Particle Plus Air Quality System

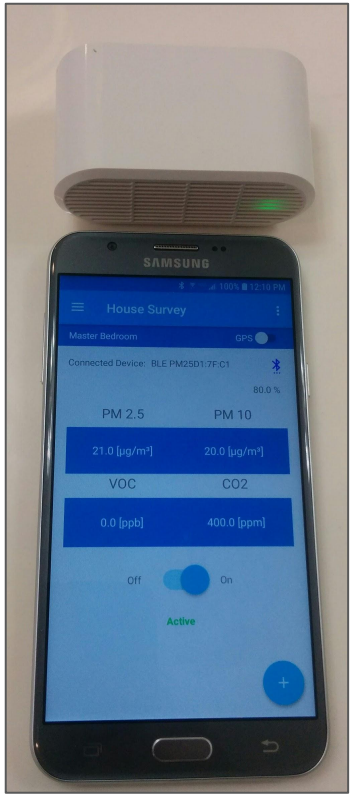
Digital Environment

Home Inspection Onboarding Topics

Welcome to Digital Environment and the Particle Plus AQI Solution!

- Introduction to the Technology and your experience
- Science of AQI and Mold Sensing
- How to Use the Platform (mobile app examples, walk through of web application)
- Selling AQI Services to your customers

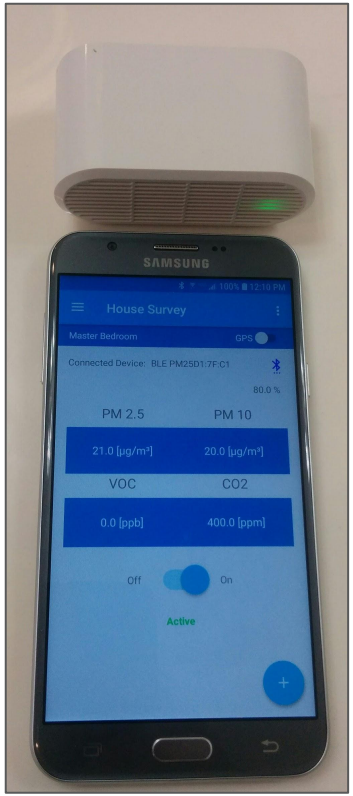
The Value of Particle Plus for Home Inspection



- Service bridging the gap between a full several hundred to thousand dollar evaluation and doing nothing
- Rapidly evaluate if an extensive evaluation is necessary
- Ability to precisely locate problem areas
- Makes you a better and more complete Inspector
- Gives you a tool your competition does not have
- Drives your customers to your solutions

Please tell us a little about what you have done for mold.

Success Stories



Home inspectors are

- ...adding revenue through AQI tests
- ...marketing the Pocket Plus to potential customers thus adding business
- ...seeing more customers choose mold sampling with the data Pocket Particle provides
- Overall revenues are going up with inspectors using the Pocket Particle as it drives their customers to more of their provided services
- Clients have had success charging for the service as an add-on service as an alternative to a more expensive evaluation

