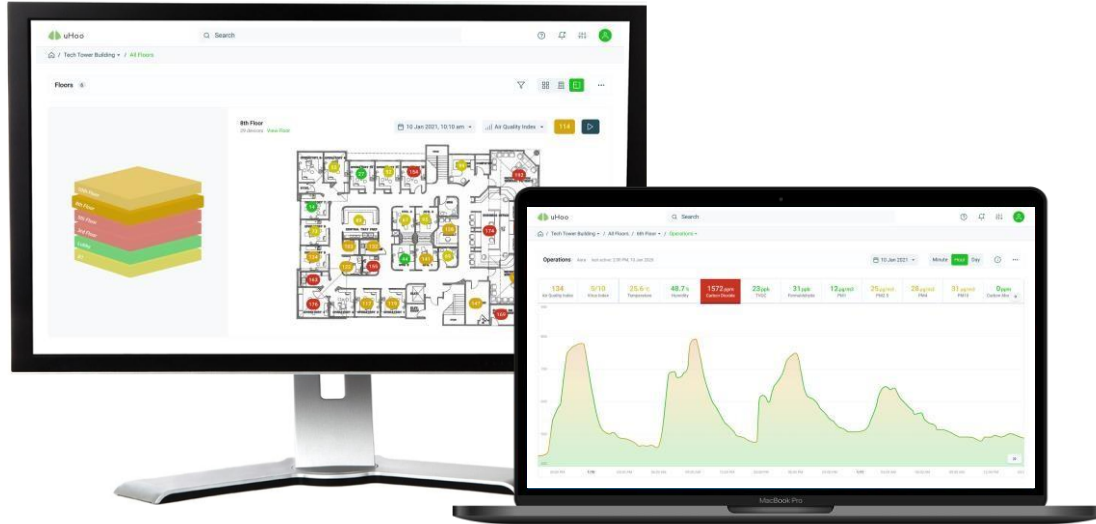


**User friendly application**

**Access real time and historical data, analysis, alerts, tips and integrations anywhere, anytime.**



# Enhanced Context on all your data



Virus Index

Air Quality Index

Discomfort Index

Productivity Index

Energy Index

Mould Index

Health & Safety Index

Sustainability Index



# Virus Index™

## World's first, patented, only real time assessment of coronavirus risk

<b>Good (1 to 3)</b>	Virus survival is low and transmission through the air is unlikely.
<b>Mild (4 to 6)</b>	Virus survival is moderate and transmission through the air is possible but air quality poses little to almost no direct health risk for people who are not sensitive to air pollution.
<b>Bad (7 to 8)</b>	Virus survival is prolonged and transmission through the air is likely. Air quality poses some health risk.
<b>Severe (9 to 10)</b>	Virus survival is high and transmission through the air is likely. Air quality would affect most people.





Tens of thousands of happy customers, including blue chip companies and governments, worldwide



# Some of the organizations worldwide who trust us





# Partner with us

Take your first step  
to  
clean air

[www.exsto.asia](http://www.exsto.asia)

