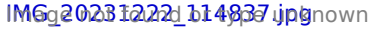
Switching on and initializing the TOPODRONE LiDAR

After correct installation on the drone or backpack, connection of external GNSS antenna and power cable, TOPODRONE LiDAR performs the power-up and initialization procedure. After the initialization a data recording starts on the internal storage of the TOPODRONE LiDAR or on the external memory card if it is installed. The priority of recording on the external memory card. For successful initialization it is necessary to ensure proper installation of the TOPODRONE LiDAR on the appropriate media, the presence of GNSS signal, as well as immobility of the device before the start of data recording.

After connecting the TOPODRONE LiDAR to the power supply, it will make a short beep and the LED will turn green. Then, the LED of the laser scanner will light up according to the indication table. If there is a stable GNSS signal and there are no errors, the laser scanner will switch the LED color to constant blue after some time. The succesful TOPODRONE LiDAR LED indication is shown on photos below.



After the initialization, the data is written to the internal memory of the TOPODRONE LIDAR. It is possible to stop data recording by the following events:

1. Power interruption, in which case the data will be successfully overwritten due to the internal power system.
2. Connecting external media to the USB Type-C port (only available when writing data to the internal memory).
3. Running out of free space on the storage medium (memory card or internal memory).

> The file system format of the TOPODRONE LiDAR MicroSD is exFAT.

> The first activation (cold start) of the laser scanner in an open area with a sufficient GNSS signal level (8 or more satellites) may take more time to pass the initialization procedure than subsequent activations. As a rule, at the first start of the TOPODRONE LiDAR it takes no more than 60 seconds until the start of data recording. In case of subsequent power-ups (warm start) the initialization procedure is faster (20-30 seconds). In case of starting to move along the route, initialization may not be performed correctly during the movement.

> It is necessary to check the LiDAR initialization status each time before launching the drone on an automatic mission or starting a walking route, as well as before finishing the work. In case the initialization status at the end of the route is not displayed by the constant LED, it means that the GNSS signal was lost during the route. In this case, the data received from the TOPODRONE LiDAR will be unsuitable for further post-processing.

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