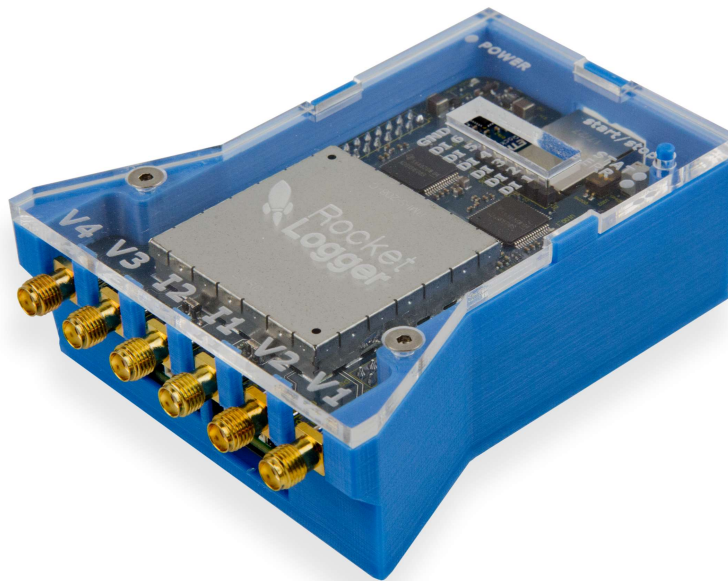


## The RocketLogger – Getting Started



### 1 Introduction

Congratulations! You are almost ready to start measuring with the RocketLogger. This document explains how to install the device and start up the control interface.

### 2 Package Contents

Please check the delivered parts. In your package you should find the following components:

- 1 Rocket Logger
- 1 Ethernet cable
- 1 USB cable
- 1 Set of clips
- 2 Voltage measurement cables
- 1 Current measurement cable
- 1 Printout of this document

### 3 Specification

Technical specification of the RocketLogger is available on the following page.

<https://git.ee.ethz.ch/sigrist/rocketlogger/wikis/datasheet/>

## 4 Initial Operation

To use the RocketLogger, a local area network is needed. The device's features are accessible via the embedded web server upon successful setup.

Note: To avoid damage to the device, read the related pages on the RocketLogger Wiki and make sure you don't exceed the maximum ratings.

<https://git.ee.ethz.ch/sigrist/rocketlogger/wikis/home>

### 4.1 Hardware Setup

Connect the logger to your local network using the provided Ethernet cable. To power the device, you also need to connect it to a USB port of your computer or to any other USB compliant source providing 5V at 500mA (such as a power bank or proper USB charger).

### 4.2 Network Setup

The RocketLogger will receive its IP address from the network's DHCP server. Ask your network administrator for help with network issues. For stand-alone use, it is possible to install a DHCP server on your computer and connect the device directly.

Once connected, the RocketLogger's user interface is accessible from the web browser. Simply type in the IP address of the logger in the browser's address bar.

For example <http://192.168.1.191>

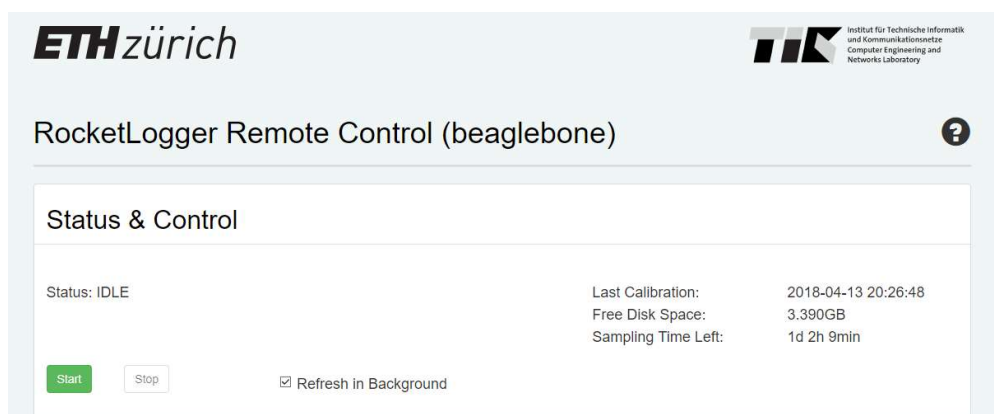
To find out the device's IP address, type "arp -a" on your computer's command line or use WakeMeOnLAN: [https://www.nirsoft.net/utils/wake\\_on\\_lan.html](https://www.nirsoft.net/utils/wake_on_lan.html) and look for any device with a Texas Instruments network adapter.

### 4.3 Login

A login screen will be prompted if the network setup was successful. Use below credentials to log in.

Login: rl  
Password: rl

Now you should see the RocketLogger's control interface. You're ready to start measuring.



## 4.4 First Measurements

Please use the provided cables and clips for measurements and read the more detailed measurement manual to avoid inappropriate use of the device.

<https://git.ee.ethz.ch/sigristl/rocketlogger/wikis/measurement-manual>

### 4.4.1 Current Measurement

Connect the current measurement cable (two poles, with red and black wire) to ports I1 or I2 of the logger. Apply a current and make sure you operate the device within specs.

Note that both current measurement inputs share a common ground (black wire).

### 4.4.2 Voltage Measurement

Connect the voltage measurement cable (one pole) to one of the ports V1 to V4. Also connect a current measurement cable as described above. Apply a voltage between the black wire of the current measurement cable (ground) and the voltage measurement cable.

Note that in order to measure a voltage, a current probe always needs to be connected to the logger to provide ground.

## 5 Further Reading

### 5.1 The Open-Source Project

You get loads of information on the design and use of the RocketLogger from the original project page. You will even find the schematics, PCB layout and manufacturing files for the housing there.

<https://rocketlogger.ethz.ch>

Of particular interest will be the Wiki page and repository of the project.

<https://git.ee.ethz.ch/sigristl/rocketlogger/wikis/home>

<https://git.ee.ethz.ch/sigristl/rocketlogger/>

### 5.2 Academic Publications

The research group of Lukas Sigrüst and Andres Gomez (who developed the RocketLogger) have published a number of papers and theses on the logger and its application.

- 2016 Thesis: Mobile Data-Logger for Ultra-Low Current and Power Measurements  
<https://pub.tik.ee.ethz.ch/students/2016-FS/SA-2016-40.pdf>
- 2016 Paper: RocketLogger - Mobile Power Logger for Prototyping IoT Devices  
<https://pub.tik.ee.ethz.ch/people/sigristl/SGLLLT2016.pdf>
- 2017 Paper: Measurement and Validation of Energy Harvesting IoT Devices  
<http://pub.tik.ee.ethz.ch/people/sigristl/SGLLLT2017.pdf>
- 2017 Slides: Measurement and Validation of Energy Harvesting IoT Devices  
[http://www.tik.ee.ethz.ch/db/public/tik/?db=publications&form=report\\_single\\_publication&publication\\_id=4621](http://www.tik.ee.ethz.ch/db/public/tik/?db=publications&form=report_single_publication&publication_id=4621)
- 2016 Demo: RocketLogger - Mobile Power Logger for Prototyping IoT Devices  
[http://www.tik.ee.ethz.ch/db/public/tik/?db=publications&form=report\\_single\\_publication&publication\\_id=4618](http://www.tik.ee.ethz.ch/db/public/tik/?db=publications&form=report_single_publication&publication_id=4618)