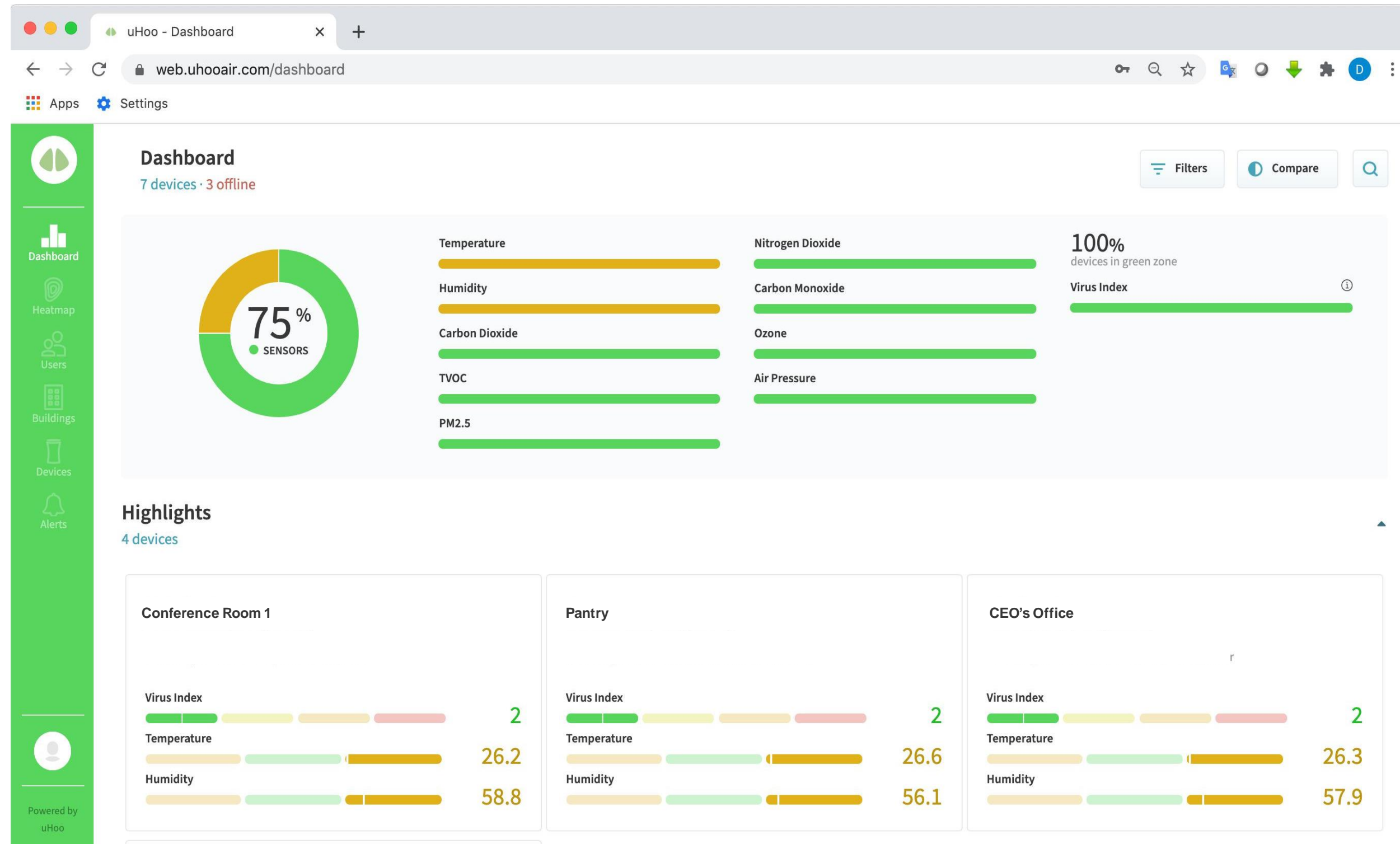


Your first step to clean air

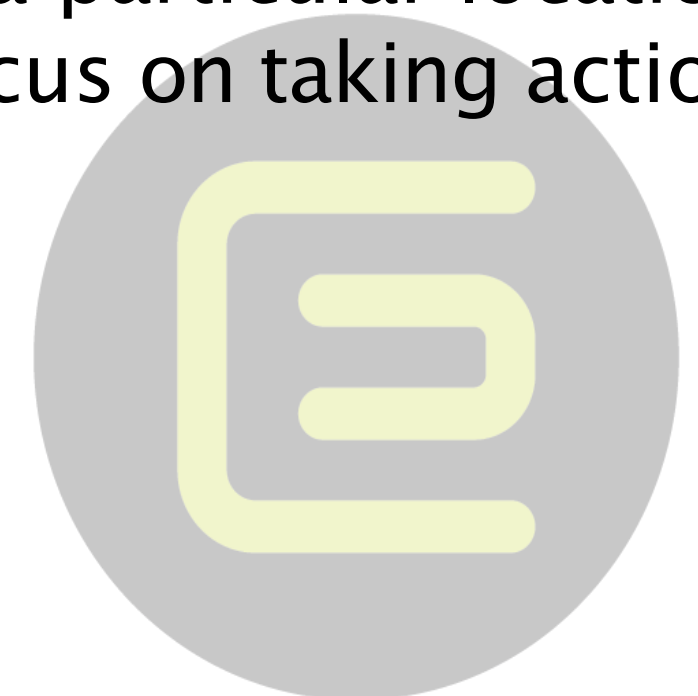




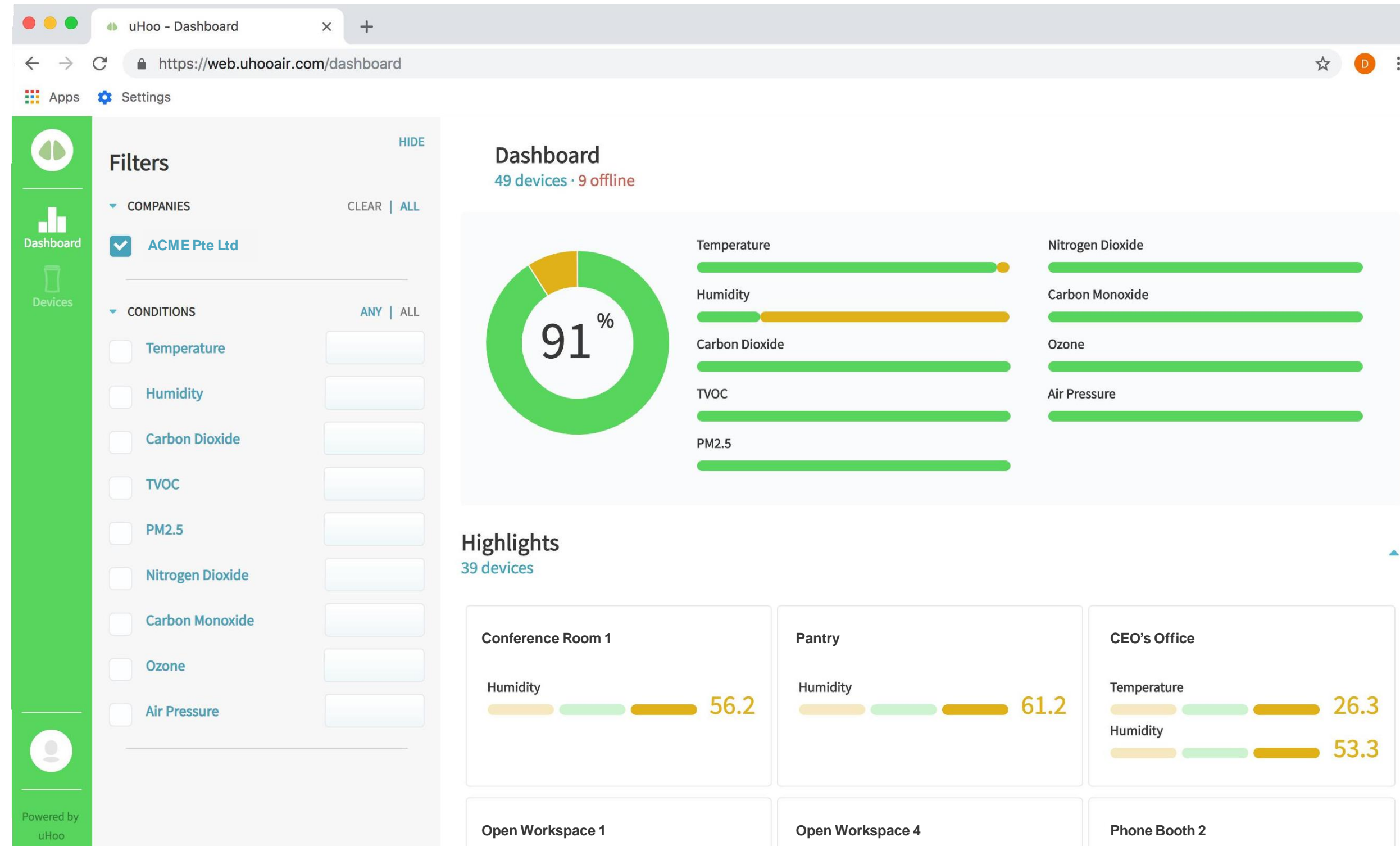
# Dashboard



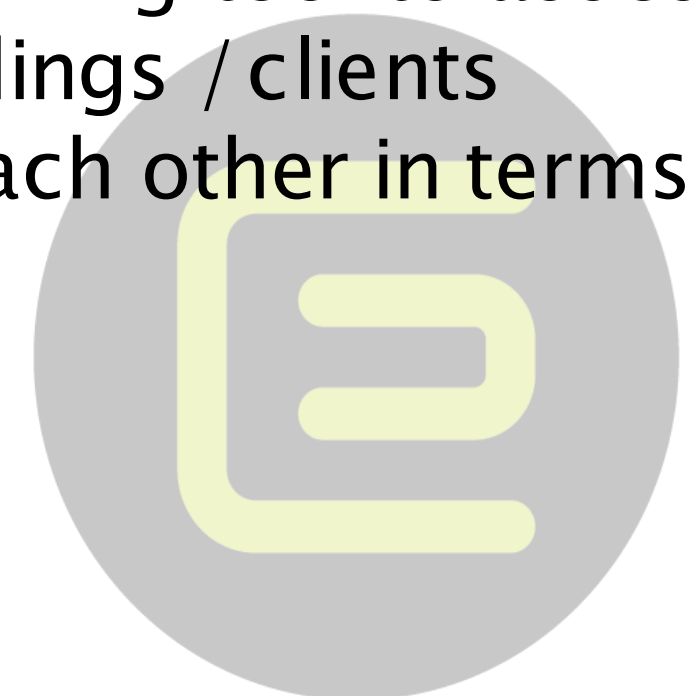
- Clear overview of how your air is performing across all your locations and spaces
- Easily identify locations that require immediate attention
- Highlights section provides an overview of the criticality of issues in a particular location so you focus on taking action



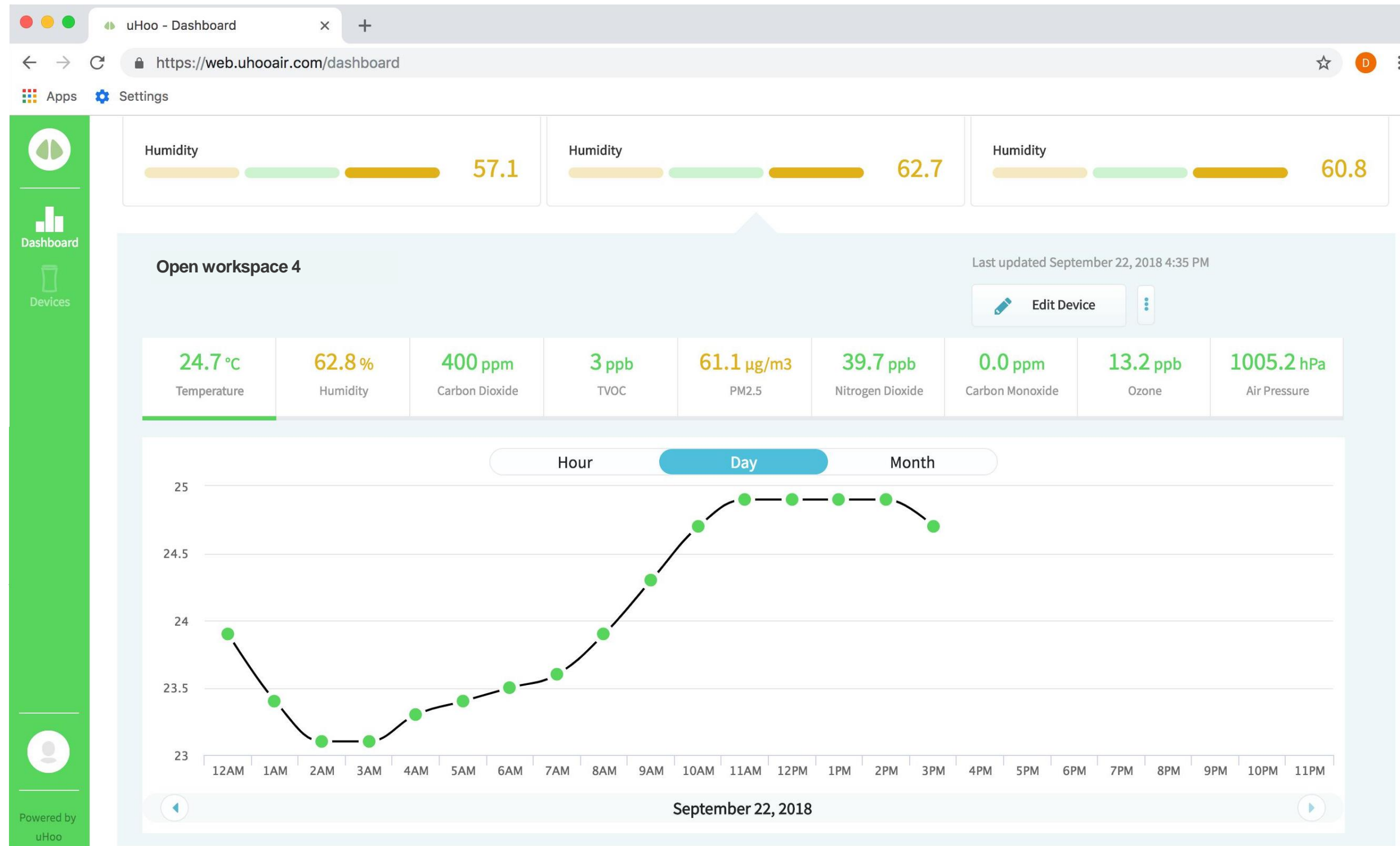
# Benchmarking



- Customize your overview according to your own offices and/or your tenants
- Segregate air quality conditions based on severity to prioritize which areas to address
- Benchmarking tool to assess your buildings / clients against each other in terms of wellness