The Science of Air Quality and Mold Sensing

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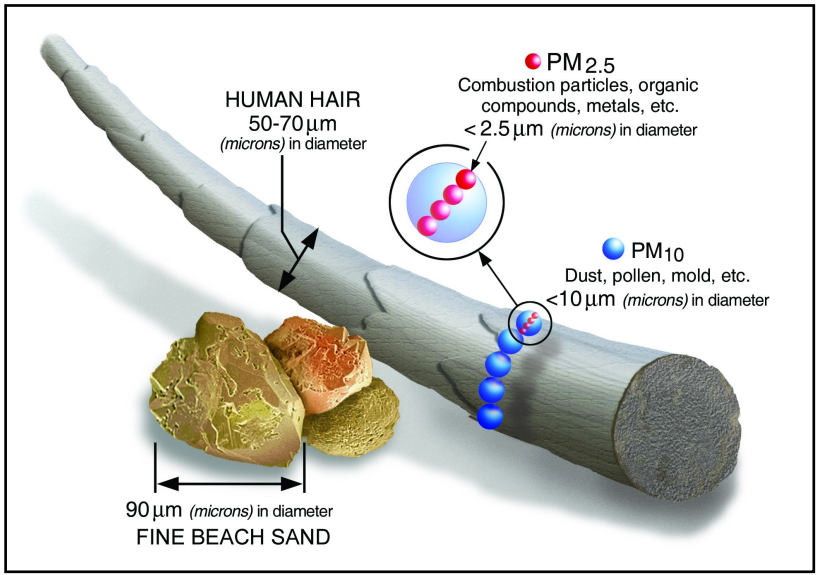
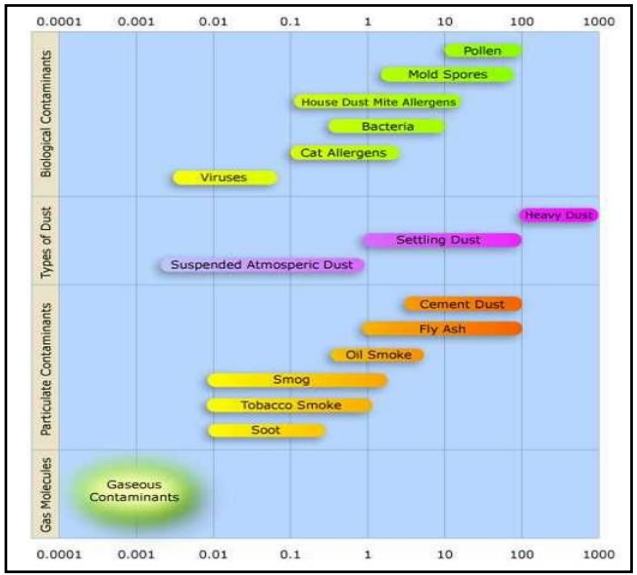
Particulate Matter





- Particulate matter less than 10 microns (PM10) is capable of penetrating deep into the lung
- Exposure to particulate is associated with respiratory irritation and can intensify cardiovascular problems
- The chart on the right shows the relative size of common airborne particulates

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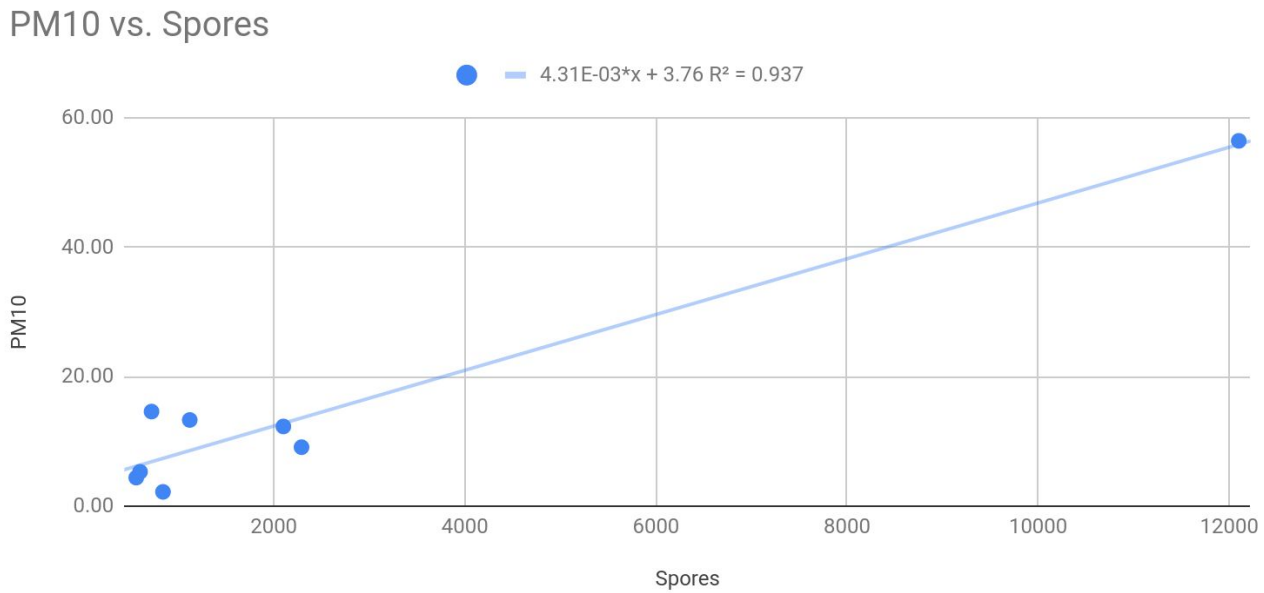
How does the sensor work?

