SHINING 3D

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EinScan *Rigil*

Rapid • Refined • Reliable

The Tri-Mode Laser 3D Scanner

Wireless

Hybrid Light

Built-In Computing

Contents

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THE TRI-MODE LASER 3D SCANNER

Rapid, Refined, Reliable

EinScan Rigil is the world's first Tri-Mode 3D scanner with **built-in computing**, **wireless solution** and **hybrid light technology**. Rigil offers a fully integrated 3D scanning wireless workflow with **three working modes** that effectively eliminates the traditional compromise between computing power and flexibility. It provides high quality models with 0.04 + 0.06 mm/m volumetric accuracy and high geometric resolution up to 0.05mm. Its three types of light sources — 19+19 crossed blue laser lines, 7 parallel blue laser lines, and infrared VCSEL — which paired with two separate groups of tailored cameras to ensure versatile performance and peak efficiency for objects of wide-range of sizes and surface types.

EinScan Rigil Key Features

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● Hybrid light resources in your hand

2 Blue Laser Scan Modes:

19+19 crossed laser lines for quick scanning, delivering industry-leading efficiency and data quality.

7 parallel laser lines for HD scanning, providing consistent results with fine geometric details.

Above 2 laser modes can switch during scanning process, and respective data merged together, to achieve speed and detail in one scanning project.

IR Rapid Scan Mode:

Infrared VCSEL for marker-free scanning, adapting to rich tasks in diversified working environment.

● High Volumetric accuracy 0.04+0.06 mm/m;

● Geometric Resolution up to 0.05 mm

● Superior adaptability to scan objects with dark or reflective metal surface without spray

● Working efficiently in sunlight outdoors.

● Marker-Free Laser Scanning

● 5MP Full Color Texture Scanning

●All-In-One Powerful Hardware

1T SSD ROM; 32GB DDR5 RAM

Built-in 2* 6000mAh replacable batteries

6.4'' 2K AMOLED touchscreen

Aftermarket & Engineering

EinScan Rigil is designed to comprehensively address the 3D modeling needs of the automotive aftermarket for **prosumers** (professional, producer & consumer).

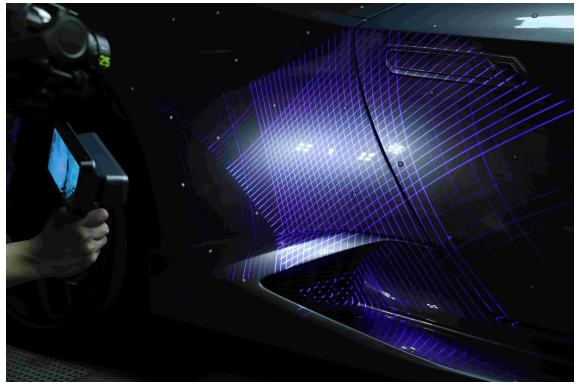
Rigil is the first truly universal 3D scanner engineered to meet the diverse demands of the automotive modification industry.

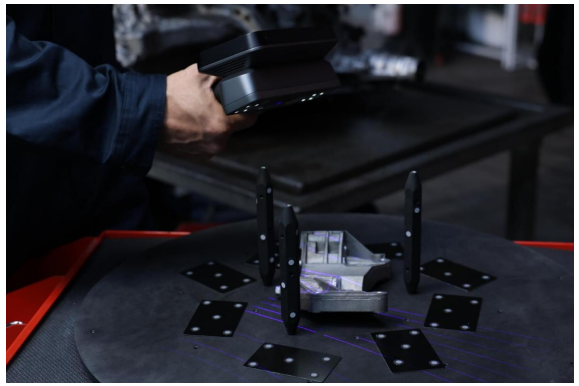
It significantly enhances efficiency in generating high-quality 3D models, combining fast scanning capabilities, streamlined professional workflows, lightweight computing solutions, and rich data editing functions.

The All-In-One design with Cable-Free, Size-Free experience and strong materials adaptability, makes Rigil capable of scanning anytime anywhere.

