

This page covers the questions and problems we are asked about most. If your issue is not listed here, please get in touch and we will be glad to help.

Recording and launch detection

The Nano started recording before launch

Launch is detected when the altitude rises above your launch detect setting, which is 30 m by default. On a gusty day, or with a low launch detect, a strong gust can look like a launch, and so can pulling the nose cone off or opening the payload section quickly to check on something. On Rev4 and later boards the launch protection setting also cross-checks the acceleration, which helps rule out false triggers. We suggest leaving launch detect at the default 30 m unless you expect to fly below about 40 to 50 m. One habit worth getting into: opening or refitting the nose cone or an electronics bay cover quickly can briefly drop the pressure inside, like a small vacuum, which can look like a launch. So after replacing a cover, always glance at the Nano and check it is still flashing green for ready, rather than showing purple, which would mean it has started recording. There is more on tuning this on the flight mode page.

It kept recording all the way to the maximum number of samples

The Nano records up to 24,000 samples. If it filled the whole log, check your recording stop setting. The default stops recording a few seconds after it detects a stable landing, but if you have set it to stop only at the sample limit, it will keep going until it reaches 24,000 samples or the battery gets low. There is more on this setting on the settings page.

Saving and your data

My flight log was not saved

This should be rare. The Nano keeps a recovery buffer and will rebuild any flight that did not save normally the next time you power it on, so please be patient, as that can take 10 to 45 seconds for a large flight. If there really is no log at all, it almost always means launch was never detected. The most likely reasons are:

1. Your rocket did not reach the launch detect altitude you set.
2. The battery ran out before launch.
3. The Nano was in a sealed part of the rocket with no vent holes, so it could not sense the change in altitude.
4. The inside of the rocket became too hot and the Nano shut itself down to protect the battery.
5. A USB cable was connected, which keeps the Nano in USB mode instead of flight mode.
6. You forgot to switch it on (it happens to all of us).
7. Faulty or damaged hardware.

There is more on the backup system on the log recovery page.

My flight log says it did not pass security and will not upload

This means the log no longer matches its verification signature, so Altimeter Cloud will not accept it. Almost always it is because the file has been changed since the Nano wrote it, even slightly. Opening a CSV in a spreadsheet and saving it, or any manual edit, is enough to break the signature. Upload the original file straight from the Nano without opening and saving it anywhere else first. If you only have an edited copy, simply copy the original off the device again. If a file you are sure is untouched still fails, it may have been corrupted while copying, so try copying it again, and if it keeps failing please contact us. There is more on the security and flight log verification pages.

Angles (Revision 4 and later)

My tilt or angle figures look wrong

The angles only work if the Nano is mounted firmly to the rocket and the orientation setting matches how it sits. They will not be right if the altimeter is loose on a shock cord, as it needs to be held still at a known orientation. Set the orientation in the settings, mount the board solidly, and calibrate the sensors for the most accurate result. There is more on the calibration, settings and accuracy pages.

Battery and charging

How do I know when it is fully charged?

The simplest sign is the charge LED, which stays lit while charging and goes out once the battery is full, around an hour from nearly flat. If you also turn the battery switch on while it is plugged in, the status light breathes blue and flashes a colour for the charge level, flashing green when it is full. Those colour flashes only appear with the switch on; the charge LED works either way. There is more on the battery page.

It ran out of power during a flight

A full charge gives around 4 hours 40 minutes in efficiency mode 2, and about 3 hours 40 minutes in mode 1, so a full charge before a day of flying should be plenty. If the battery does drop to around 3.1 V the Nano stops and saves the flight on its own to protect the cell. If your run time is much shorter than that from a full charge, the battery may be worn or faulty, so see the battery page about replacement.

My Nano got very hot after a heavy landing

A hard impact can damage the internal battery, and a damaged lithium cell can warm up. If your Nano becomes hot after a heavy landing, switch it off, unplug any cable, and stop using it. It is unlikely to catch fire, but as a sensible precaution put it somewhere safe, away from anything flammable, and leave it there for a few hours while you keep an occasional eye on it. Once it is cool and settled, dispose of it safely as you would any damaged lithium battery; there is guidance on the safety page. If you are at all unsure, please contact us and we will advise.

USB and connecting

I connected a USB cable but nothing happens

The Nano enters USB mode on its own whenever it is plugged in, so you do not need to switch it on first. If it does not appear on your computer, the most common cause is a power only USB cable with no data lines, which are surprisingly common with chargers, so try a different cable. If you have a serial monitor or another USB tool open, it can block the connection, so close it and try again. The battery switch does not affect USB mode at all; it only needs to be on if you want to see the battery state on the LED while charging. Remember too that a connected USB cable keeps the Nano in USB mode, so it will not enter flight mode until you unplug it.

Altimeter Cloud

The charts on Altimeter Cloud are not loading

The charts use JavaScript, so the most likely cause is that JavaScript is turned off or blocked in your browser. Enabling it should fix the display. As an alternative you can download the CSV and chart it in the software of your choice.