

ROVR LightCone User Manual

Version: 1.0

Last Updated: April 2025

1. Product Overview

Welcome to **ROVR LightCone** — a Web3-enabled, vehicle-mounted high-precision 3D data acquisition device, purpose-built for large-scale HD mapping and environmental data collection. Equipped with automotive-grade sensors and a powerful onboard AI processing unit, the LightCone integrates seamlessly with the ROVR platform. Users can effortlessly collect data while driving and earn

ROVR Docs



2. Package Contents

1. ROVR LightCone main unit with mounting bracket x1
2. Magnetic base x1
3. Power cable x1
4. Data cable with adapter x1
5. Safety tethers x2
6. Dual-port cigarette lighter adapter x1
7. 24V to 12V converter x1
8. 1TB M.2 SSD x1

9. Anti-slip mat x1
10. ROVR LightCone Legal Notice Card x1
11. Quick Start Guide (digital) x1

3. Key Sensors and Components

4. Installation Guide

4.1 Device Installation

1. **Place the anti-slip mat** on the vehicle roof.



2. **Mount the magnetic base** on top of the anti-slip mat.

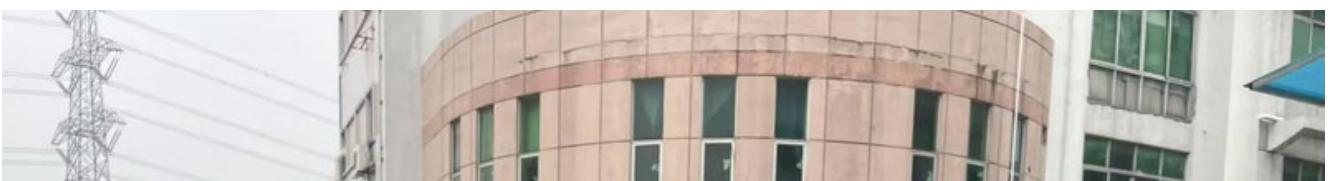




3. **Attach the LightCone unit** to the mounting bracket and secure it firmly, turn the knob on the bracket counterclockwise to unlock and clockwise to lock.



4. **Adjust the pitch angle** to ensure the device is horizontally level.





5. **Connect the cables** (power-black and data-blue).



6. **Attach the safety tethers** to prevent accidental detachment.



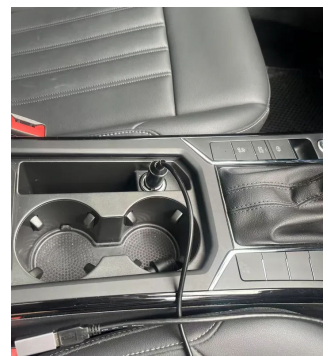
7. **Route the cables** into the vehicle through the door gap (doors will still close securely).

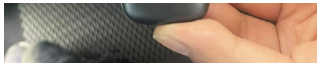




8. **Connect the power:**

- Plug the dual-port cigarette lighter adapter into the 12V vehicle socket.
- If your vehicle operates at 24V, first connect the 24V to 12V converter.
- Insert the LightCone's power cable (black) into the adapter's DP port to power on the device.





9. **Connect the SSD** into the designated port.



10. **Secure the safety tethers** and tighten them



11. **Verify power status** — the LED indicator should illuminate when powered correctly.

