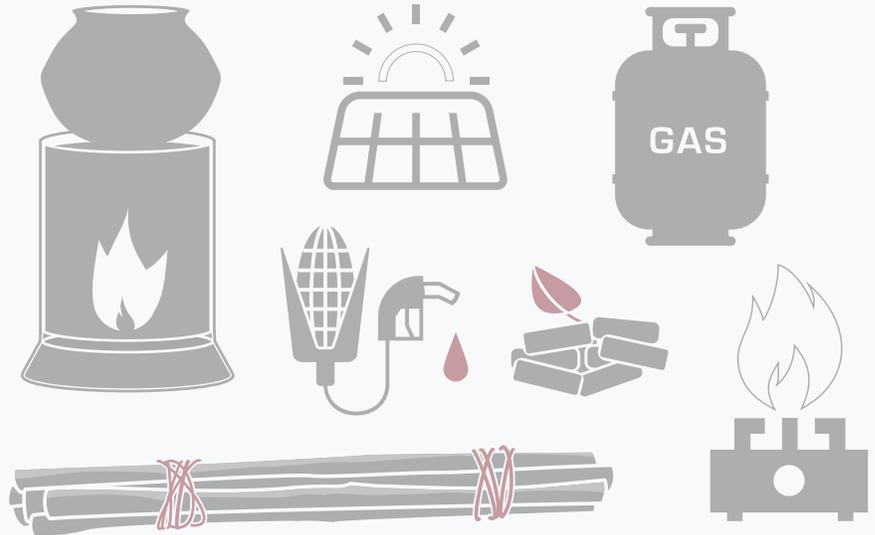


# StoveTrace IoT Platform FAQ



## STOVETRACE IOT PLATFORM

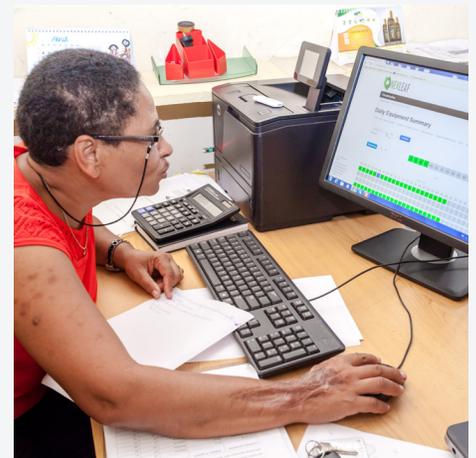
StoveTrace enables Nexleaf's clean cooking program which aims to identify a basket of cooking solutions that women will love and will achieve verified climate and health impact. StoveTrace consists of a device, mobile app, and data dashboard.



**StoveTrace Trek** measures cooking activity on improved cookstoves, enabling true assessment of stove adoption success, comparison of different stove models, and potential to increase continued stove use.



The **StoveTrace Trek** mobile app pairs with Trek to download the cooking data.



**StoveTrace Analytics** is a data dashboard which aggregates cooking data and provides analytics on cooking activity.

Contact your Temperature Monitoring Deployment Advisor or Nexleaf at:

**INFO@NEXLEAF.ORG**

# Frequently Asked Questions



## HARDWARE

### What is Trek?

Trek is the device that makes cookstove monitoring possible. Trek attaches to the stove and, with a sensor, measures and logs temperature as cooking occurs. Paired with the mobile app and StoveTrace Analytics dashboard, Trek provides at-a-glance analytics on cookstove use.

### How does Trek attach to a stove?

Trek and the sensor are connected to a J-bar which is slung over the mouth of the cookstove. This enables the heat to be conducted along the bar and to the sensor, while keeping Trek away from direct flames and heat.

### Does the Trek device get burnt or damaged from the stove?

Trek will not get damaged as long as it is properly installed on the stove. Proper installation requires the device be placed on the outside of the improved cookstove and away from open flames. Improper installation

or misuse of the stove can lead to damage or destruction of Trek. The device will function properly between -20 °C and +50 °C and the external sensor used with Trek can handle temperatures up to 300 °C. See warranty information below for detailed operating conditions.

### What temperature range can Trek measure?

Trek, with the external sensor, can sense temperatures from 0 °C to 300 °C degrees.

### What types of cookstoves can Trek be used on?

Trek has been designed and tested for various models of improved biomass cookstoves, including forced-draft and pellet stoves, as well as liquefied petroleum gas and ethanol stoves. Research is currently underway on its use on induction and solar cookers. Additionally, Trek can be placed on traditional stoves (chulha, three stone fire) but please note that data accuracy is not as strong.