- A fan draws air through the sensor
- A laser measures the quantity of two particle sizes: PM2.5 and PM10
- A small metal resistor measures the volatile organic compounds (VOC) in the air
- The mobile app receives data from the sensor and provides real time indication of what it is measuring.
- The data is processed for a better user experience. It takes a couple seconds for readings to “ramp up” and “ramp back down” when exposed to a high amount of particulate matter for a short period.

Calibration for Mold: PM10 µg/m^3 vs Spores/m^3



- A correlation has been seen between PM10 and mold spore counts
- Counts were done using validated collection and counting methods
- We are continuing to collect data to improve estimates

Check out the white paper!

- You may have received our white paper while you considered buying Particle Plus.
- We are going to send that to you again and suggest you take a second look after this call.
- It revisits some of the science we have covered here and will help answer some of the questions your customers may have about the science and technology of air quality and mold detection.

How to use the Particle Plus Air Quality Survey Platform

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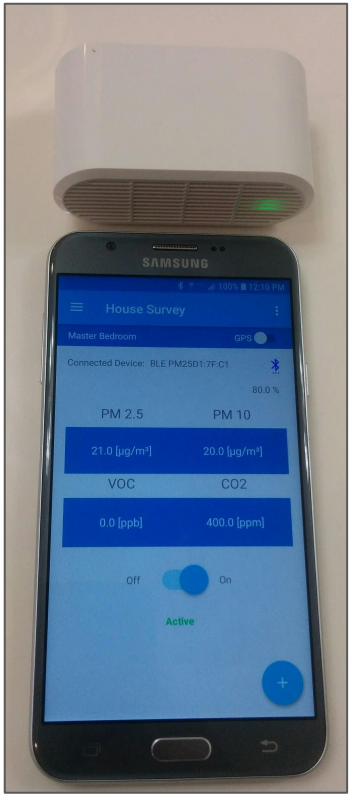
Particle Plus Surveys should be organized by “Property”

- Properties allow for quick and easy organization of a location and allows you to separate sections of a location into Rooms
- Each Property can support many Rooms to organize surveys in different areas of a Property
- You can create Properties ahead of time in the Web Application or on-site with the Mobile app.
- You can create as many Properties and Rooms as needed

Live demonstration of Web App Setup

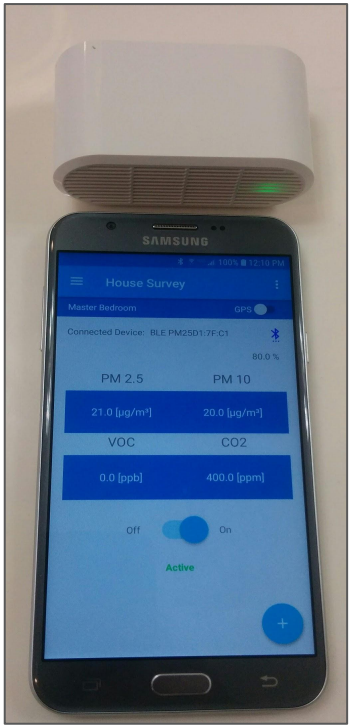
1. Login
2. Add new Inspectors (for multi seat accounts)
3. Create Property
4. Create Rooms
5. Assign Inspectors to Rooms

Mobile App and Sensor - Navigating the Mobile App



1. Start the mobile app and sign into your account
2. Go to the Property Menu
3. Select the Property you want to work on (this will open the Room Menu)
4. You may be prompted that the Room Location is blank. You may select Yes here to provide a GPS-acquired location to the Room for easier reference. This will require your GPS to be enabled.
5. Select the first Room to work on (this will open the Data Collection Screen)
6. If you have multiple sensors available for this Property, you may need to scroll to the appropriate sensor for “Pocket Particle AQI 2.0, BLE”