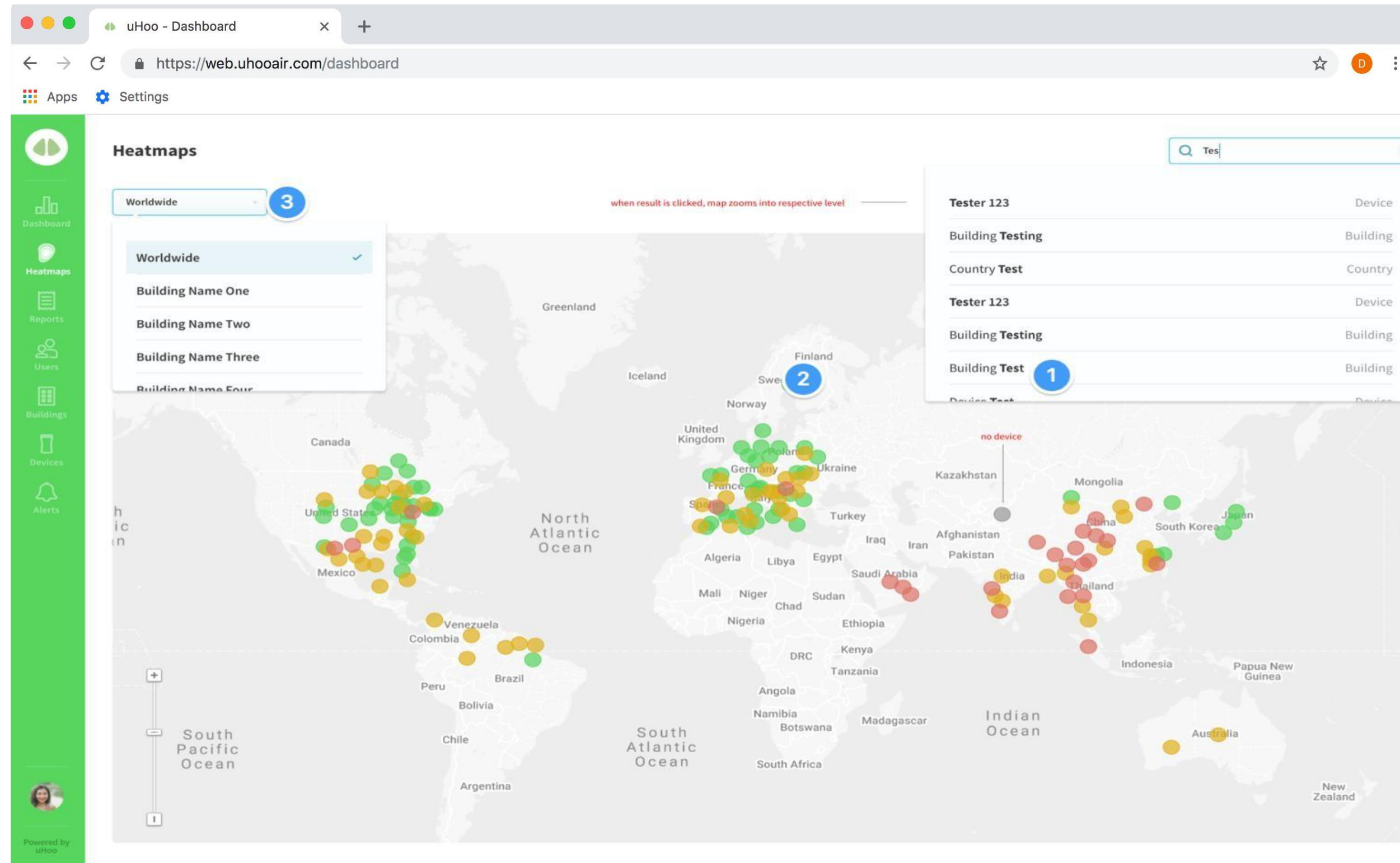


# Analytics



- Drill down to view real time data of locations you'd like to look deeper into
- Color codes allow you to easily identify locations that have issues and what those issues are
- Trends and charts allow you to understand how air quality changed over time and what you can do to prevent future issues

# Global map

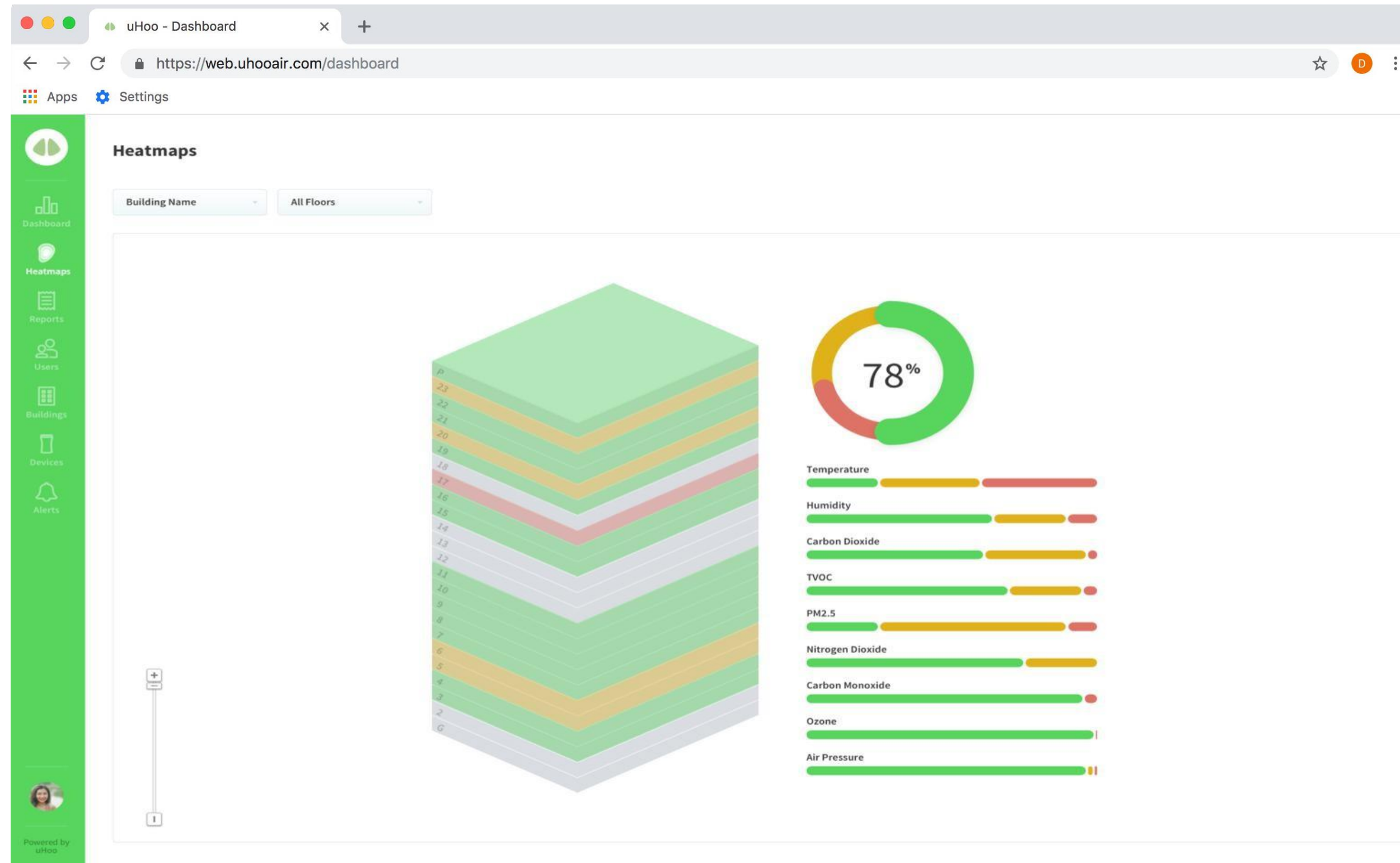


- View the air of all your buildings, offices and locations on a global map
- Clear indication on which regions are performing better and where action should be taken