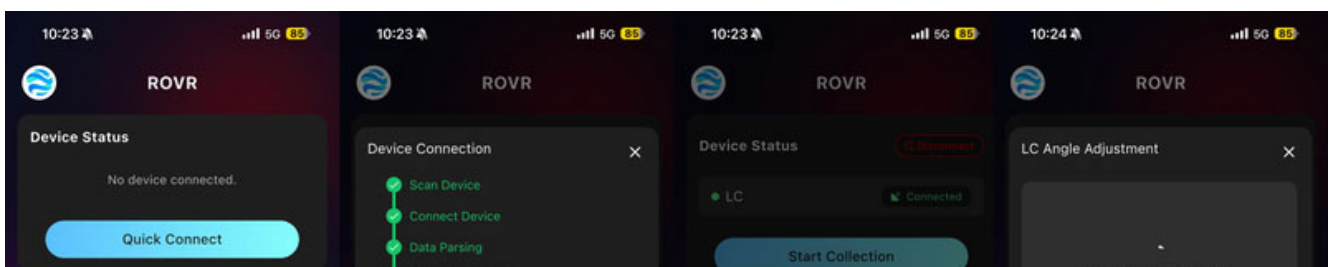


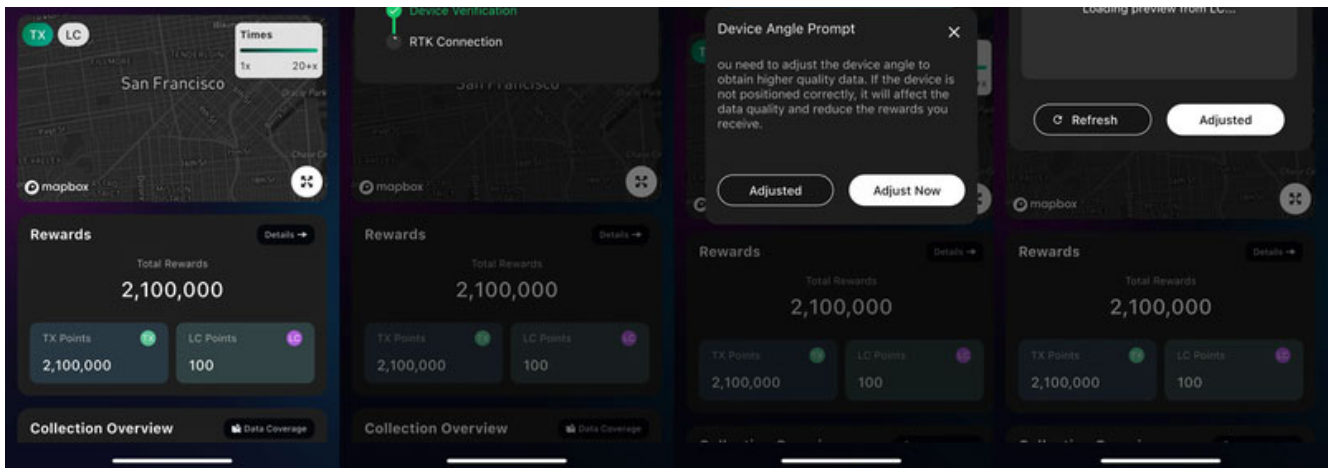
5. ROVR App Setup & Operation

1. Download and install the ROVR App:

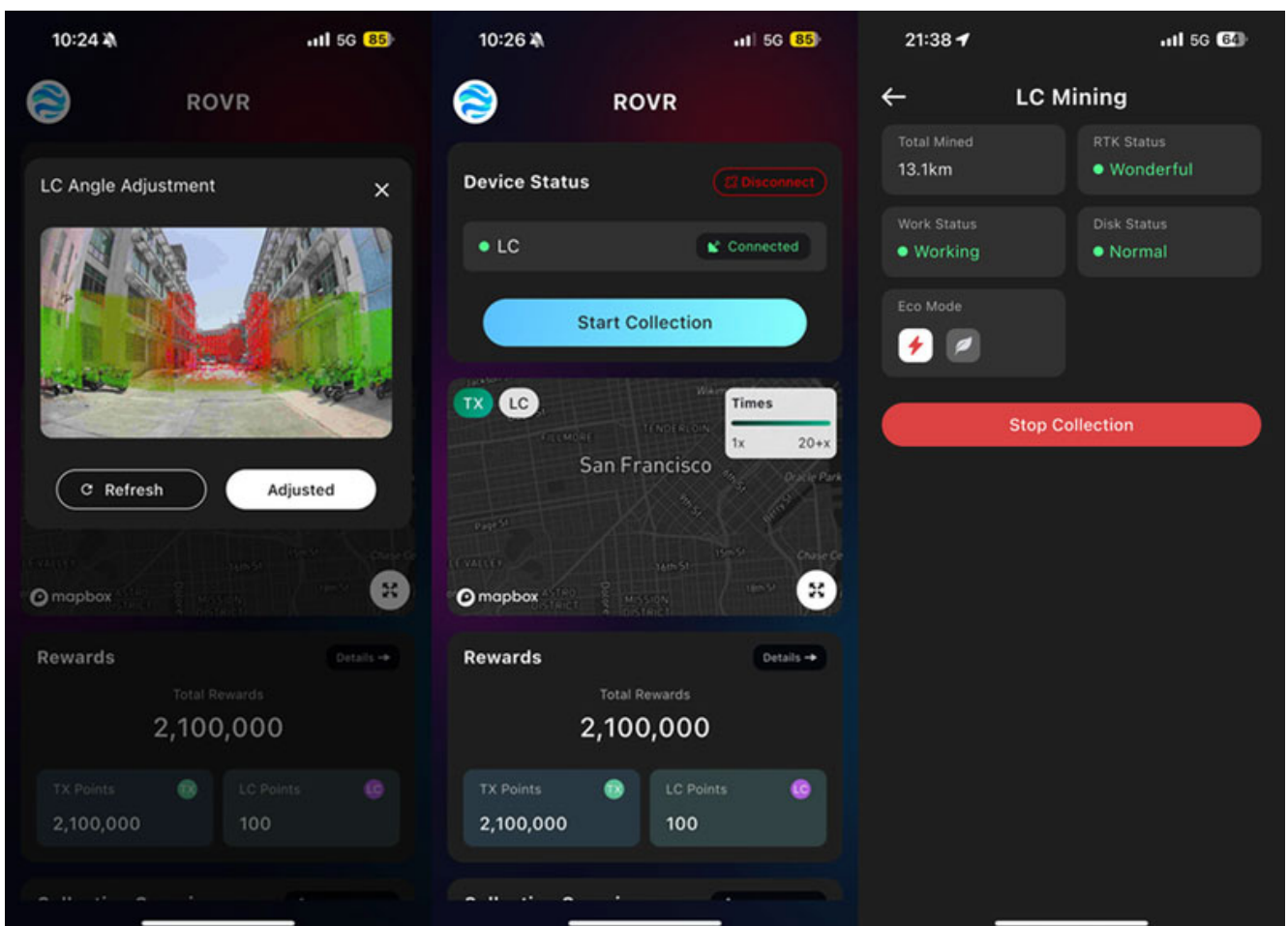
- For Android: <https://rovr labs.io/#/download> 
- For iOS: <https://apps.apple.com/jp/app/rovr-network/id6670725194?l=en-US> 

