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# Rain Collector Sensor

Product Number: ENRNCOL



## Overview

One of the most important factors in weather studies is studying rainfall. Designed according to the guidelines of the World Meteorological Organization, the Rain Collector sensor features an exceptionally accurate self-emptying tipping-bucket design. The Rain Collector sensor collects data on both daily and accumulated rainfall.

The Rain Collector sensor can be connected to all types of einstein™ data loggers. It can be used for various experiments in Environmental Science.

## Typical experiments



### Environmental Science

- Average rainfall
- Daily & annual rainfall

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## How it works

Rain enters the collection cone, and collects in one chamber of the tipping bucket. The bucket tips when it has collected .2 mm of water. As the bucket tips, an internal switch closes, causing the rain to begin draining into the second tipping bucket and sending a pulse to your einstein™ device which calculates the rainfall according to the number of pulses it receives.

## Sensor specification

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Range:	0 – 999.8 mm
Accuracy:	± 0.2 mm
Resolution (12-bit):	0.02 mm
Data Logger Input Type	Digital

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Note: Sensor cable sold separately

## Calibration

The Rain Collector sensor requires no calibration.

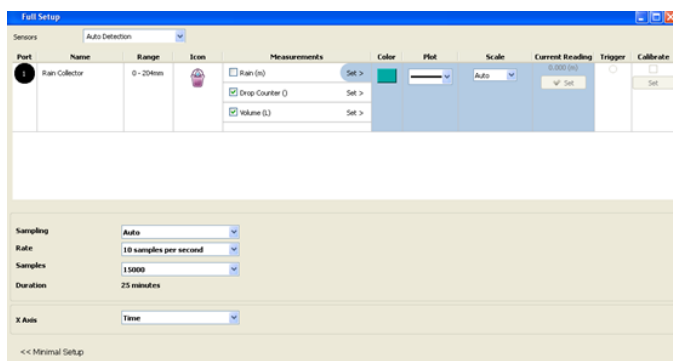
## Data logging and analysis


### MiLAB™

1. Take your einstein™ Tablet OR pair your einstein™ LabMate with your Android or iOS tablet via Bluetooth
2. Plug the cable attached to the Rain Collector bucket into the telephone plug adaptor
3. Plug the DT adaptor into the telephone plug adaptor
4. Plug the DT-to-einstein™ adaptor into the DT adaptor
5. Plug the sensor cable into the DT-to-einstein™ adaptor
6. Insert the sensor cable into one of the sensor ports
7. Launch MiLAB
8. In Launcher View, tap the box marked “Empty” and select Rain Collector from the dropdown list
9. Check the icon next to the sensor (  ) to enable it for logging

### MiLAB™ Desktop

1. Pair your einstein™ LabMate with your PC, MAC, or Linux machine via Bluetooth, or connect it via the USB cable (found in the einstein™ LabMate box)
2. Plug the cable attached to the Rain Collector bucket into the telephone plug adaptor
3. Plug the DT adaptor into the telephone plug adaptor
4. Plug the DT-to-einstein™ adaptor into the DT adaptor
5. Plug the sensor cable into the DT-to-einstein™ adaptor
6. Insert the sensor cable into one of the sensor ports
7. Launch MiLAB
8. Click on Full Set up in the Current Setup Summary Box
9. Scroll down to the box marked “Empty” and select Rain Collector from the dropdown list
10. Click Full Setup, located at the bottom of the Current Setup Summary window to program the data logger’s sample rate, number of samples, units of measurement, and other options



11. Click the Run button (  ) on the main toolbar of the Launcher View to start logging

## Experiment set up

This Rain collector sensor is equipped with:

- A collection cone with two tipping buckets
- A telephone plug adaptor
- A DT adaptor
- A DT-to-einstein™ adaptor
- The Rain collector sensor

## Technical support

For technical support, you can contact the Fourier Education's technical support team at:

Web: [www.einsteinworld.com/support](http://www.einsteinworld.com/support)

Email: [support@fourieredu.com](mailto:support@fourieredu.com)

## Copyright and Warranty

All standard Fourier Systems sensors carry a one (1) year warranty, which states that for a period of twelve months after the date of delivery to you, it will be substantially free from significant defects in materials and workmanship.

This warranty does not cover breakage of the product caused by misuse or abuse.

This warranty does not cover Fourier Systems consumables such as electrodes, batteries, EKG stickers, cuvettes and storage solutions or buffers.

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