After landing

Altimeter Cloud

Once your rocket has landed, the Nano takes care of the rest on its own. It stops recording, saves the log, then goes to sleep. You can read the flight number and apogee straight off it, before you open the rocket, with a shake.

THE SHORT VERSION

With the default settings, leave the Nano alone until the save has finished. It then gives a short red flash and sleeps. Give the rocket a firm shake for a second or two and the Nano blinks the flight number, then the apogee. Each shake gives one readout.

Ending the recording

The Nano keeps recording all the way down and stops once the altitude has stayed steady after landing: 8 seconds of steady altitude by default, or 16 seconds, or only when the log is full, set by `recording_stop` on the settings page.

It also stops if the log fills or the battery runs low, and everything recorded so far is saved. If the battery goes completely flat before the save, the Nano switches off and rebuilds the flight from its backup copy the next time it starts.

There is no LED signal at apogee or landing.

Saving the flight

When recording stops the LED turns pink and the save begins. The Nano processes the altitude with TrueFuse and TruePath, works out the apogee and the other flight figures, then writes and signs the log and its flight info page. It reads the log back to check it before it clears the backup copy kept during the flight.

LED	What it means
Pink	The save has started
Red, green, then white	Combining the barometer and motion sensor data (TrueFuse)
Red, green, then orange	Removing spikes and smoothing the altitude (TruePath)
Red, green, then blue	Writing and signing the log and its flight info page
Solid blue, then 20 fast white flashes	Saved and checked

A long log can take up to about 2.5 minutes, and longer on a low battery, so leave it switched on until the white flashes. If you don't see them, the check failed: the backup copy is kept and the save is tried again at the next power-on. See log recovery.

If the drive is short of space, the oldest logs are removed first, only as many as needed, and never the flight just recorded.

After the save

What happens next is set by `maintain_power`:

Setting	After the save
0 (default)	A short red flash, then sleep, watching for a shake
1	Blinks the apogee until you switch it off
2	Blinks the apogee for 4 minutes, then sleeps
3	Blinks the apogee for 10 minutes, then sleeps

In settings 1 to 3 only the apogee is blinked, not the flight number. Plugging in USB while it blinks restarts the Nano into USB mode.

Shake to read

While it sleeps after a save, the Nano keeps watch with its motion sensor at very low power. A firm shake for a second or two wakes it to blink the flight number, then the apogee, and then it goes back to sleep. Each shake gives one readout, so you can check the result as often as you like before you get the rocket home.

- Pressing the button or plugging in USB during a readout ends it and starts the Nano up fully.
- If the battery is low, it sleeps without watching for a shake, so only the button or USB will wake it.
- Shake to read needs the motion sensor, so it works on Revision 4 and later boards. Earlier boards sleep and wake on the button or USB.

Other ways to read the result

- **Press the button** while it sleeps. It starts up fully and, with `show_altitude` at 1 (the default), blinks the last flight number and apogee at the end of start-up.
- **Switch it off and on again.** The same start-up readout plays.
- **A short press of the button** on the pad or in USB mode plays the readout at any time.

READING THE BLINKS

Every readout is for the most recent flight only. Earlier flights can be checked on the flight info pages or the Altimeter Cloud. Each readout starts with lead-in blinks, red for the flight number and white for the apogee, then each digit is blinked as a count in its place's colour, with a long hold for a zero. The altitude blinking page shows the colours and worked examples.

Getting your data

Connect the Nano to a computer with a USB cable and it appears as a drive holding your flight logs, ready to upload to the Altimeter Cloud for charts, verification and sharing. You can also upload straight from the Nano with the USB upload tool. See the USB connection and Altimeter Cloud pages.