For users requiring faster speed or finer details, Rigil can also utilize PC Mode with Wireless or wired connection for advanced performance.

- **EV conversion**
- **Produce high performance parts**
- **Racing modification**
- **Retrofit components**
- **Convert vehicle**
- **Model existing components**






Application

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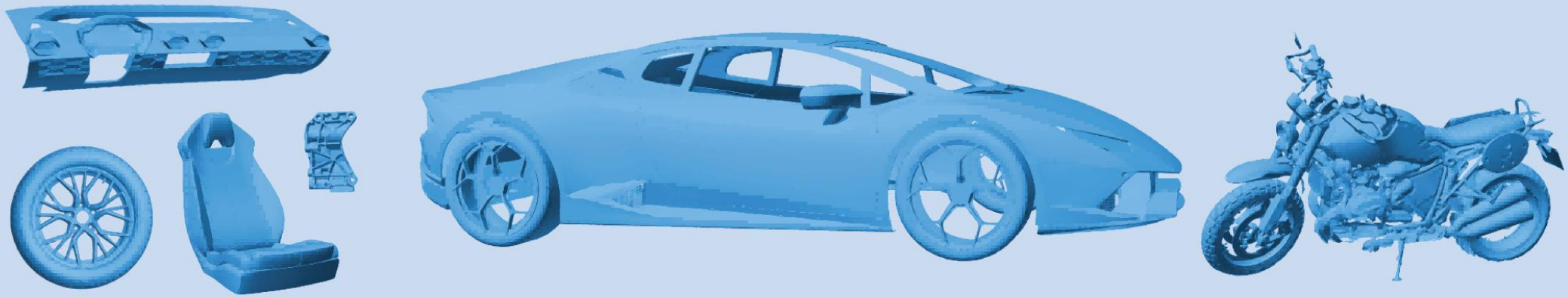
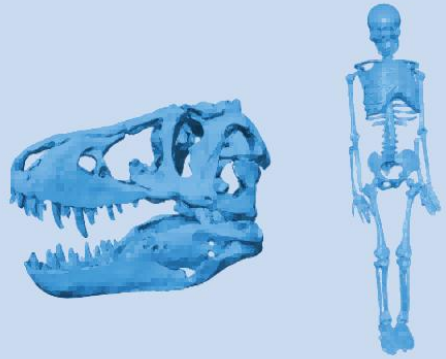
- Aftermarket & Engineering



- AR, VR & Digital Content

- Heritage Preservation & Art

- Education



Product Positioning Map

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EinScan HX2

+ IR light resource(wider range)

crossed laser lines 13 → **19**

+ 7 parallel laser lines
(for fine details and small objects)

Wireless Alternative

Better texture quality

+ Wireless flexibility

+ Standalone portability

EinScan Rigil

EinScan Rigil Hardware

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Size: 180 x 72.8 x 233 (mm)

Weight:870g(Battery included) /718g(Exclude Battery)

Why we adopt separate depth cameras for Laser and IR ?

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EinScan Rigil‘s 2 separate groups of cameras are specifically designed to capture different light resources respectively-- one for blue laser and one for infrared light, to ensure precise data captured even in complex lighting environments.

Unlike those entry-level 3D scanners using shared cameras across different light sources, Rigil’s separate pair of depth cameras are tuned for **cameras’ best adaptability to laser and IR light source** respectively; to achieve better data recognition under strong environmental light or intricate lighting conditions.

This setup also enables a unique markers-free laser scanning mode for objects with rich geometric features.

