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Using this manual

Hovermap is a powerful system that can be used as a Lidar mapping payload but also as an advanced autopilot for drones. It is therefore recommended to read the user manual thoroughly to make use of all its capabilities in a safe and productive way.

Disclaimer and safety guidelines

This product is not a toy and must not be used by any person under the age of 18. It must be operated with caution, common sense, and in accordance with the instructions in the user manual. Failure to operate it in a safe and responsible manner could result in product loss or injury.

By using this product, you hereby agree that you are solely responsible for your own conduct while using it, and for any consequences thereof. You also agree to use this product only for purposes that are in accordance with all applicable laws, rules and regulations.

The use of Remotely Piloted Aircraft Systems (RPAS) may result in serious injury, death, or property damage if operated without proper training and due care. Before using an RPAS, you must ensure that you are suitably qualified, have received all necessary training, and read all relevant instructions, including the user manual. When using an RPAS, you must adopt safe practices and procedures at all times.

Warnings

- This document is legally privileged, confidential under applicable law and is intended only for the use of the individual or entity to whom it is addressed. If you have received this transmission in error, you are hereby notified that any use, dissemination, distribution or reproduction is strictly prohibited. If you are not the intended recipient, please notify the sender and delete the message from your system.
- Always be aware of moving objects that may cause serious injury, such as spinning propellers or other components. *Never* approach a drone while the propellers are spinning or attempt to catch an airborne drone.



Class 1 Laser Product (21 CFR 1040.10 and 1040.11)

WARNING HAZARDOUS MOVING PARTS KEEP FINGERS AND OTHER BODY PARTS AWAY



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This guide provides step-by-step instructions on how to safely downgrade Emesent Cortex, ensuring that you can maintain optimal performance and reliability. Before proceeding, it is essential to understand the limits of your downgrade options to avoid potential issues.

1. Pre-Requisites

1	Hovermap ST / ST-X	Emesent Cortex 3.1 and later versions
2	Hovermap 100	Not supported

2. Downgrade Limits

If you are using Cortex 3.1, you can downgrade to any version starting from *Cortex 2.7.23 or higher*.



3. Instructions

- Prepare a USB drive with the preferred Cortex version you wish to downgrade to (e.g. hvm_st_2.7.23.img). Ensure there are no other Cortex image files on the USB drive as these may be selected instead.
- 2. Connect to the Hovermap's Wi-Fi network and navigate to hover.map in a web browser.

9-			Hovermap
	START MAPPING MISSIC	N	
			No Scans
IMU Valid? ©	LiDAR Valid?	USB Mounted?	

3. Expand the **DEVICE** section then click **UPGRADE FIRMWARE**.





- 4. Insert the USB Drive into the Hovermap ST / ST-X backpanel and wait for scans to be copied across and the LED's to enter a "Breathing Blue" state.
 - Any scans not transferred will be copied onto the inserted USB drive and moved to the **TRANSFERRED** tab.
 You must wait until Hovermap ST / ST-X LEDs enters a "Breathing Blue" state before proceeding.
- 5. Enable **Allow Supported Downgrades**. Then, read and acknowledge the warning and click **YES**. There should be no BSP Upgrade Image file found.





6. Click **NEXT** to search for a Hovermap Upgrade Image file.



 If successful, the search process should find a Hovermap Upgrade Image. Check the Hovermap Version and Upgrade Version numbers to ensure they match the expected downgrade path. When ready, click NEXT to proceed with the downgrade.

Searching for update packages	
Hovermap Version: 3.1.0	
Allow Supported Downgrades	







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