2. **Launch the app** and tap **Quick Connect** to pair with your LightCone device. On first-time setup, tap **Adjust Now** to obtain a live preview image (BLE transfer may take up to 1 minute — please be patient).





- Once the preview loads, ensure the field of view is unobstructed. If the image includes the vehicle hood or any obstruction, adjust the pitch angle using the mounting bracket and refresh the preview until clear. Close the preview by tapping the **X** in the top right corner, then tap **Start Collection** to begin data recording.



Important Notice

- \$ROVR token rewards are only issued when driving speeds are maintained between **10 km/h and 120 km/h**.
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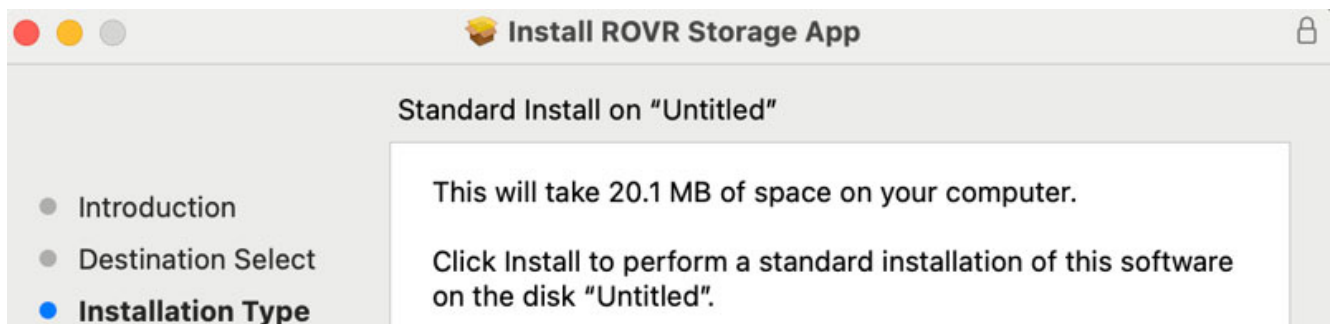
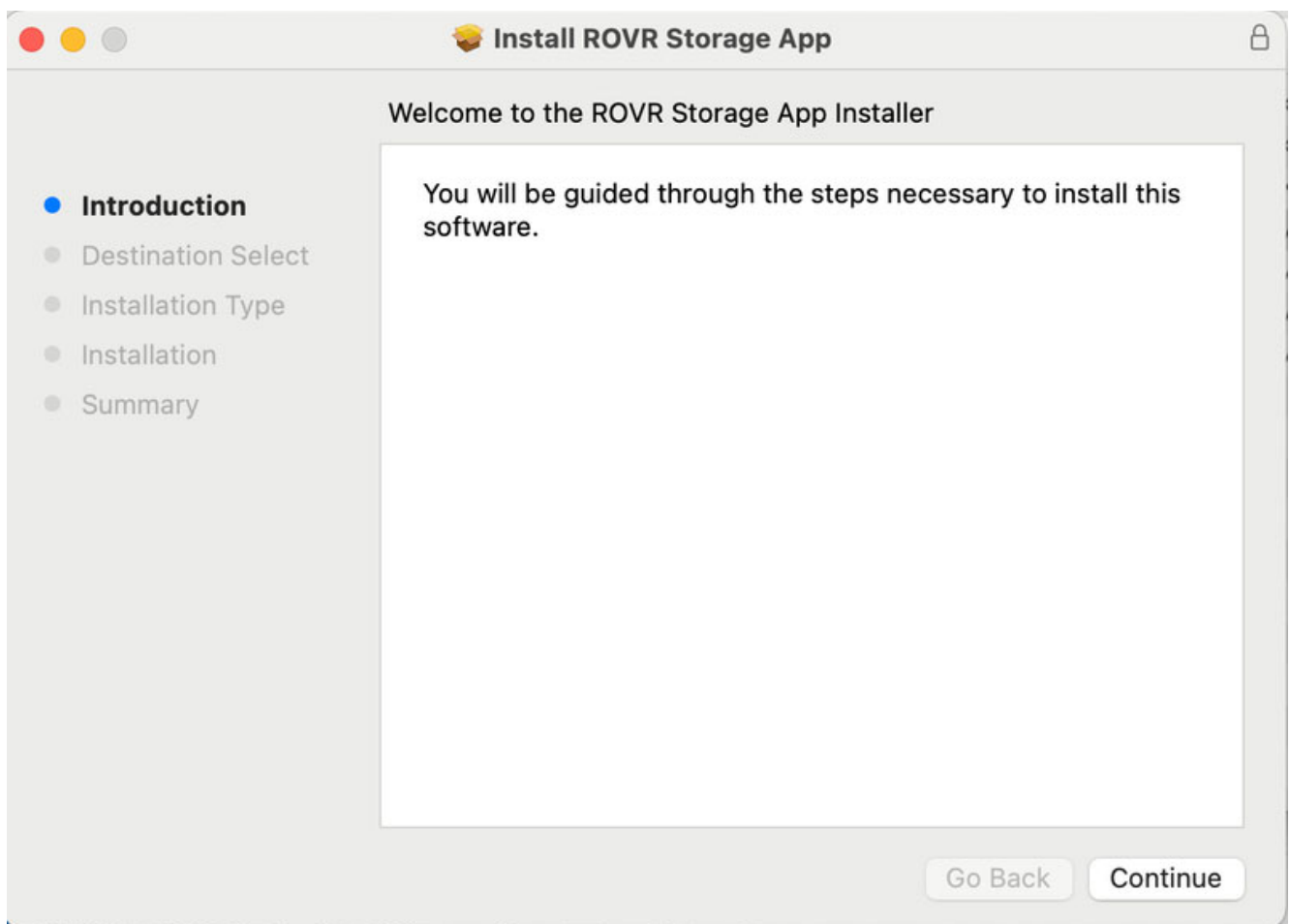
6. Data Upload

