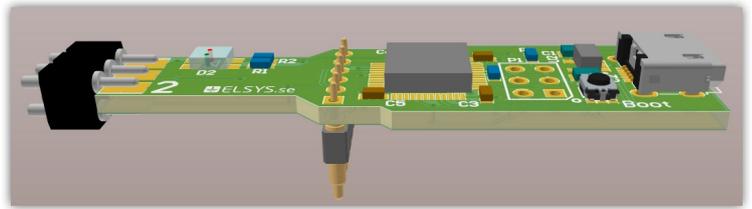


# ELSYS FIRMWARE UPGRADE TOOL

OPERATING MANUAL - Published 2023-03-01

## DESCRIPTION

A simple tool for upgrading the firmware of any ELSYS sensor.



*ELSYS firmware upgrade tool*

## REQUEST FIRMWARE

Request firmware by checking our [website](#). The firmware is supplied as .bin-files.

## PREPARATION

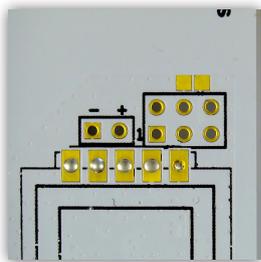
1. Connect the Upgrade Tool to the computer with a micro-B USB cable (one is provided with the Upgrade Tool). It appears as a USB drive. It should already have two files, one readme, and one JavaScript file. Do not remove these files; they should always be on the Upgrade Tool. If the JavaScript file is accidentally deleted, it can be downloaded [here](#).
2. Add the .bin file to the Upgrade Tool by dragging and dropping it into the file explorer on your computer.
3. Disconnect the programming stick from the computer before programming.

NOTE: You can only use the Upgrade Tool with one firmware at a time, so the Upgrade Tool should only contain one .bin-file. The preparation steps 1-3 must be repeated for every unique firmware/device type.

## PROGRAMMING

1. If the device to upgrade does not have a battery inserted, Connect the Upgrade Tool to a 5V USB port (computer/charger/power bank).
2. Hold the Upgrade Tool to the programming port on the device (see pictures below). The LED on Upgrade Tool may stop lighting due to the supercapacitor charging; keep holding the Upgrade Tool to the programming port if this happens.
3. Upgrade Tool starts programming once connected.
4. If the programming is successful, the sensor will perform a boot up, and the sensor LED will flash BLUE, RED, GREEN, and YELLOW.

NOTE: If you have problems with the programming procedure when the Upgrade Tool is connected to a computer, you can try connecting it to a different USB port or power source. The computer might not provide sufficient current to the Upgrade Tool or may cause problems by trying to communicate with the EKP during programming.



*ERS programming port*



*EMS programming port*



*ELT programming port*

## EKP LED BEHAVIOR

Successful programming sequence:

LED Flashing Green:	Waiting for the device
LED Flashing Yellow & Red:	Programming
LED Green Red:	Finishing
LED Flashing Green:	Finished

Errors:

LED flashing orange:	FAT error
LED flashing red:	Internal error
LED fixed red:	Error or startup

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