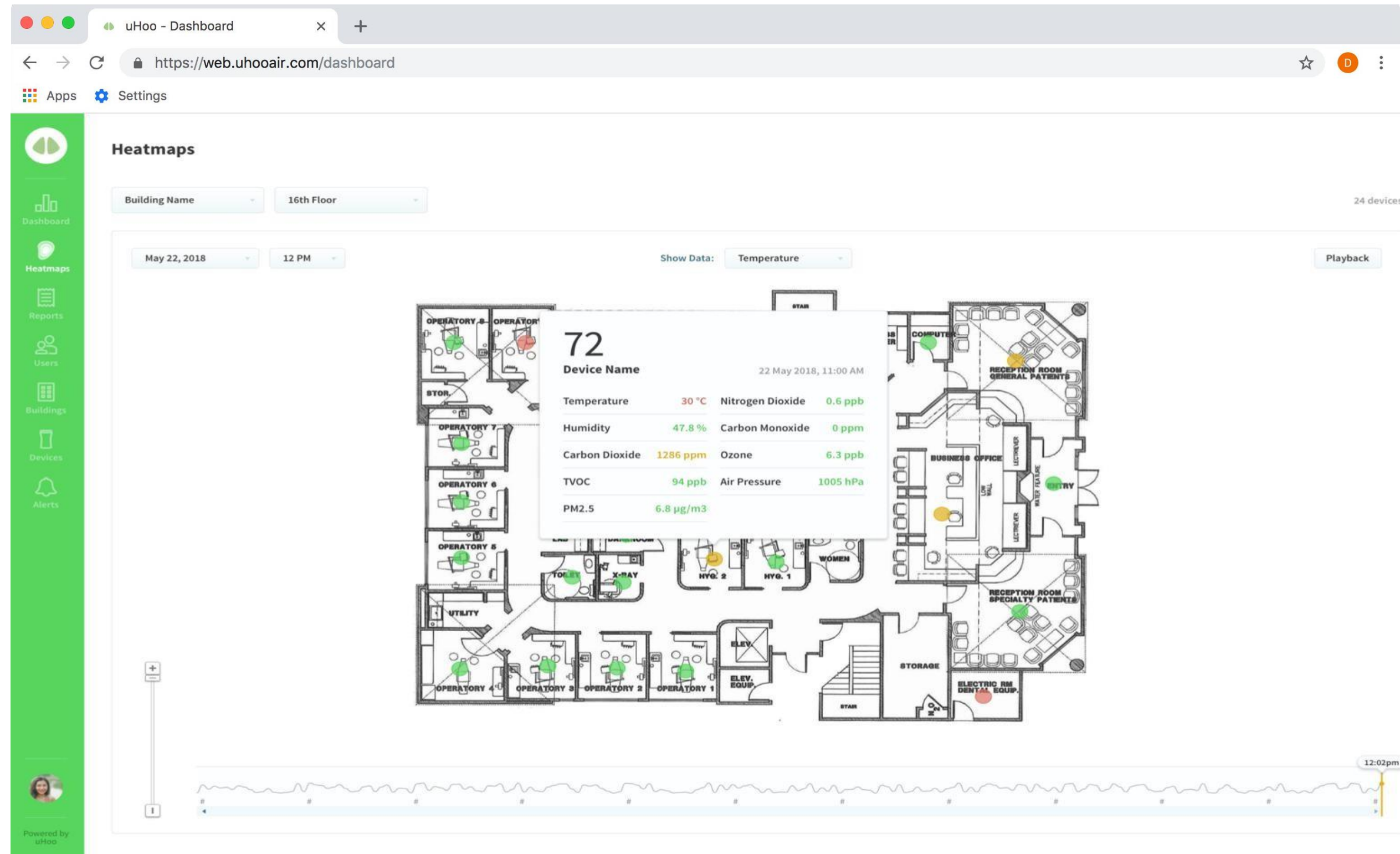
# Building map



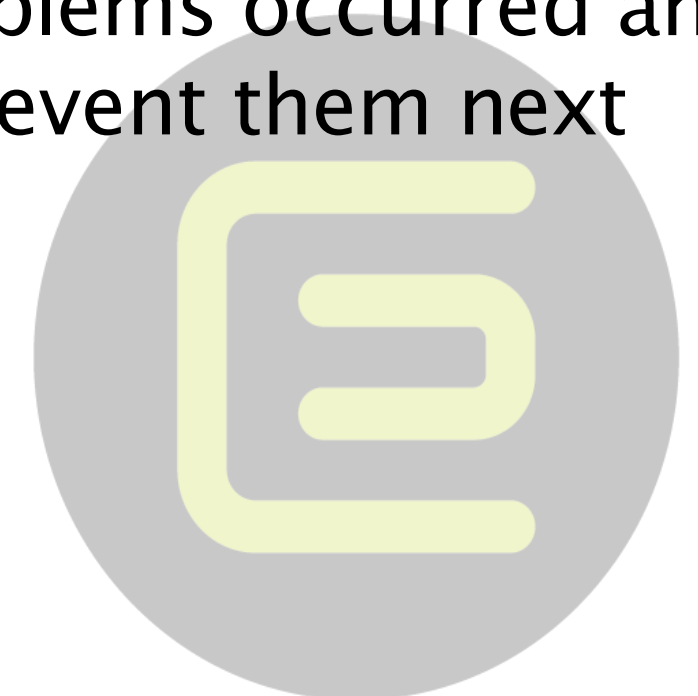
- Drill down into a specific building from the world map and understand the air quality floor by floor
- Clearly identify which floor has problems and what type of problem so specific action be taken



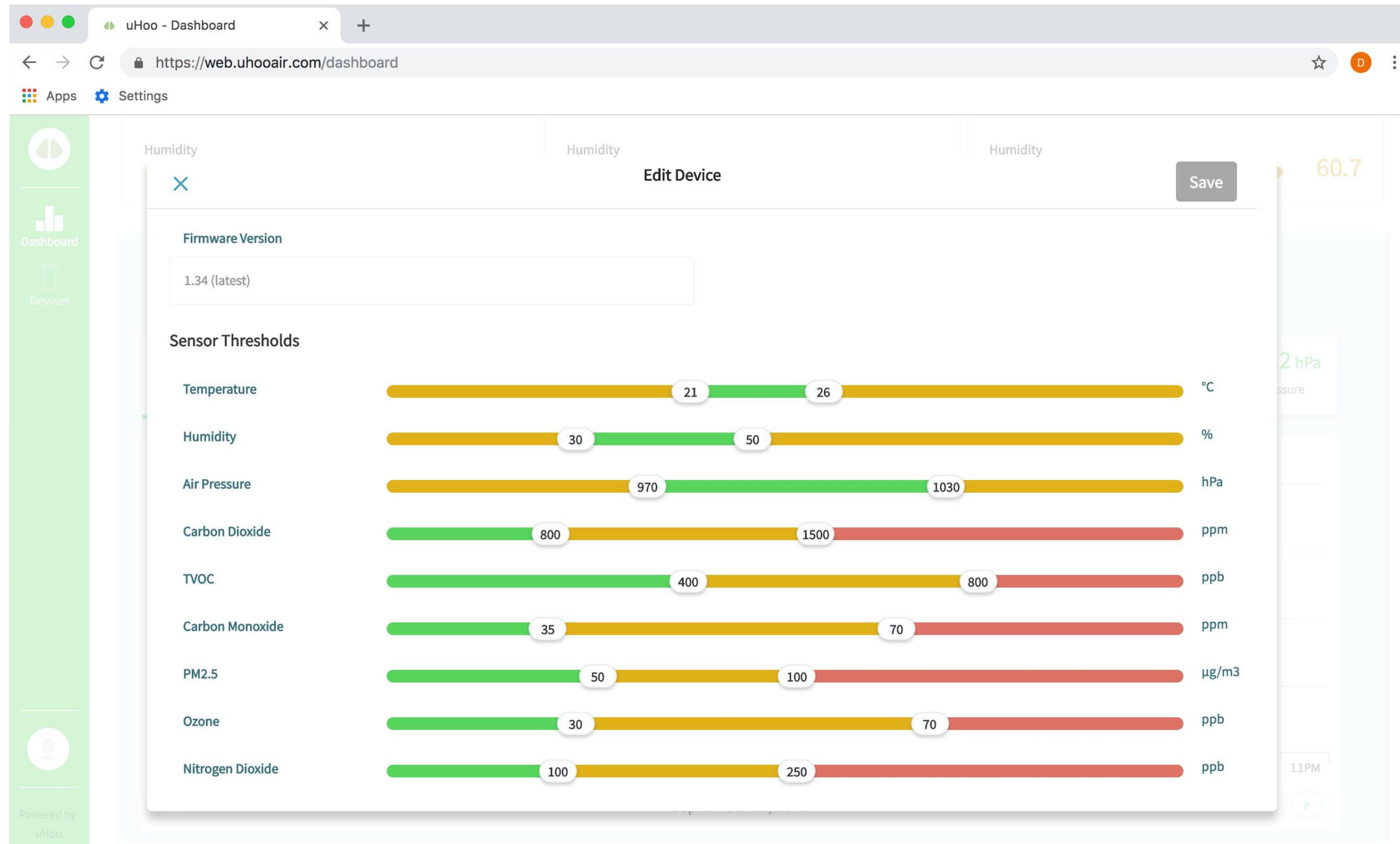
# Floor map



- Upload floor plans and create air quality maps of the entire space so you can pinpoint exactly where issues are and what action should be taken in that specific location
- Video playback of air quality changes over time to see when problems occurred and how to prevent them next time



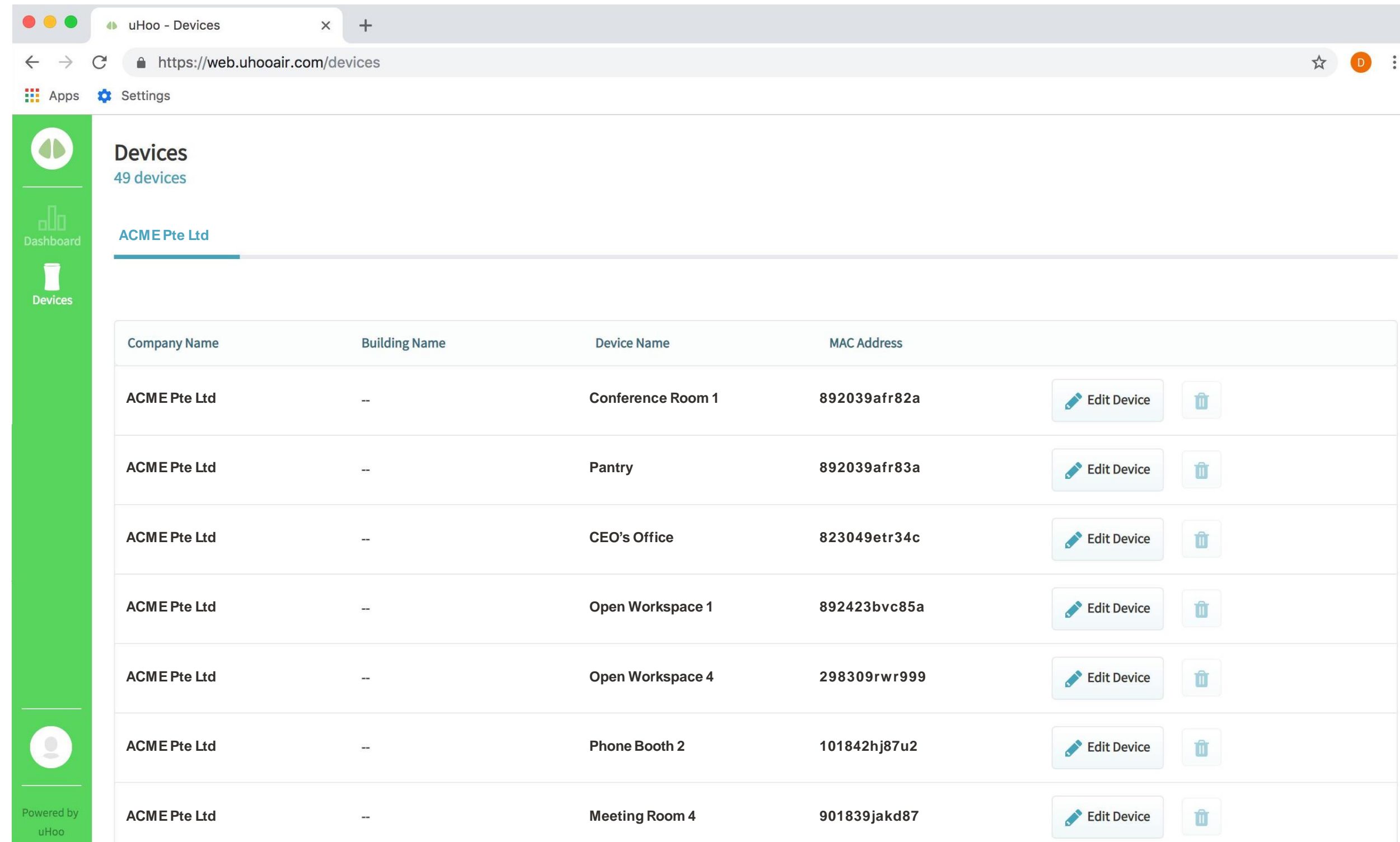
# Customization



- Customize thresholds of every air quality parameter of every uHoo device based on your preferences and/or your country's building standards
- Overview and dashboard will automatically adjust in real time based on your selection



# Security



The screenshot displays a web application titled "uHoo - Devices" with the URL "https://web.uhooair.com/devices". The interface includes a sidebar with "Dashboard" and "Devices" options. The main section, titled "Devices" with a sub-header "49 devices", shows a table of devices for the company "ACME Pte Ltd".