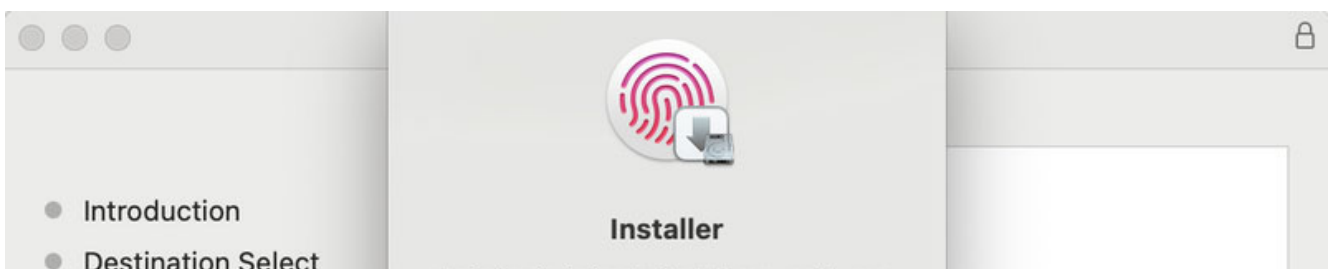
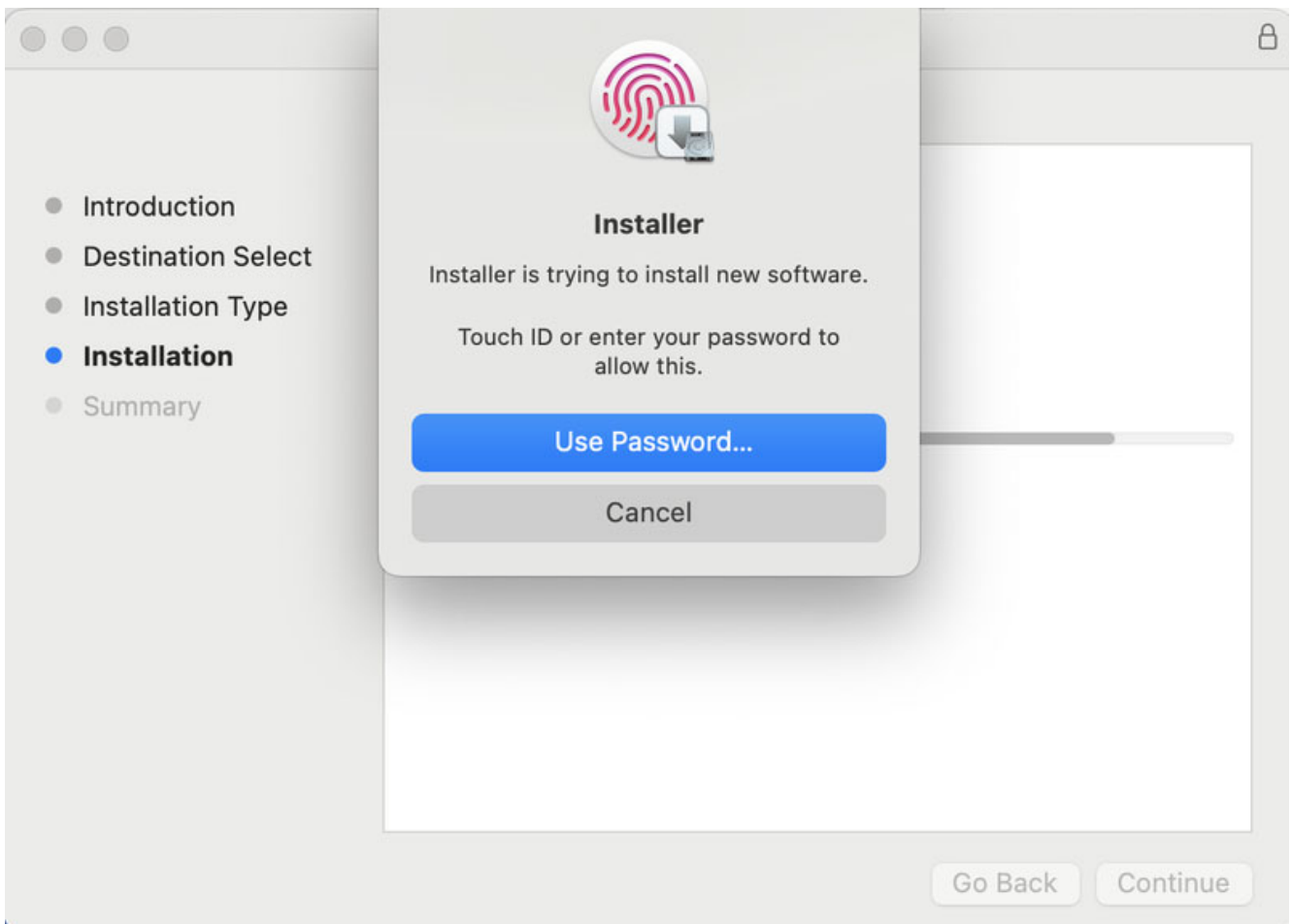
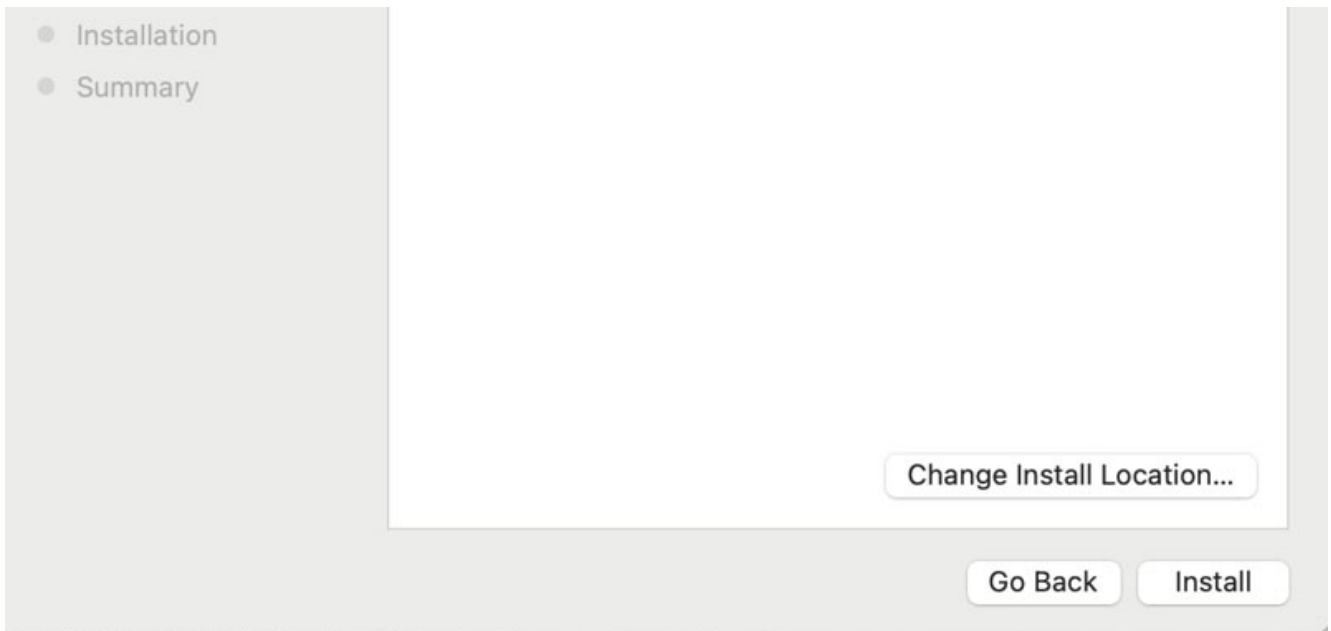
1. After completing a trip, remove the disk (**It's recommended to wait for about 30 seconds after parking before unplugging the power**) and take it home. Connect it to your computer