### Will you replace Trek if it breaks?

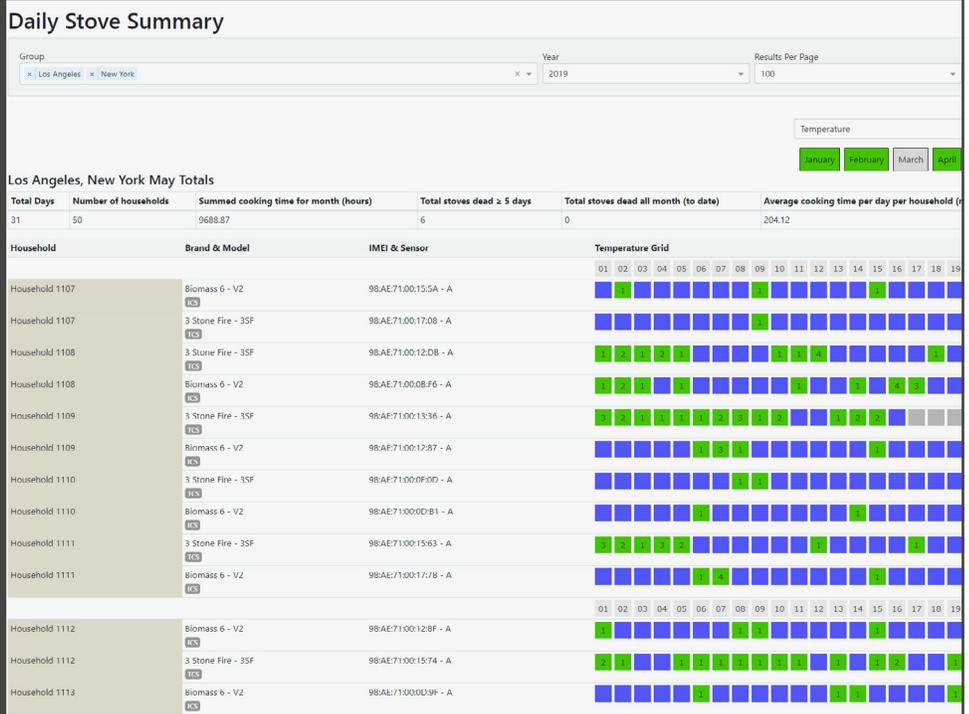
Trek comes with a lifetime limited warranty. Limitations include:

- Exposure to physical damage or environmental stress such as being dropped, hitting the ground, being placed under heavy objects, or placed near a heat source that exceeds +50 °C.
- Being placed so that it touches either ice or water at freezing temperatures.
- Being submerged in water
- Opened by anyone other than a certified Nexleaf representative.
- Lifetime is defined by the time it takes for the battery to run out of power, which is typically 2 years.

### How much does Trek cost?

As a non-profit organization, we want to build strong partnerships around the data. Please contact us at [info@nexleaf.org](mailto:info@nexleaf.org) to discuss the project in mind.

# Frequently Asked Questions



## DATA & ANALYTICS

### How is data collected by Trek uploaded to the StoveTrace Analytics dashboard?

The mobile app is used as an intermediary step to getting data from Trek to StoveTrace Analytics. The Trek app can download data from any Trek device located up to 10 meters away. The data is automatically uploaded to StoveTrace Analytics once an internet connection is established with cellular data or wifi.

### How often do I have to download data from Trek?

Data storage on the Trek device depends on the sampling interval, which can be set to collect data every 1 to 60 minutes. At 1 minute Trek will store data for 12 days, and at 10 minutes it will store data for 4 months. Downloading to the app is recommended every 7 days to ensure no data gaps.

### What are the requirements for the Trek app?

The Trek mobile app is available for Android smartphones on the Google Play Store, and requires OS 5 or higher as well as Bluetooth capability. You will need a SIM card with a data plan and/or a reliable wireless connection.

### What can I see on StoveTrace Analytics?

StoveTrace Analytics offers many dynamic data views. You can access cooking information by household, village, or entire groups of stoves. You can view such data as number of cooking events per day or frequency of use over time.

## Hardware Specs:

**Dimensions (l x w x h):** 7cm x 5.5cm x 2.5cm

**Weight:** 45 grams

**Data Collected:** Temperature

**Storage Rate/Data Logging Intervals:** Customizable, 1 to 60 minute interval

**Configuration Inputs:** Device nickname and storage interval in app

**Data Upload:** Via tablet or smartphone (2G, 3G, 4G, WiFi)

**Temperature Data Storage:** 4 months (at 10 minute storage rate)

**Sensors:** Single, robust replaceable external sensor cable

**Temperature Data Download:** Via Bluetooth to tablet or smartphone

**Data Download Range:** up to 10 meters

**Battery:** 2 year lifetime, non-replaceable/non-rechargeable lithium battery

**Certification:** CE Certification and IEC 62368-1:2014

**Temperature Range:** 0 °C to +300 °C

**Temperature Accuracy:** ±1 °C

**Temperature Resolution:** 0.1 °C

## App Features:

**Smartphone / Tablet OS:** Android Lollipop (5.0) or newer

**Available on Google Playstore**

**Logger Limit:** No limit on data loggers being monitored

**Localization:** App available in different languages upon request

**History:** View download history and confirmation of upload to server

**Data Download from Trek:** Download data stored on device via Bluetooth to phone/tablet

**Data Upload from Phone / Tablet:** App automatically uploads data to dashboard via available network (2G, 3G, 4G, WiFi)

**Data View:** App displays current temperature and historical performance immediately

## Dashboard Features:

**Data Views:** Integrated with existing data visualization

**Secure Website:** Provides full data access only to authorized users

**Data Hosting:** Cloud storage. In-country with additional cost.

**Localization:** Dashboard available in different languages upon request



To scan QR code, open the camera app and point directly at the QR code. A notification will appear, click to open the content.