



## **Speck, an in-home air monitor that assesses air quality and counts fugitive dust**

[Deb Smit](#) [March 30, 2015](#) [Business & Tech News](#)

Some days are better than others when it comes to outdoor air quality, especially in Pittsburgh. But what about the quality of the air inside your home?

Speck, a new personal air pollution monitor that sits on your credenza—or anywhere inside—offers an accurate reading of the particulate matter floating around your nose on any given day. Running the sweeper? Watch the reading climb as dust kicks into the air.

The company, founded by Illah Nourbakhsh, professor with CMU's Robotic's Institute, was inspired by his work with Breathe Cam, an online website that uses sophisticated imaging technology called GigaPan to stitch multiple photographs together and create a high-resolution panoramas of air quality over Pittsburgh.

The fist-sized monitor was unveiled this week at SXSW Interactive Festival this month in Austin, Texas and sells for \$200.

Several aspects set Speck apart from similar devices on the market, he explains. First, it works as a particulate counter, recording fine particulates by weight and amount. Secondly, the monitor connects to the Internet, which allows users to explore patterns and compare indoor air

quality to the air quality outside. Lastly, the monitor uses algorithms which makes the data highly accurate.

“We really need devices that make invisible air pollution visible so people have a chance to be empowered to make better choices,” says Nourbakhsh.

About 300 Specks have been deployed in the Pittsburgh region to date, primarily in the homes of people who suffer from asthma or other respiratory conditions. The Heinz Endowments and The Pittsburgh Foundation have purchased another 1000 Specks that will be donated to public libraries, schools and citizens groups and offered on loan.

The Carnegie Library of Pittsburgh in Squirrel Hill will be the first to receive 10 units.

Studies show that human mortality is directly related to the quality of the air we breathe. It is equally important to understand the quality of the air we breathe both inside and outside the home, notes Nourbakhsh.

One common misunderstanding is people assume the air is cleaner in the summer if the windows are closed and the air conditioner is on. In truth, if the an air conditioner is dirty, lacks a proper HEPA filter or the return air system in the house is moldy, the air could be compromised.

“We have so many examples of families testing the unit and finding the air condition was making the air dirtier,” he adds. “With the best of intentions, they were making matters worse. Speck empowers people to make better decisions.”