Mobile App and Sensor - Connecting and Operating the AQI Sensor

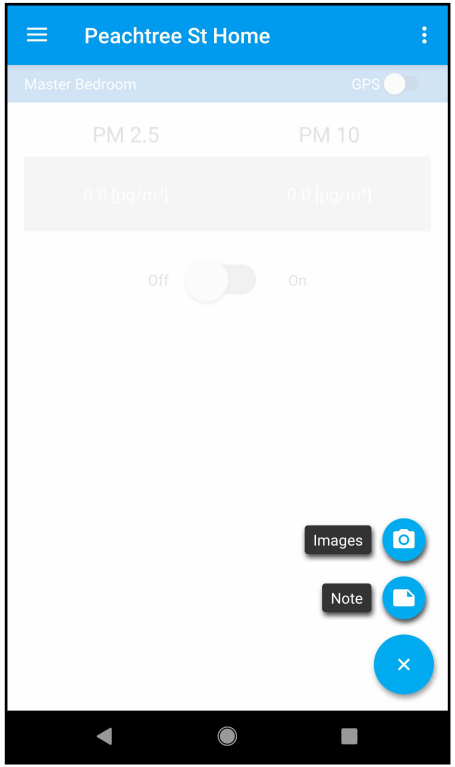


1. The Data Collection Screen is where you can connect to the sensor.
2. Press and hold the power button on the back of the AQI 2.0 sensor
3. The fan on the sensor will start and the LED will light up
    - When the blue light turns green, the sensor is ready to pair to the mobile device
4. Pressing the Bluetooth icon in the Data Collection Screen will bring up a list of devices
5. Select BLE PM2.5XX:XX:XX, where the X's are the device's unique ID
6. Press the blue toggle at the bottom of the Data Collection Screen to start recording data.
7. AQI data will be shown in realtime and measurements will be recorded in the we Web App every 5 seconds

General Use of Pocket Particle: Survey NOT Sample

1. Because pocket particle is portable and provides real-time information, it is a great SURVEY instrument. Think of it as preliminary AQI/mold investigation.
2. Be careful not to treat the sensor as a replacement for sampling
3. Pocket Particle can help you quickly triage a property (which rooms should be good or might be bad may only take 3-4 minutes per room).
4. Slowly walk around all parts of each room and note if the AQI levels rise compared to background.
5. If a room shows elevated particulate matter, it's time to TRACK DOWN THE SOURCE!
6. Once you have covered the Room, hit the blue toggle to stop recording.
7. Return to the Room Menu (back button) to select or create the next Room for surveying.
8. Once you have a complete survey of a property, you can discuss sampling with your client (to determine species of mold or collect formal samples of record).

Mobile App: Enhance Surveys with Photos, Notes, and GPS



- There is a toggle for GPS at the top right of the screen. This will begin logging the location according to the phone's GPS. Note that the GPS location indoors is typically very poor due to the poor signal strength.
- Pressing the small blue plus sign in the lower right hand corner of the app will give you more options to record data.
  - Photos
  - Notes
- You can use photos to record problems in the home. They will be available on the web application and will be included in Reports. This can be done using your phone's camera or from your phone's library
- Notes can be used to annotate recordings as well as record any other observations in the room.
- You can capture Notes and Images while recording both GPS and AQI data without interruption.