Working Modes

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Standalone -Wireless

1. Blue Laser Scanning Speed：
Up to 50FPS

2. Standalone,
Without PC & Cable-Free

3. Higher Flexibility
&
Streamlined Workflows
&
Lightweight Processing

With PC-Wireless/ Wired

1. Blue Laser Scanning Speed：
Up to 70FPS

2. Cable-Free(Wireless Connection);
PC- Boosted Computing Power

3. Better Details and Faster for
processing large volume data

4. Partial HD Scan
&
Multiple Projects Alignment
&
More Mesh Editing Function

Scan Mode

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1. Superior surface materials adaptability
2. Support Marker-free Scanning in Laser Mode
3. Support Outdoor Scanning
4. Fine details （7 parallel lines）
5. Support high resolution 0.05mm, Support 5MP Texture

Blue Laser（Small-Medium Range)
2.3MP Stereo Camera

Resolution：In PC up to 0.05/ Standalone 0.1-10mm
Laser Lines：38+7
Scanning Speed：up to 4,400,000points/s
Accuracy：0.04+0.06mm/m
Working Distance: 170 ~ 550 mm

Alignment Mode

- Marker
- Global Marker
- Features (Marker-Free Laser Scanning)
- Hybrid(Marker & Feature)

Scan Mode

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1. Large FOV & DOF
2. Support Marker-free Scanning
3. Support Outdoor Scanning
4. Eye-Safe Invisible Light
5. 0.2mm Resolution 5MP Texture

IR Rapid（Medium to Large）Stereo 1.3MP

Resolution：0.2 - 10 mm
IR Projector：VCSEL
Scanning Speed：up to 1,600,000 points/s
Accuracy：0.1+0.3mm/m
Working Distance: 160~1,500 mm

Alignment Mode

- Marker
- Global Marker
- Features
- Texture
- Hybrid (Marker & Feature / Feature & Texture)

Switch Laser Lines During Scanning

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For EinScan Rigil Only Strengths!

38 laser lines can provide a larger scanning coverage area and a dense array based on the high material adaptability of blue lasers, thereby enhancing the tracking smoothness and overall scanning speed, significantly improving work efficiency.

7 parallel laser lines can obtain better data quality and details.
On the contrary, this will require longer scanning time and only be practicle for small range.

2 laser scan modes can switch during scanning process, and data captured by each mode can be merged together, to achieve speed and detail in one scanning project

Materials Adaptability

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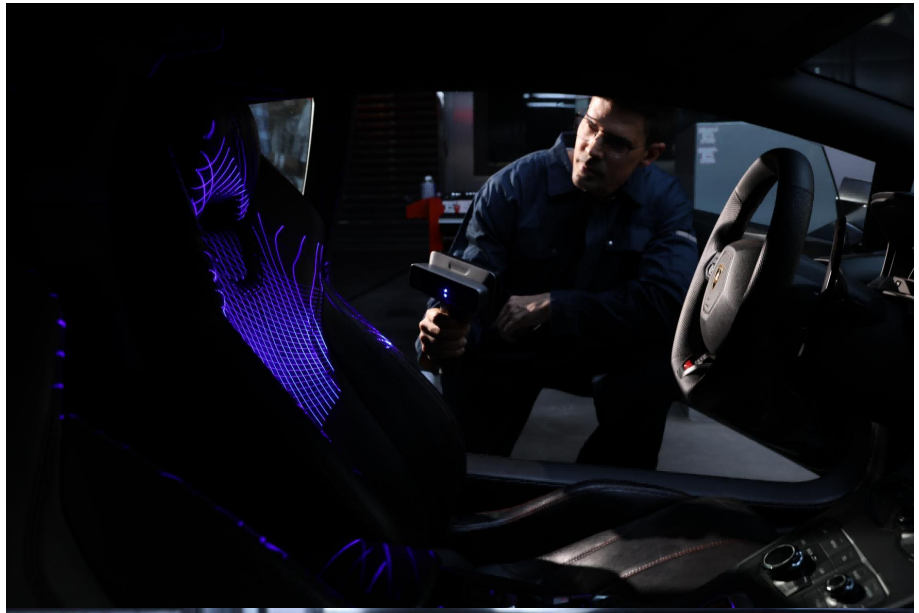
Superior adaptability to scan

objects with **dark** and **reflective**

metal surface **without spray**



Environment Light Adaptability

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Both **Blue Laser and Infrared VCSEL** projectors have strong environment light adaptability, which ensure smooth scanning experience under strong sunlight outdoors.

