How the LED shows altitude

The Nano can blink the flight number and apogee of your most recent flight on its status LED, one digit at a time in colour, so you can read the result straight off the rocket with no computer or cable.

When it plays

- **At switch-on.** With `show_altitude` at 1, the default, the Nano blinks the last flight number and apogee at the end of start-up, then carries on to the pad.
- **A short press of the button.** On the pad or in USB mode, a quick press of under 2 seconds plays the readout at any time. Launch detection pauses while it plays. If no flight is stored, it gives one short purple blink instead.
- **A shake after landing.** By default the Nano sleeps once the flight is saved. On Revision 4 and later, a firm shake for a second or two blinks the flight number and apogee, and each shake gives one readout. See after landing.
- **Blinking the apogee after landing.** With `maintain_power` set to 1, 2 or 3, the Nano blinks only the apogee after the save, until you switch it off or for 4 or 10 minutes.

How to read it

Each readout starts with a lead-in: ten quick blinks that speed up and then slow down, a one-second hold, and a short dark gap. The lead-in colour tells you what follows:

- **Red lead-in:** the flight number.
- **White lead-in:** the apogee, in metres to one decimal place.

Then each digit is blinked in turn, largest place first, in that place's colour:

- The number of blinks is the digit, from 1 to 9. Each blink is half a second on and half a second off.
- A zero is one long, steady hold of 2.5 seconds.
- There are 2 seconds of dark between one digit and the next.
- Leading zeros are skipped, but the units are always shown, and the tenths for the apogee.

Colour	Digit place
Red	10,000s
Purple	1,000s
Green	100s
Cyan	10s
Yellow	1s (units)
Blue	Tenths (altitude only)

The flight number uses the same colours from the thousands down: purple, green, cyan and yellow. After the apogee

there are 10 seconds of dark.

Examples

Flight 105



A red lead-in, then one green blink for the 1, a long cyan hold for the 0, and five yellow blinks for the 5.

Apogee 246.4 m



A white lead-in, 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.

Apogee 2,033.7 m



A white lead-in, then purple twice for the 2, a long green hold for the 0, cyan three times, yellow three times, and blue seven times for the .7.

GOOD TO KNOW

The readout is always for the most recent flight saved on the Nano. Flight 12 at 123.4 m takes about 41 seconds in all: about 11 for the flight number and 30 for the apogee. Earlier flights are on their flight info pages and the Altimeter Cloud.