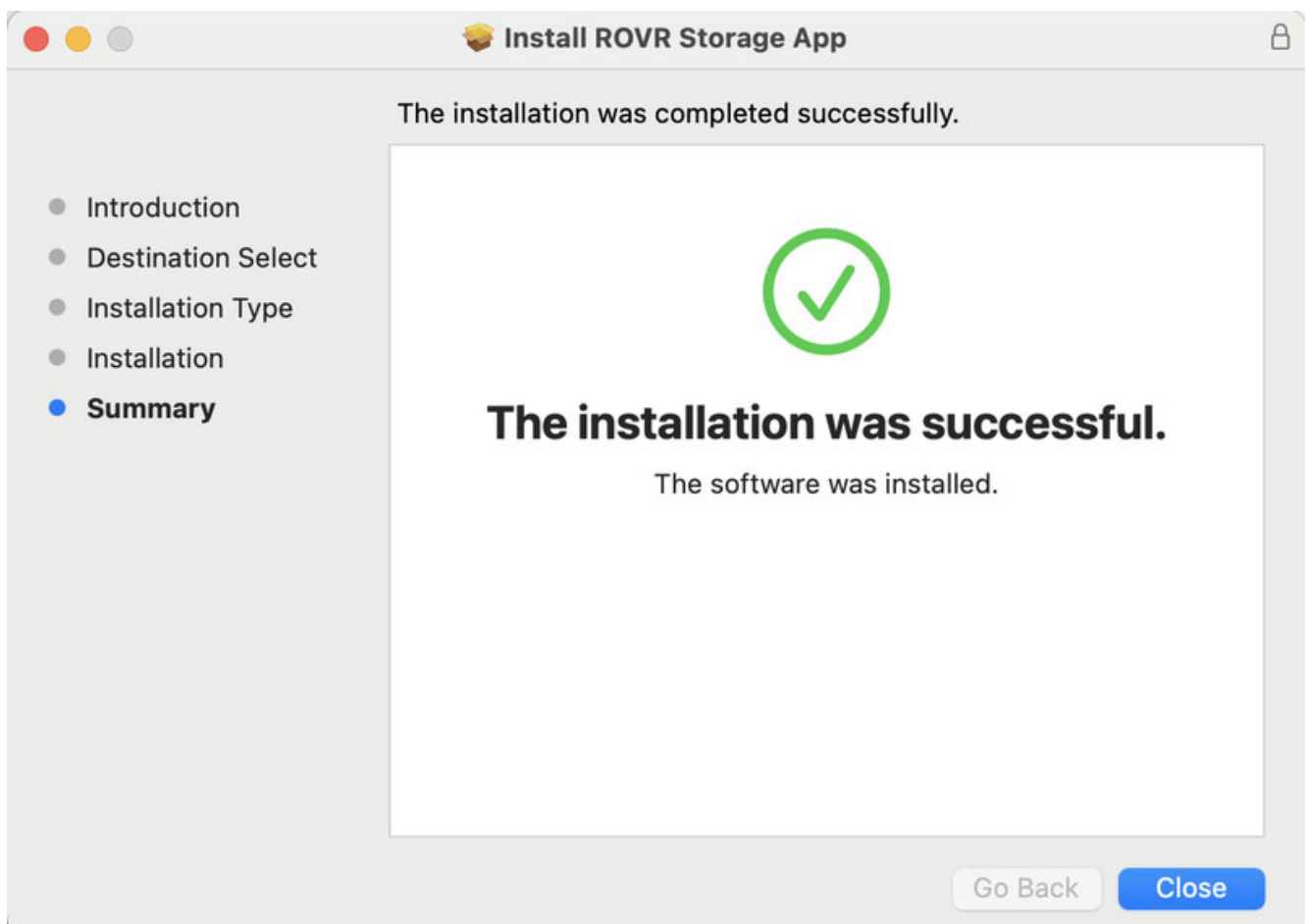
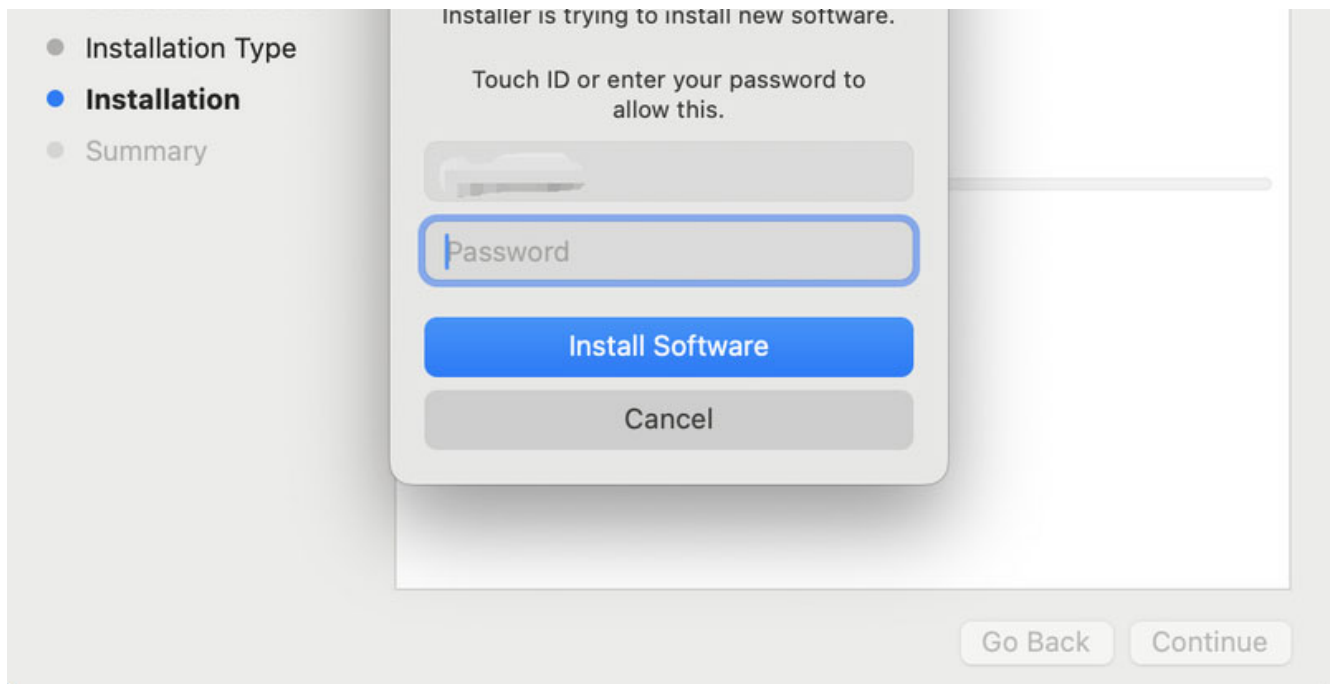