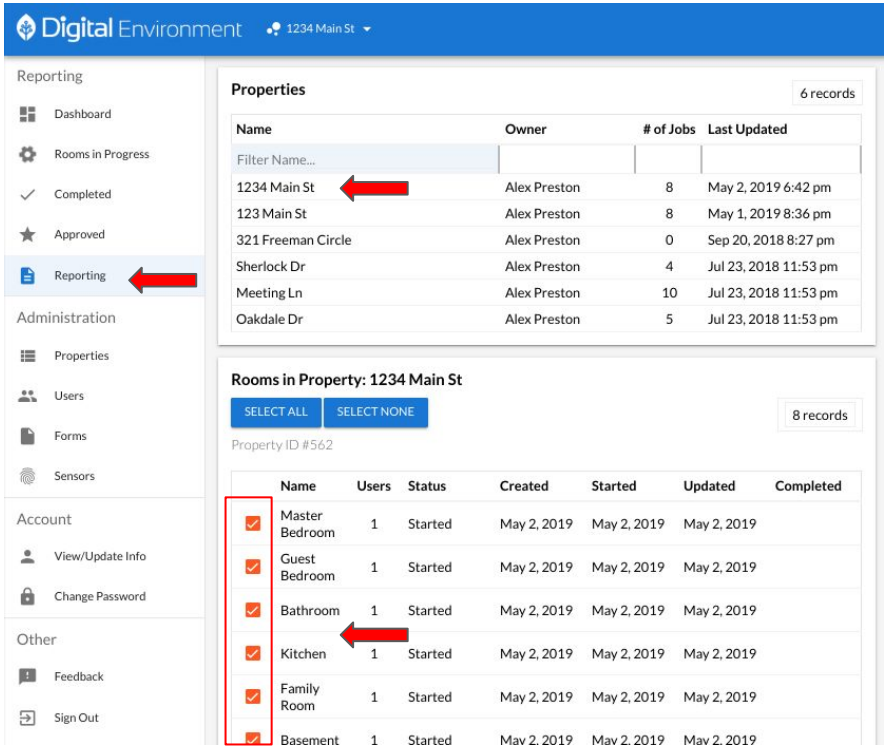
Live Demonstration of Web App - Review Survey Data and Generate Reports

- Select Property at the top of the page.
- Dashboard will show all Rooms and a Map if Rooms GPS location was completed on the Mobile App.
- Select a Room from the table in the Dashboard or go to Rooms in Progress and select room via the blue Change button.
- Show timeline chart for AQI (including zoom), show download csv, discuss statistical summary
- Select Rooms to include in Report
- Generate and download Report

When viewing a Room, you can review the following:

- Master Timeline
- Sensor data
- Photos
- GPS data
- Notes
- Download options

Creating a Report



1. Select the Reporting tab on the left side of the screen
2. Click on the Property you would like to create a report for
3. Check the boxes for the Rooms you would like to include in the report
4. When you click Generate, you will be prompted to name the report
5. The report will be downloaded as a PDF document
6. Attach this to your overall report

Report for Consumer

Project Summary report for: 123 Main St

Home inspection

Owner: Alex Preston (homeins@digienv.com)

Creator: Alex Preston (homeins@digienv.com)

Sensors: Forms via Android/iOS, GPS via Android/iOS, Images via Android/iOS, Notes via Android/iOS, Pocket Particle AQI 1.0, USB for Android, Pocket Particle AQI 2.0, BLE

Pocket Particle 1.0

Activity	# of Meas. collected	PM2.5 Min (µg/m³)	PM2.5 Average (µg/m³)	PM2.5 Max (µg/m³)	PM10 Min (µg/m³)	PM10 Average (µg/m³)	PM10 Max (µg/m³)
Kitchen	21	6.1	6.3	6.5	6.5	6.7	6.9
Family Room	11	5.5	5.8	6.4	5.8	6.1	6.8
Basement	15	5.9	24.9	64.8	6.1	74.1	219.1
Bathroom	12	5.2	5.5	5.8	5.9	6.3	7.1
Outside	18	6.4	7.3	7.6	6.8	7.7	8.4
Guest Bedroom	9	6.7	6.8	7.0	7.1	7.4	8.0
Master Bedroom	13	6.5	6.8	7.2	6.9	7.2	7.6
Master Bathroom	16	6.2	6.4	7.0	6.6	6.8	7.4

Air Quality Index - Particulate Matter	
301 – 500	Hazardous
201 – 300	Very Unhealthy
151 – 200	Unhealthy
101 – 150	Unhealthy for Sensitive Groups
51 – 100	Moderate
0 – 50	Good

