

Once your rocket is on its way back down, the Nano takes care of the rest on its own: it works out that the flight is over, saves the log, and gives you a way to read your apogee before you have even picked the rocket up. Here is what happens, step by step.

Ending the recording

The Nano keeps recording all the way down and only stops once it is sure the rocket has landed. It does that by watching the altitude: when the height has held steady for a set period, with no more climbing or falling, it decides the flight is over and moves on to saving.

How long it waits for that steady altitude is set by the recording stop setting. By default it stops after about eight seconds of stable altitude, which suits most flights. You can change it on the settings page to about sixteen seconds if you want a longer descent or a drifting landing fully captured, or set it to keep recording right up to the sample limit. Either way, the Nano will always stop and save if it reaches its maximum sample count or if the battery runs very low, so a recording can never be left open forever.

Saving the flight

With recording finished, the Nano cleans up the flight with its True Path processing, works out the apogee and the other flight figures, and writes the whole thing to its drive as a flight log along with a matching flight info page. The log is signed with a secure hash as it is written, so it can later be verified as genuine and unedited.

If the drive is getting full at this point, the Nano makes room by deleting the oldest logs first, and only as many as it needs to fit the new one in. It will never delete the flight it has just recorded. This tidy up happens here, at save time, not when you next switch the device on, so the flight you have just flown is always the one that is kept.

Once the log is safely saved, the Nano clears the backup it was keeping during the flight, as there is no longer an unsaved flight to recover. You can read more about that safety net on the flight log recovery page.

Reading your apogee off the pad

If the maintain power setting is on, which it is by default, the Nano stays awake after saving and blinks out the apogee altitude in colour, one digit at a time, with a different colour for each digit place, right down to one decimal place. That lets you read your peak height straight off the landed rocket before you even reach it. Here is how to read it:

Reading the altitude flashes

The Nano blinks the apogee height in metres to one decimal place, one digit at a time, most significant digit first, with leading zeros skipped. Each digit place has its own colour:

● 10,000s ● 1,000s ● 100s ● 10s ● 1s ● 0.1s

- A burst of quick white blinks that slow down, ending in a long white flash, marks the start of each reading.
- The number of blinks in a colour is that digit's value (1 to 9).
- A digit of zero is shown as one long, steady hold of that colour, about 2.5 seconds against the half second of a normal blink.
- The light simply goes dark for a moment between one digit and the next.
- After the last digit there is a short pause, then it repeats. Connect USB or power-cycle to stop.

Example readout, 246.4 m

Reading left to right: the white start flashes, then green twice for the 2, cyan four times for the 4, yellow six times for the 6, and blue four times for the .4, which is 246.4 m. The light goes dark for a moment between each colour.

If you would rather it did not, turning maintain power off makes the Nano shut down its sensor and light and sleep as soon as the log is saved, until you next cycle the power. Your log is saved either way, the setting only changes whether it stays awake

to show you the apogee.

You do not have to wait for the automatic display, either. A short press of the boot button blinks out the most recent flight's apogee on demand, at any time. It works whether the Nano is sitting on the pad on battery or plugged into a computer over USB, so you can recall your last peak height whenever you like.

Getting your data

When you are ready, connect the Nano to a computer with a USB cable and it will appear as a drive holding your flight logs, ready to open or to upload to the Altimeter Cloud for charts, verification and sharing. There is more on the files and on uploading in the USB and Altimeter Cloud sections of this manual.