

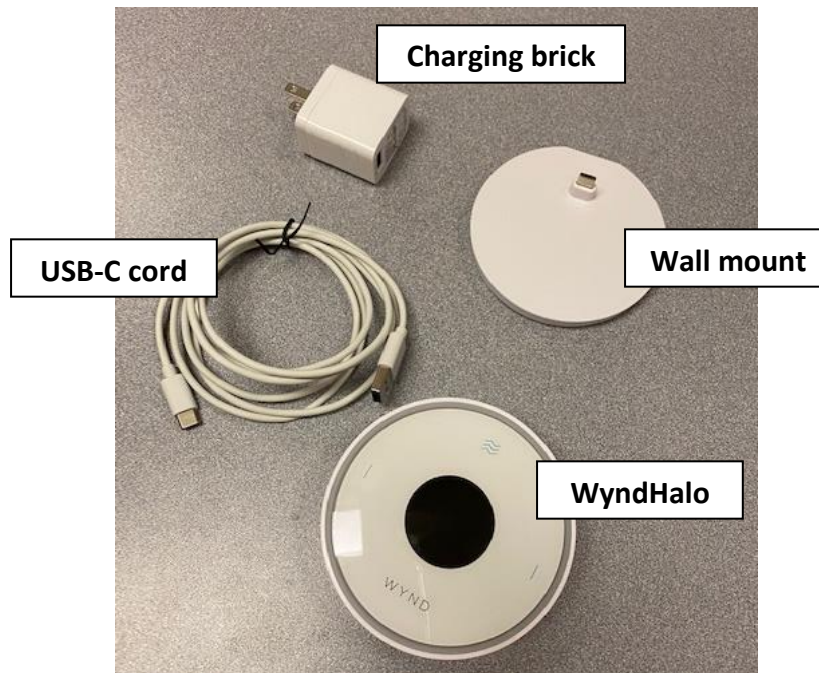
WyndHalo

WyndHalo Air Sampling Protocol

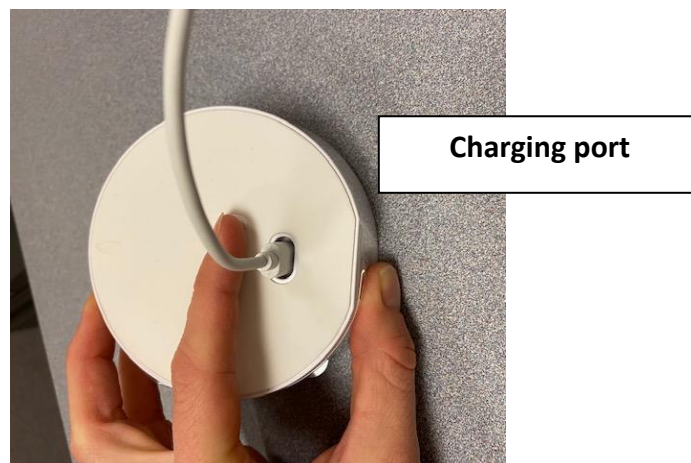
Pre-Sampling and Set-Up

The WyndHalo requires use of the Wynd app on a phone or tablet and can be downloaded by visiting <https://shop.hellowynd.com/pages/app>

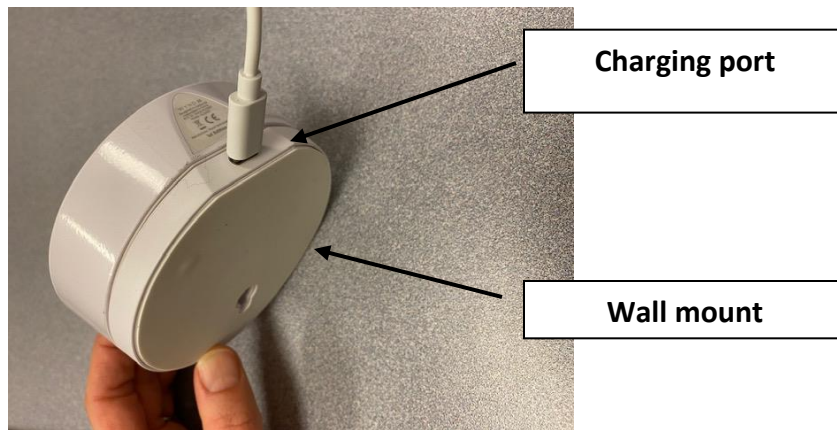
1. The WyndHalo includes a USB-C cord and should be charged fully before each sampling event.



- a. To charge the WyndHalo, plug the USB-C cord into a USB outlet, and then plug the cord into the Wynd Halo's charging port on the back.



- b. Alternatively, the Wynd Halo may be charged using the included wall-mount. Plug the Wynd Halo into the wall-mount. Then plug the USB-C cord into the wall-mount's charge port located on the side of the wall-mount.



