

# SeaLabMOS LED Color/Blink Meanings and Troubleshooting Guide

(v4 2025.9.22)

On startup, the system will flash the onboard LED 5 times to denote the deviceMode

Device Mode	Meaning	Color
0	Fast sampling every loop	Bright Green, LED always on
1	1-minute mode	Orange
2	10-minute mode	Yellow
3	Charge mode (LED always on)	Purple
4	Bottom Pressure Recorder	Cyan
5	Pressure Only Profile	White
Other / Unknown	Unknown mode (will not sample)	Red

Immediately afterwards, it will show the battery voltage with the LED using the following scale  
If you see both colors (red and purple) it means the voltage is floating between the two

Battery Voltage (V)	Meaning	Color
$\geq 4.0$	Full	Green
3.8–3.6	Mostly full	Cyan
3.6–3.5	Medium	Yellow
3.5–3.35	Low	Purple
3.35–3.2	Critical (no blink)	Red
$< 3.2$	Dangerously low *FLASHES*	Red

**Continual red flashes can happen after the before two light patterns  
when the microSD card and/or sensor(s) is/are not detected**

If troubleshooting, it will output to serial via the USB-C at 115200 baud

You will know the SeaLabMOS system is ready to deploy once it has flashed the deviceMode and shown the battery voltage, then nothing further. If the sensor(s) initialize properly and the microSD card is detected and can be written to the LED is not utilized further to save power.

**For any questions or issues, please call/text/email Sophie Scopazzi**

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GitHub: <https://github.com/sscopazzi/SeaLabMOS>