Company Name	Building Name	Device Name	MAC Address	
ACME Pte Ltd	--	Conference Room 1	892039afr82a	<a href="#">Edit Device</a>
ACME Pte Ltd	--	Pantry	892039afr83a	<a href="#">Edit Device</a>
ACME Pte Ltd	--	CEO's Office	823049etr34c	<a href="#">Edit Device</a>
ACME Pte Ltd	--	Open Workspace 1	892423bvc85a	<a href="#">Edit Device</a>
ACME Pte Ltd	--	Open Workspace 4	298309rwr999	<a href="#">Edit Device</a>
ACME Pte Ltd	--	Phone Booth 2	101842hj87u2	<a href="#">Edit Device</a>
ACME Pte Ltd	--	Meeting Room 4	901839jakd87	<a href="#">Edit Device</a>

- Full device management system to customize device settings
- Strong privacy and security system where you can ensure data is accessible only to companies and/or users you provide access to







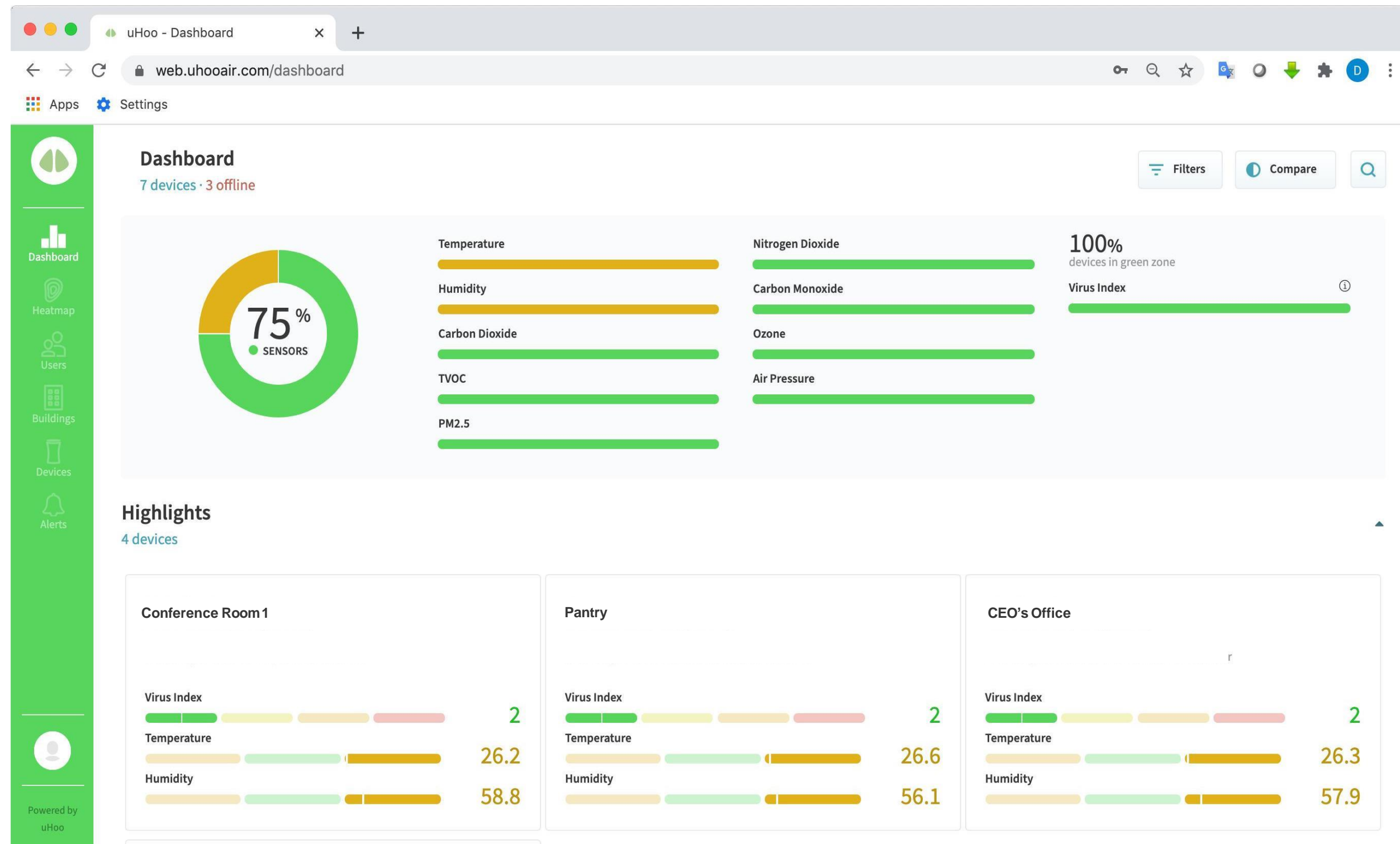
EXSTO™

Your first step to clean air



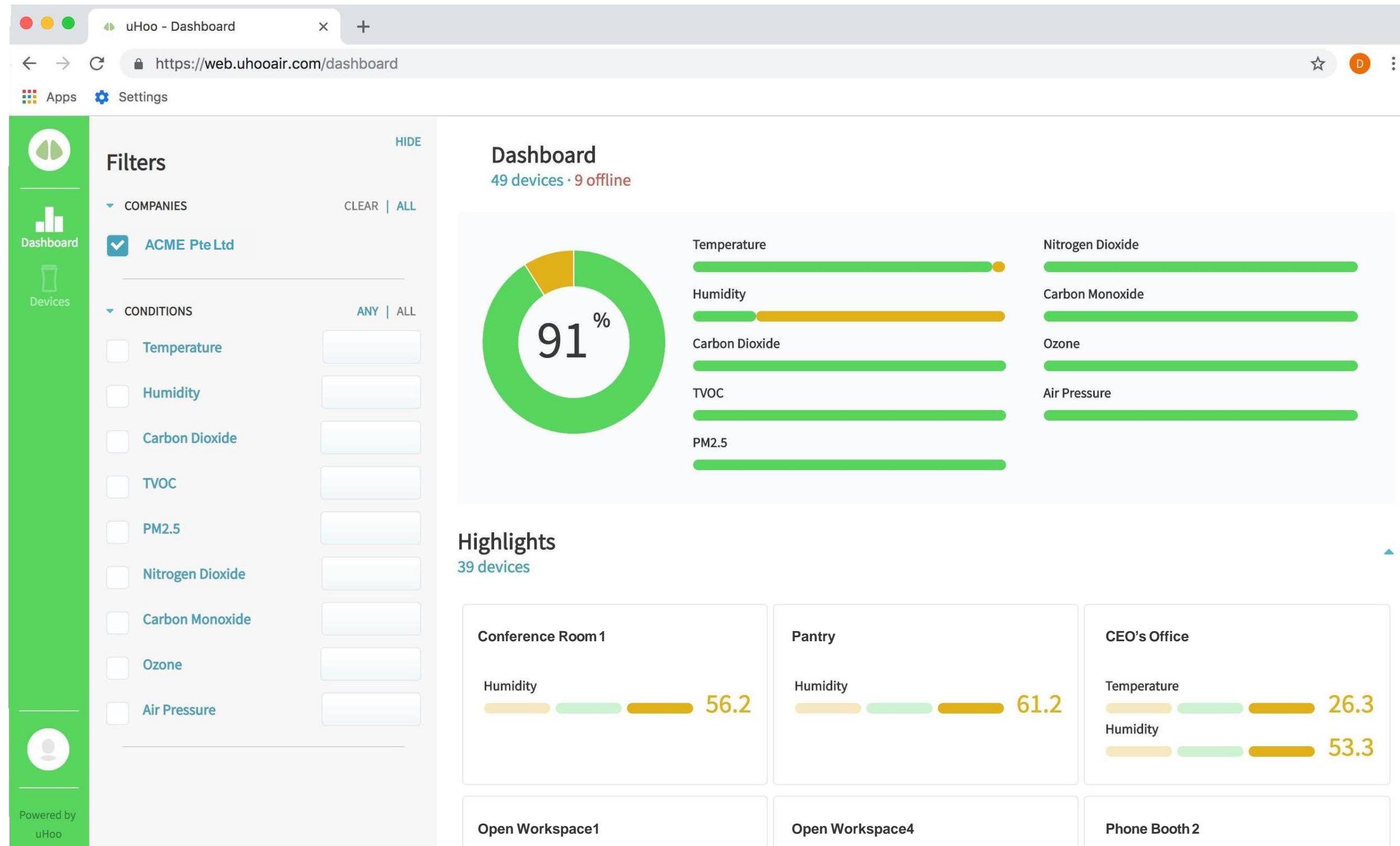


# Dashboard



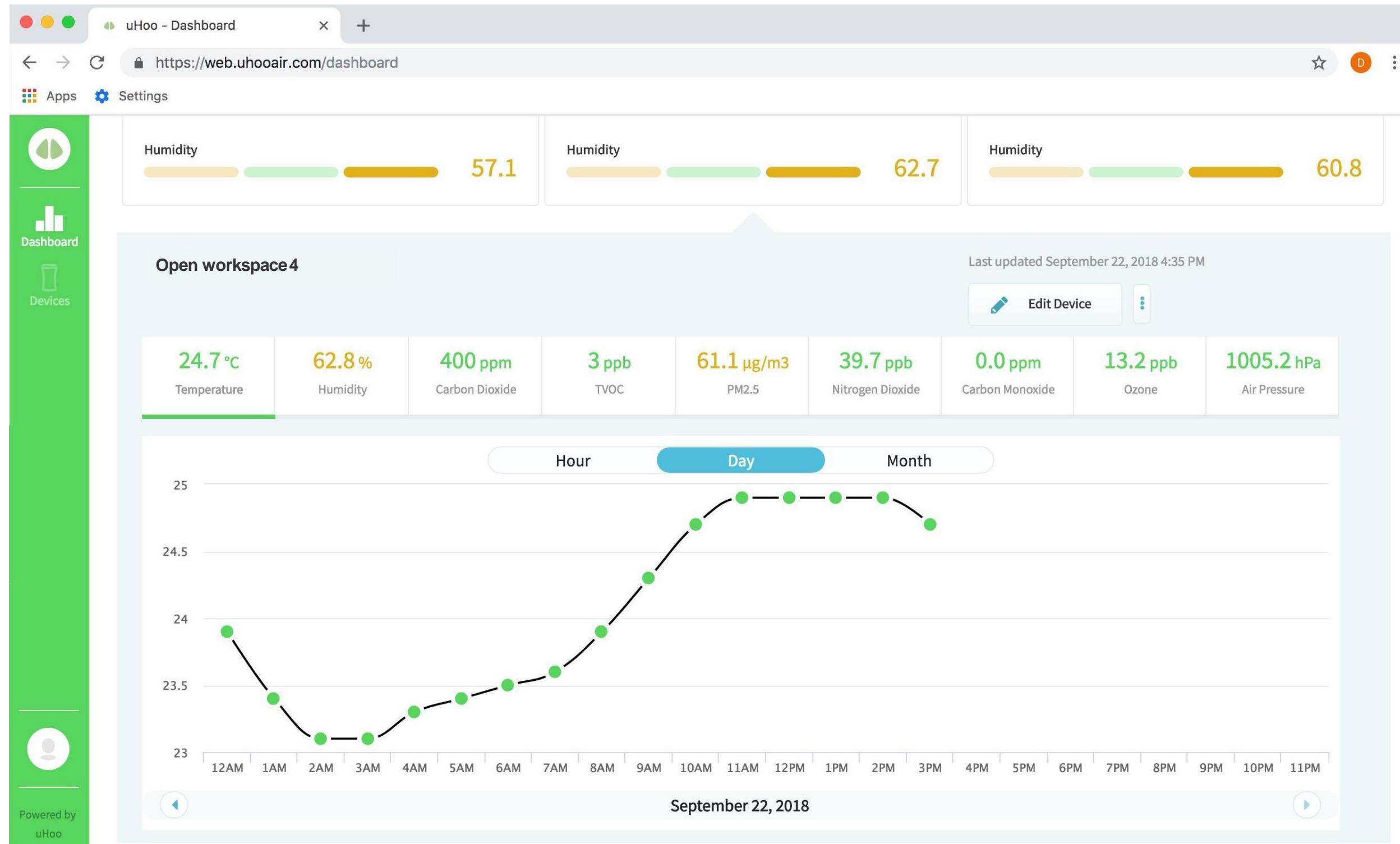
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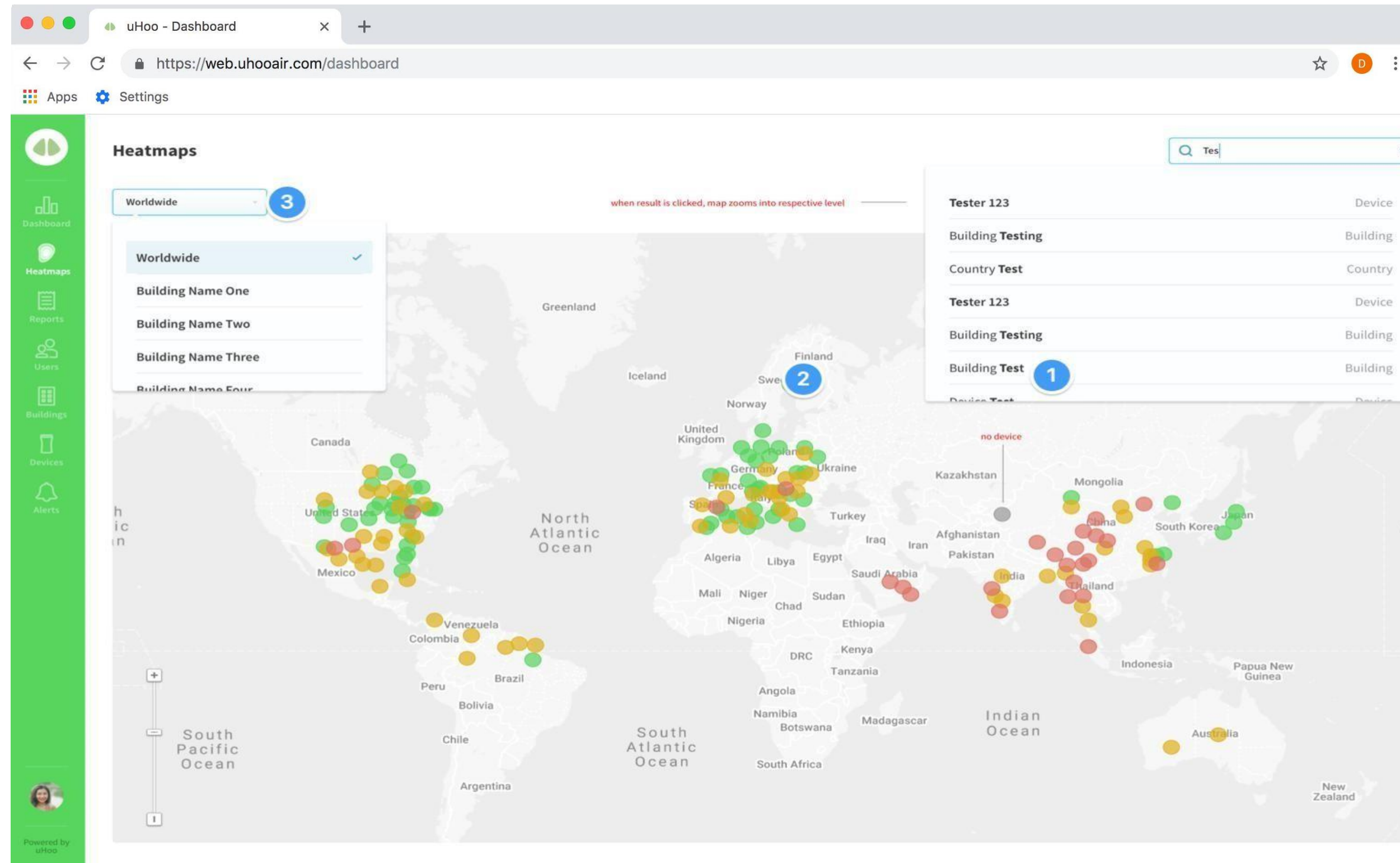
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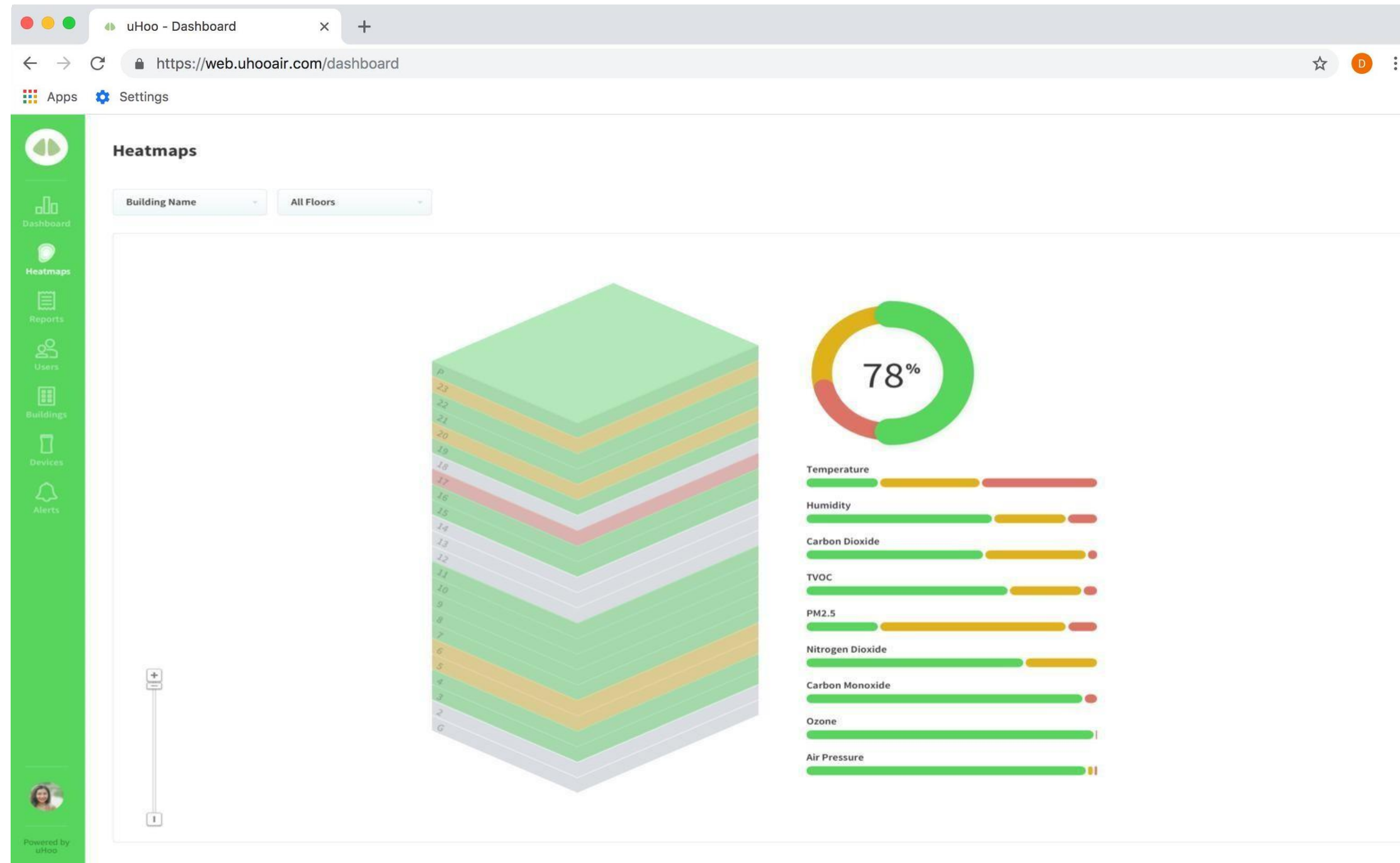
# Global map