- c. If the Halo will be taken into the field for sampling, it should be charged for 5 hours beforehand. A battery icon will appear at the bottom of the screen while charging. The battery icon will disappear when the Halo is fully charged.
 - d. The Wynd Halo may be used to sample while it is plugged in and charging.
(Use only the USB-C cable that came with the WyndHalo to protect it from low-quality third-party cables.)
2. The Wynd Halo also requires a Wi-Fi connection if logging and downloading the data is required.
 3. If no Wi-Fi connection is available, press "Home" at the bottom of the screen and the real-time data will be displayed. The data has to be recorded manually. See **Sampling in the Field with no WiFi** below.
 4. The Wynd Halo must be paired with your phone/tablet before data collection. Open the Wynd app on your phone/tablet and select "Devices" at the bottom of the screen. Then select "Add a New Device" and select Wynd Halo. Follow the instructions in the app to pair the devices.
 5. The screen will ask if you want to use a Wi-Fi network (select Yes) NOTE: Wi-Fi on your phone/tablet needs to be enabled! Put in your Wi-Fi password. (Not your phone password.) Connect your phone Wi-Fi to the Wynd Halo Wi-Fi. Go to Settings on your phone and click on Wi-Fi connection. For example, you would Select "My Network + Halo CE2", on the screen.
 6. The phone should now display, WiFi + Halo ###, on the screen indicating that the Halo is connected to your Wi-Fi network. Each Halo has a different name (ie Halo EK4 is different from Halo CE2). The Wynd Halo should connect to the phone within 2-3 minutes. If it does not connect, move the Wynd Halo closer to the Wi-Fi router. Then retry the pairing procedure.
 - a. If more than one Halo is to be paired, go through the pairing procedure until each Halo has been paired.
 - b. If multiple Halos are being used it is best to give them each a distinct identifier describing the location for example "upstairs bedroom" or "outside entryway".
 7. If you are having problems pairing the Halo, try the following:
 - a. Scroll through the Halo's screens to the "Edit Setting" screen and select "reset WiFi and reboot". Then try the pairing procedure above.
 - b. Move the Halo closer to your WiFi unit during the pairing procedure. Once paired it can be relocated if it is within range of the WiFi transmitting unit (usually about 20 meters).

Sampling

1. Once the Halo has been configured and is connected to WiFi, it will automatically start logging data.
2. You can view the real time data on your phone/tablet by selecting “Home” at the bottom of the screen.
3. You can view trends in the data by selecting “Insights” at the bottom of the screen. The type of data being viewed (PM2.5, CO₂, VOC, Temp, Humidity etc.) can be selected towards the top of the screen.
4. If multiple Halos are paired with your phone/tablet, you can scroll through the devices, each with its own identifier, at the very top of the screen.

Sampling in the Field with no WiFi

1. Make sure the Halo is fully charged before taking it in the field as a remote sensor. You will have about 4 hours of continuous use before needing to recharge the battery.
2. When using the Halo remotely, not connected to WiFi, the normal pairing procedure is omitted.
3. Rather, on the Halo screen that says “Wynd Halo is waiting to pair” select “can’t pair” at the top of the screen. Then select “cancel pairing” on the left side of the screen.
4. After the Halo is warmed up it will display the Wynd Score. Hitting the button on the right-hand side once will take you to the **Comfort** screen which displays the temperature, humidity, CO₂ level, and light level.
5. Hitting the right-hand side button a second time will take you to the **Health** screen where PM 1.0, PM 2.5, PM 4.0, PM 10, and VOC concentrations are shown.
6. Data shown on the **Comfort** screen and the **Health** screen must be recorded manually as the Halo is not connected to any device where auto logging of data is occurring.

Post-Sampling data download

1. Once sampling is complete, export the collected data as a .csv file. This can be done from the “Profile” screen on the app.
 - a. Select the “Profile” icon on the bottom right corner.
 - b. Select “Export data as CSV”.
 - c. Select the device(s) which the data is to be exported from.
 - d. Select data averaging and choose: 1 minute, 5 minute, or 15 minute. For long sampling periods of 24 hours or more, data averaging every 15 minutes is adequate.
 - e. Select the date range for all data if that is wanted. Note: the data for all 14 air quality factors will be displayed for the date range chosen.
 - f. Select where the .csv data file is to be exported. Commonly it can be sent as an email, but it can also be sent to a drive if your phone/tablet is configured with that option.
2. Download and open the .csv sent to your email.
3. Select “File” and then “Save as” an Excel file to your computer or storage device.
4. If you are unable to save the .csv as an Excel file directly, you can leave the file in the .csv format and open from Excel directly. The csv file can also be opened in Sheets if you are using the Google app.
5. If you are sampling remotely with no WiFi connection, you will not be able to download your data as described above. The data must be recorded manually.