GUIDE TO BEING A COMMUNITY AIR TRACKER

INHALE Toronto

INHALE TORONTO

TORONTO ENVIRONMENTAL ALLIANCE

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INHALE is a joint project of the Toronto Environmental Alliance and Environment Hamilton, with funding from the Metcalf Foundation

About the INHALE Project

INHALE is the Initiative for Healthy Air & Local Economies. Jointly led by Environment Hamilton and the Toronto Environmental Alliance, this two year project puts local air quality monitoring into the hands of community members.

The program engages community volunteers in monitoring urban air quality at the 'street level' in Hamilton and Toronto. Using easy-to-operate mobile air particulate monitoring equipment designed to be attached to backpacks, bikes, baby strollers, walkers or scooters, volunteers will walk, run, roll or ride through their neighbourhood collecting air quality data as they go.

Air monitoring results will be shared with the broader community, along with the economic, environmental and human health impacts of bad air quality. The aim is to use air monitoring data to spark neighbourhood conversations about improving local air quality by developing solutions that can be initiated by the community.

The first INHALE Toronto project area is the New Toronto, Mimico and Long Branch neighborhoods of South Etobicoke.

In spring of 2016, we'll be moving into Toronto's downtown core!

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What are Community Air Trackers?

Community Air Trackers are 'citizen science' volunteers who collect air quality samples in their community using simple and compact air particulate pollution monitoring equipment.

Our air monitors are light weight and mobile, which means you can take one with you on your trips around the community. collecting air quality data on the go! The monitors can be attached to bike handlebars, strollers, backpacks, jogging belts, walkers and more!

Community Air Trackers typically borrow the monitors for 1-2 weeks at a time, gathering data in their local area or in particulate air pollution "hot spots" in the area.

The Monitors

The air quality monitors take a reading every ten seconds and measure PM 2.5 particles. This reading is displayed on the device

Top tips:

1. To turn on the monitor, flick up the "battery charge" switch on the side. If the monitor does not turn on, press the power button under the screen on the far left side.
2. Make sure there is ample air flow to the back of the device while monitoring. This is where air flows in and out of the device for a reading every 10 seconds. .
3. To charge the monitor, plug in the device and make sure the battery charge switch is flipped up.
4. The monitors can be taken out in all seasons. However,, please ensure the monitors are not exposed to rain, snow or other adverse weather conditions.
5.. The battery will last for 5-6 hours when fully charged. Charge overnight before monitoring to ensure the monitor is fully charged.

The GPS Device

The GPS device tracks your location as you monitor the local air quality. We can then match up the readings to the location where they were taken.

Top tips:

1. To turn on the device, hold down the power button on the top right corner for 5-10 seconds, until you hear a beep and the the lights turn on.
All lights on the front of the device should be lit up.
2. Turn on the GPS device a few minutes before you go on your monitoring route. It may take up to 5 minutes for the device to get a satellite signal, which means it is reading your location. When the GPS has a signal, the device will beep and continuously flash green.
3. If one of the three icons on the front isn't lit up, just press the top power button repeatedly until all of the front lights turn on.
4. Promptly turn off the GPS at the end of the your monitoring route by holding down the top right power button.
6. The GPS can hold a charge for more than 12 hours. You can charge if you plan to monitor for more than 12 hours.

Monitoring

The air quality monitor has four Velcro straps attached to it so it can easily and securely be strapped on to bike handlebars, strollers, and backpacks. Try not to loosen the straps wrapped around the monitor as they are holding the monitor in place. The two "hoops" on the back of the monitor are straps to attach the monitor to bikes, strollers, backpacks, mobility devices and more.

The GPS can be kept in your pocket or backpack, or a bag while you are monitoring. When you are done, you can simply turn off both devices.

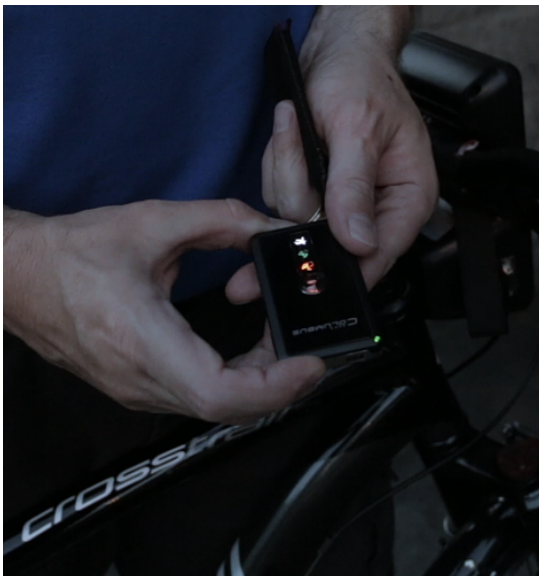
Where does the data go?

The Monitor

After you finish monitoring, the monitors go back to the INHALE Project team. First, we take the data off the monitors using a special computer program. The monitors take a sample every ten seconds and record the number of particles in the sample along with the date and time the sample was taken.

The GPS

Next, the INHALE Project team takes a small micro SD data card out of the GPS device. Similar to the air monitor, the GPS device records where you went and puts a time stamp on the data.



The Map

After both the GPS and the monitor data files are downloaded, they are uploaded to the map. The map matches the air monitoring data to locations based on the time stamp. After you monitor with INHALE, we'll send you a unique login to the online map so you can see your exact route and the data you gathered. Only you will be able to see the exact route you took.