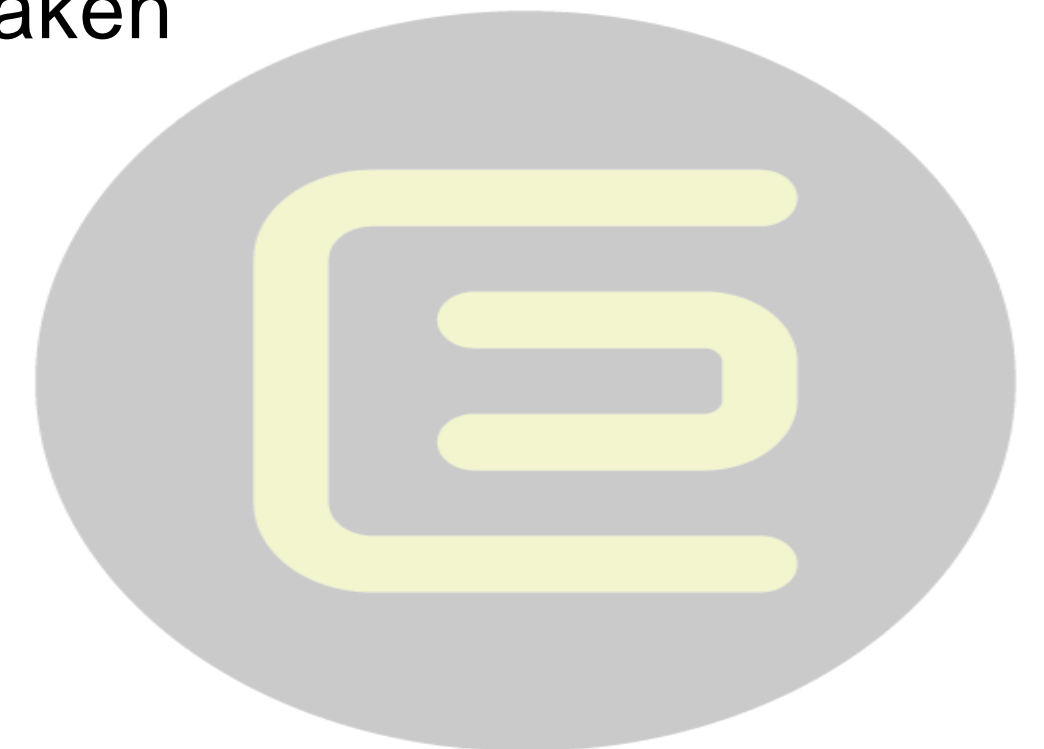
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# Building map

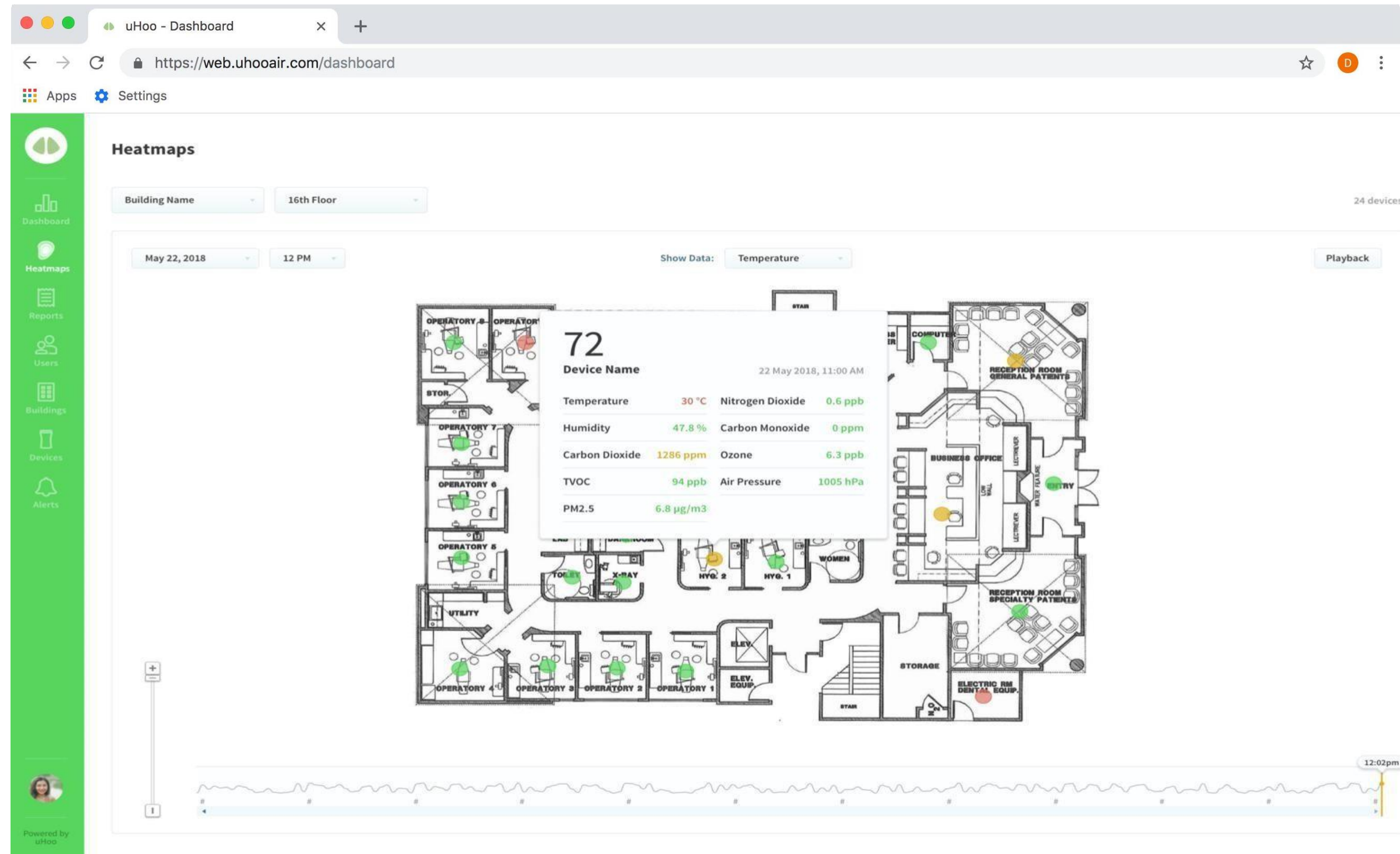


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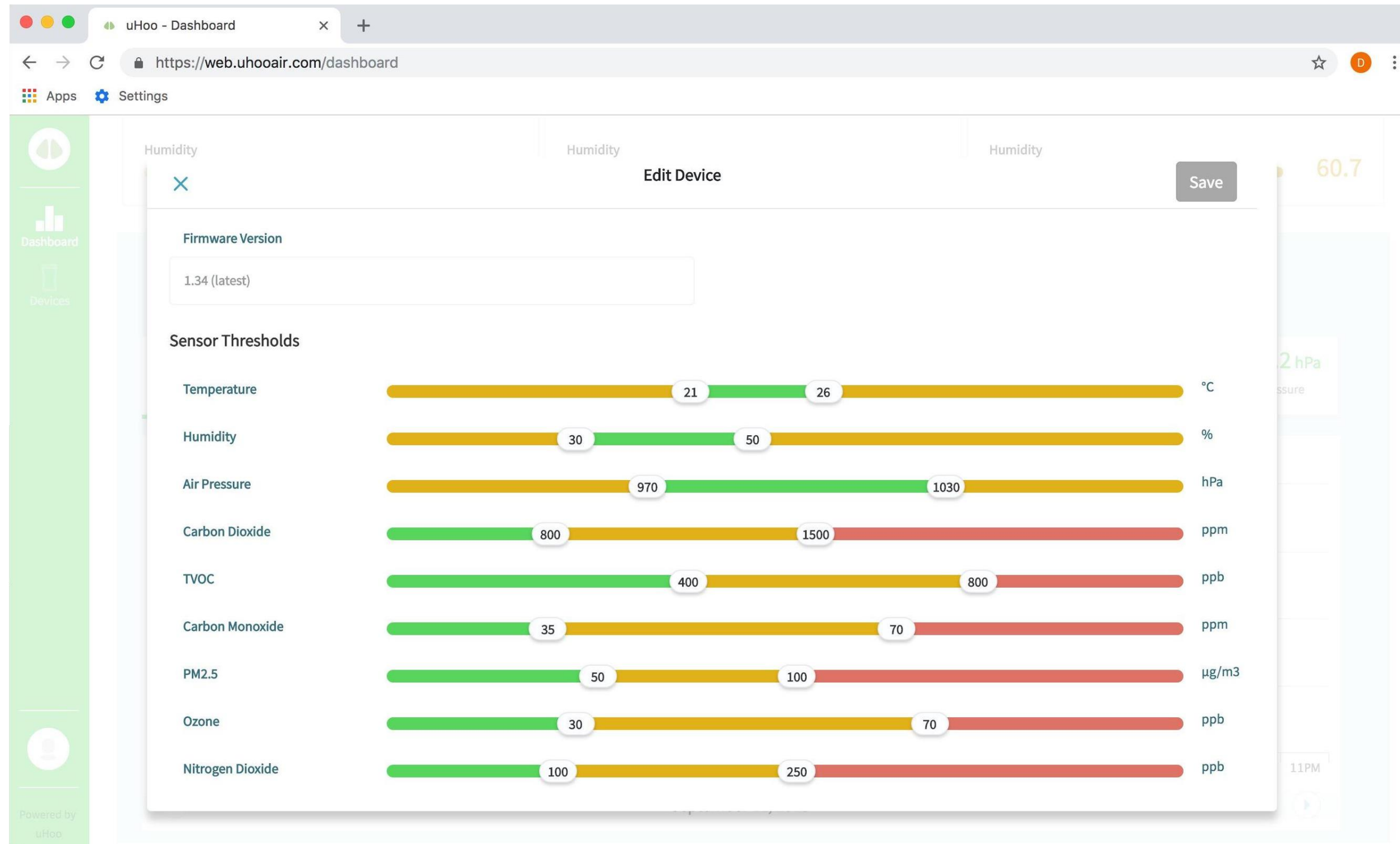