2. Download from the ROVR Official Community Discord or via <https://rovr.network/#/download>.
3. For Mac computers, please install as follows:

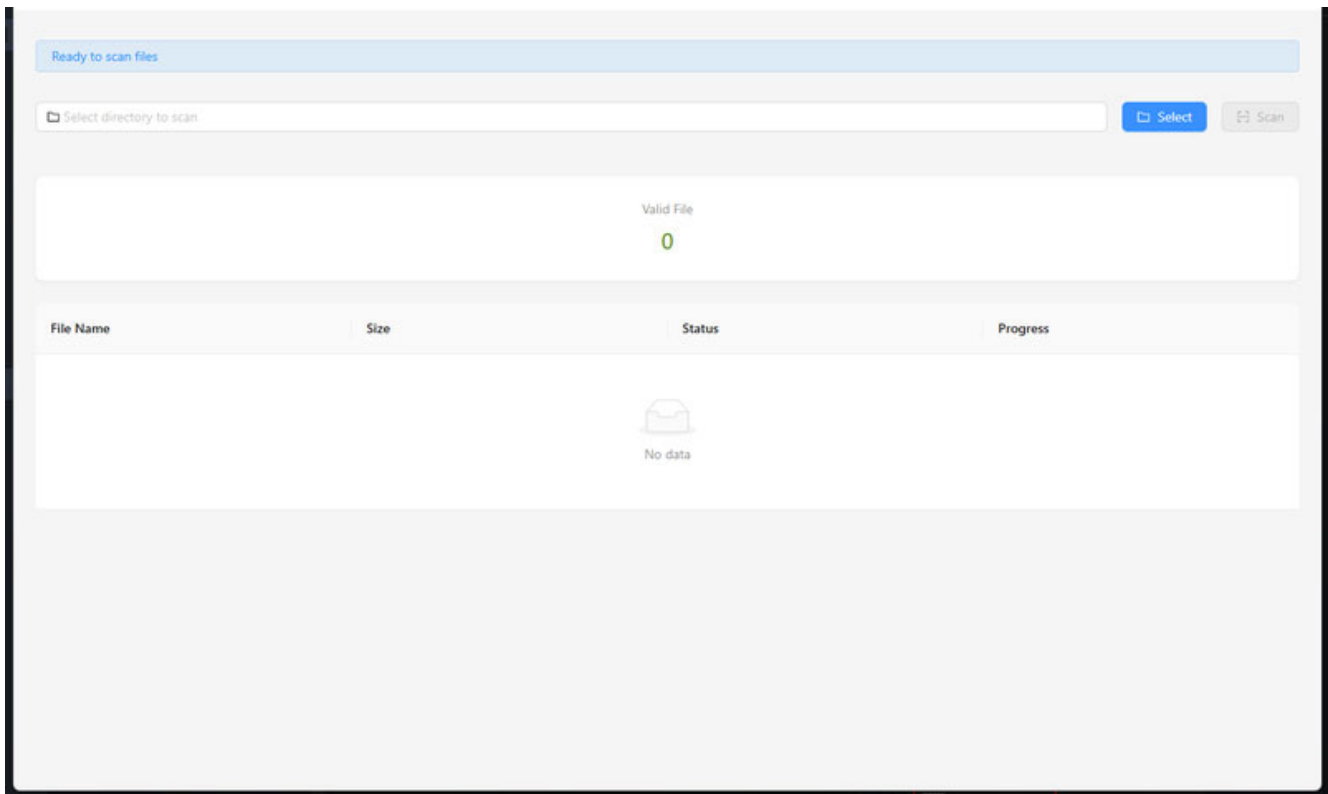






4. Log in using your ROVR Network username and password. Click "**Select**" and choose the root folder you want to upload (ROVR:).





4. Click "**Scan**" to scan the directory and its subdirectories, and then upload.
5. After the data upload is complete, please manually delete the corresponding data.

7. Maintenance & Care

- Regularly clean the LiDAR and camera lens surfaces using a **soft microfiber cloth**.
- Do **not** use alcohol, cleaning agents, or any **chemical solvents**.
- Avoid washing the device with **high-pressure water jets**.

8. Technical Specifications

Specification	Value
LiDAR Range (905nm)	200 meters (@10% reflectivity)
Resolution (Horizontal / Vertical)	0.1° / 0.2°

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Accuracy	<2 cm (1 σ)
AI Processing Power	8 TOPS
Camera	Automotive-grade HD Camera
IMU Drift (Gyroscope)	XY < 2.6°/hr, Z < 2.1°/hr
IMU Drift (Accelerometer)	< 45 μ g
Operating Temperature	-45°C to 85°C
Protection Rating	IP67 (Waterproof & Dustproof)

9. Technical Support & Contact

For technical support, please contact us:

 support@rovr.network 

 rovr labs.io 

Previous
ROVR TarantulaX User Manual

Last updated 1 day ago

FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.