Selling AQI Surveys to your Customer Base

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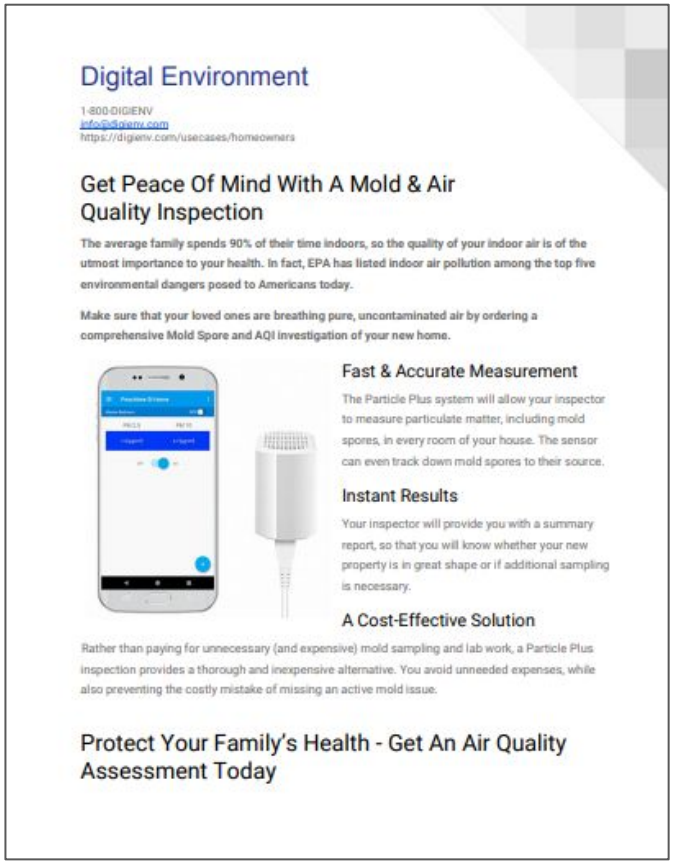
Selling AQI Surveys

- AQI and Mold Sampling can cost hundreds to thousands of dollars and may not find a problem.
  - Mold sampling costs $300 to $1000+ depending on the number of samples
  - Volatile Organic Compounds typically cost $200 - 300 per sample
  - Sampling will not determine where a problem is originating from
  - Sampling can miss issues if not placed in the right location

- The Particle Plus Survey is much less expensive and offers a property owner / buyer a less expensive option to evaluate if problems exist and if additional sampling may be needed.
  - For ~2,000 sqft house, most inspectors charge just an additional $150 for an AQI survey
  - The survey can evaluate if there is a problem and WHERE the problem might be.

- Conduct surveys in just minutes per Room and generate a report for the homeowner in just seconds.

Handouts for Homebuyers / owners



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1-800-DIGIENV
info@digienv.com
https://digienv.com/usecases/homeowners

Get Peace Of Mind With A Mold & Air Quality Inspection

The average family spends 90% of their time indoors, so the quality of your indoor air is of the utmost importance to your health. In fact, EPA has listed indoor air pollution among the top five environmental dangers posed to Americans today.

Make sure that your loved ones are breathing pure, uncontaminated air by ordering a comprehensive Mold Spore and AQI investigation of your new home.

Fast & Accurate Measurement

The Particle Plus system will allow your inspector to measure particulate matter, including mold spores, in every room of your house. The sensor can even track down mold spores to their source.

Instant Results

Your inspector will provide you with a summary report, so that you will know whether your new property is in great shape or if additional sampling is necessary.

A Cost-Effective Solution

Rather than paying for unnecessary (and expensive) mold sampling and lab work, a Particle Plus inspection provides a thorough and inexpensive alternative. You avoid unneeded expenses, while also preventing the costly mistake of missing an active mold issue.

Protect Your Family's Health - Get An Air Quality Assessment Today

- We will provide documents that can be shared with Homebuyers / owners
  - Flyer to explain the service
  - Completely automated report generation
  - A document explaining the results in the report

What to do now?

- Survey your own home - get some practice with what you have learned today
  - Create an activity for baseline and collect some data outside
  - Create an activity for each room
  - Generate report
  - E-mail us the report

- Offer the AQI survey as an add on service to 6-10 customers in the next two weeks.
- We would like to schedule a short follow up meeting in 2 weeks.
- Send us any additional questions, issues, or ideas you gathered from your practice - we are constantly improving the system and value your feedback.