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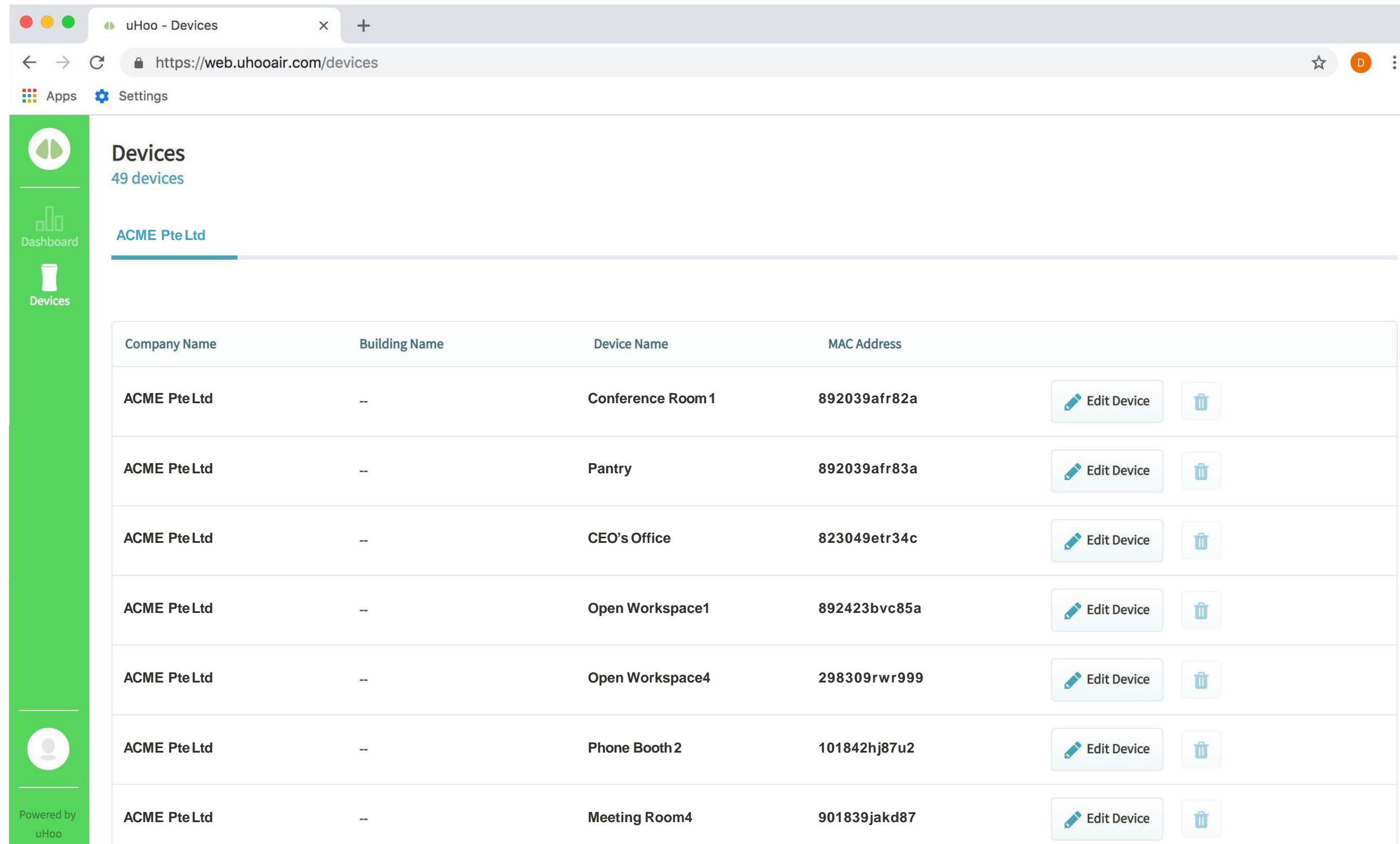
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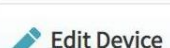





# Security



**Devices**  
49 devices

ACME Pte Ltd

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Powered by uHoo

- Full device management system to customize device settings
- Strong privacy and security system where you can ensure data is accessible only to companies and/or users you provide access to



## Technical specifications



# Your first step to clean air

*A cost-efficient, well-maintained and healthy home.*



EXSTO™

## Product Specification



**Security:**  
128-bit AES end-to-end encryption



**Processor:**  
32-bit ARM-based



**User interfaces:**  
Native iOS and Android apps



**Certifications:**  
FCC, CE, PSE, TELEC, NTC, KC, REACH, RoHS



**Power consumption:**  
900mW (normal operation) and 1.5W (data transmission)



**Operating Temperature:**  
-10°C to 50°C (14°F to 122°F)



**Operating Humidity:**  
5% to 95%, non-condensing





## Design Specification

Body Material:  
ABS thermoplastic polymer

Base Material:  
Silicone rubber with stainless  
steel insert

Dimensions:  
Height: 161mm or 6.3 inches  
Diameter: 85mm or 3.3 inches

Weight:  
270g or 0.6lbs

Status indicator:  
RGB LED



## System Requirements

WiFi network:  
802.11 b/g/n @ 2.4GHz (5GHz not supported)

Power supply:  
Power via 5V/2A USB cable and adapter

Interface:  
iOS 11 (64-bit devices) or above, or Android 4.2 or above

Software:  
uHoo mobile app on iOS or Android  
Free uHoo Home account



### Carbon Dioxide (CO<sub>2</sub>)

Range: 400 to 10,000 ppm  
Resolution: 1 ppm  
Tolerance:  $\pm 50$ ppm or  
 $\pm 3\%$  of reading<sup>1</sup>



### Particulate Matter (PM<sub>2.5</sub>)

Range: 1 to 200  $\mu\text{g}/\text{m}^3$   
Resolution: 1  $\mu\text{g}/\text{m}^3$   
Tolerance:  $\pm 15 \mu\text{g}/\text{m}^3$  or  
 $\pm 10\%$  of reading<sup>2</sup>



### Nitrogen Dioxide (NO<sub>2</sub>)

Range: 0 to 1,000ppb  
Resolution: 1ppb  
Tolerance:  $\pm 10$ ppb or  
 $\pm 5\%$  of reading<sup>\*</sup>



### Relative Humidity

Range: 0 to 100%  
Resolution: 0.1%  
Tolerance:  $\pm 3\%$



### Air Pressure

Range: 300 to 1,100 mBar  
Resolution: 0.1 mBar  
Tolerance:  $\pm 1$  mBar



### Carbon Monoxide (CO)

Range: 0 to 1,000 ppm  
Resolution: 0.1ppm  
Tolerance:  $\pm 2$ ppm or  
 $\pm 5\%$  of reading<sup>\*</sup>



### Temperature

Range:  $-40$  to  $85^{\circ}\text{C}$   
Resolution: 0.1 $^{\circ}\text{C}$   
Tolerance:  $\pm 0.5^{\circ}\text{C}$



### Airborne Chemicals (VOCs)

Range: 0 to 1,200 ppb  
Resolution: 1ppb  
Tolerance:  $\pm 10$  ppb or  
 $\pm 5\%$  of reading<sup>\*2</sup>



### Ozone (O<sub>3</sub>)

Range: 0 to 1,000 ppb  
Resolution: 1ppb  
Tolerance:  $\pm 10$  ppb or  
 $\pm 5\%$  of reading<sup>\*</sup>

<sup>\*</sup> Choose higher of the two.

1. CO<sub>2</sub> sensor will achieve operational accuracy after 48 hours of continuous operations, and it may take up to 3 weeks to achieve the specified accuracy using its auto-calibration algorithm.

2. TVOC sensor is calibrated using standard mixtures of formaldehyde, toluene, acetone, acetaldehyde and a few other VOC gases, however it may also respond to other VOCs in the air



**In the Box:**

Each box comes neatly packed with the following items:

- 1 unit device
- Micro USB cable
- Country-specific power adapter