

To Set Up and Use the Speck Particle Monitor

Preparation

The first step is to download the Speck app. The Speck app requires relatively recent computer software and operating systems, and **Google Chrome**, and may not load with an old computer using its originally installed operating system.

Information on registering the Speck monitor and setting it up to connect to WiFi are clearly described on the Speck website: <https://www.specksensor.com/what-is-speck>
Follow the instructions to download the Speck app from Google Chrome.

Prior to beginning the process to register your Specks...

1. Write down your customized Speck ID. Lead with your initials_, Speck location_ (I – Indoor or B – Bedroom), Speck ID_, neighborhood abbreviation_, and specific location of Speck
Ex. KAM_I_S002_ELIB_Living Rm Your Speck ID: _____
2. Get the name and password for your wifi.
3. Have your laptop/desktop close to your router (the Speck needs a strong WiFi signal for the initial installation).

The Speck Monitor: Your Customization – Registration

We have already started the registration process for the Specks

Do not change log in email / username or password (we are all one group)

ROCISdata@gmail.com; password: ROCIS1!!

With the Speck Plugged into your Computer and the Speck App Open

- ✓ You should see an image of your Speck on your computer screen – it should be reading the same numbers as the Speck.
- ✓ In the upper right hand corner, select the 2nd icon from the left
- ✓ Do not change any options under “Settings”
 - Keep the Speck set on 1 minute sampling.
- ✓ Open the “WiFi options” (Third icon from left). Connect your Speck to your home WiFi network.
Sometimes it takes several tries, and may show “not connected” prior to connecting.
- ✓ Open the “Uploading options” (Fourth icon from left). Log-in/Register using our group email and password (above).
- ✓ Choose “**Create a new installation location**”. Edit your location using your Speck ID - use our naming convention, described above (KAM_I_S002_ELIB_Living Rm)
- ✓ Using google map, select a geographic location at, or very close to, your home (consider elevation, proximity to outside sources).
- ✓ Speck will default to private settings. Change to **Public**.

NOTE: You do not need to connect the Speck to your computer again unless you are changing the above

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Inputs. Specks in locations with poor WiFi connectivity *may* need to be moved closer to the router periodically to upload to the speck sensor website. **You will see the wifi signal on the Speck screen (lower right corner) when it is connected.**

The Speck Monitor: Managing and Viewing Data Online

1. Once you are registered, you can review your Speck's data online by going to the Speck website and looking at the "**Dashboard**" under the "My Data" tab at the top right. Scroll down on the left to select your Speck. By clicking on the links under the graphic, you can view the house particle count using various units, and also the temperature (and RH with some models) at your meter location.
2. The links at the top of the graph allow you to choose a time period of data to view. The map below the data graph shows the location that you identified during the set-up process.
3. Any part of the graph can be selected and downloaded from the "My Data" view on the Speck website. *This is the only way you should download data!*

Screen Controls and Viewing Data on the Monitor

1. When you plug the Speck into either an outlet or your computer the Speck display should come on. The number displayed with a **small letter "C" at the bottom right is an approximation of the number of particles 2 to 4 microns**, per liter of air. If you want a number that is more comparable to regulatory standards, which are expressed as a mass of particles per liter of air (e.g. PM_{2.5}), touch the number displayed on the screen and a lower value will be expressed, with a subscript "W". This number is roughly comparable to the PM_{2.5} standard. NOTE: it isn't time-weighted like the standard.
2. The screen on the Speck also shows a **colored scale** on the left-hand side with an arrow pointing to one of the divisions. This scale corresponds to the quality of the air due to particles. The word under the display number ("Good", "Moderate", etc.) describes the air quality. It is linked to the scale on the left. *Note: This is only taking particles of the size being counted into consideration; other air pollutants could be present.*
3. If you push the graphic symbol on the top right of the screen, it provides you with a **graph of particle concentrations over the last 12 hours**, so you can see the trends and any short spikes that occurred. **Pushing that graphic a second time gives a trace of the last hour.** Push it a third time to return to the regular screen.
4. The sun symbol below the graphic can be used to **adjust the brightness of the screen**. Cycle through those choices until you have the desired amount of light.

Things to Remember

- ✓ The Speck's internal memory will store two years of data
- ✓ Data is only useful if we have a record of the location of sensor
- ✓ Check "My Dashboard" at SpeckSensor.com to make sure it is uploading data
- ✓ Do not download data with the Speck plugged into the Speck App, as that deletes it
- ✓ You can download data from the SpeckSensor Data screen (upper right hand corner) when viewing data online

Stuck? Contact Linda Wigington, lwigington1@outlook.com, 724-986-0793 (cell) or Kacy McGill, kacy.a.mcgill@gmail.com, 443-567-8990