Data Quality

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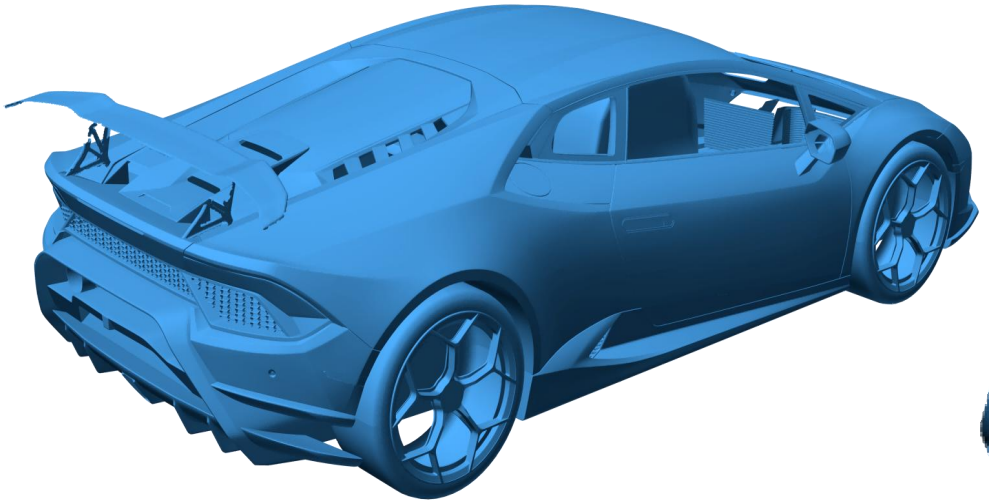
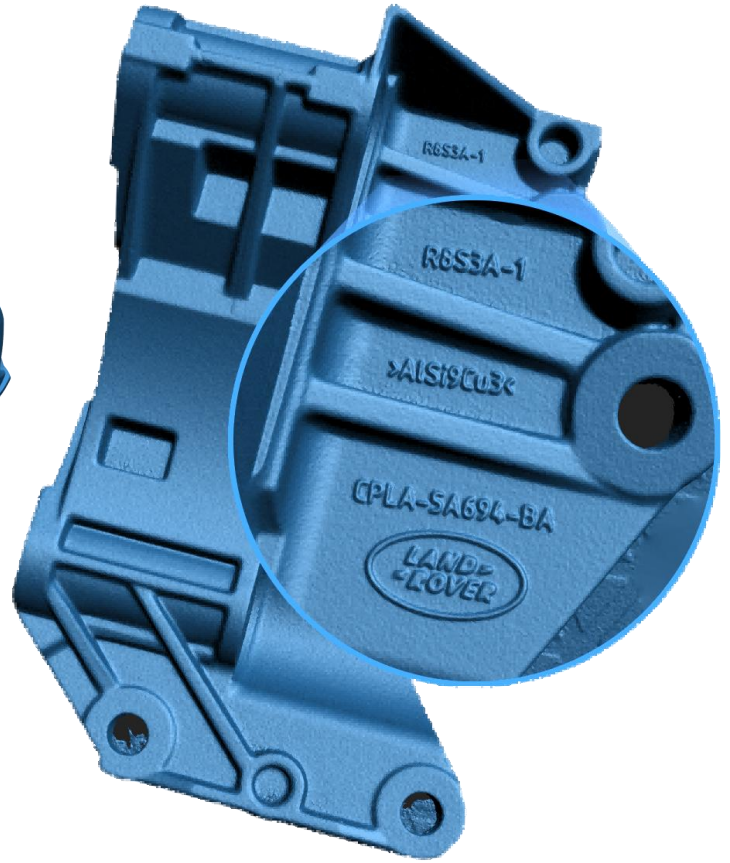
Volumetric Accuracy

0.04mm+0.06mm/m



Resolution

0.05mm



Texture

5MP

Full-Wireless Workflow

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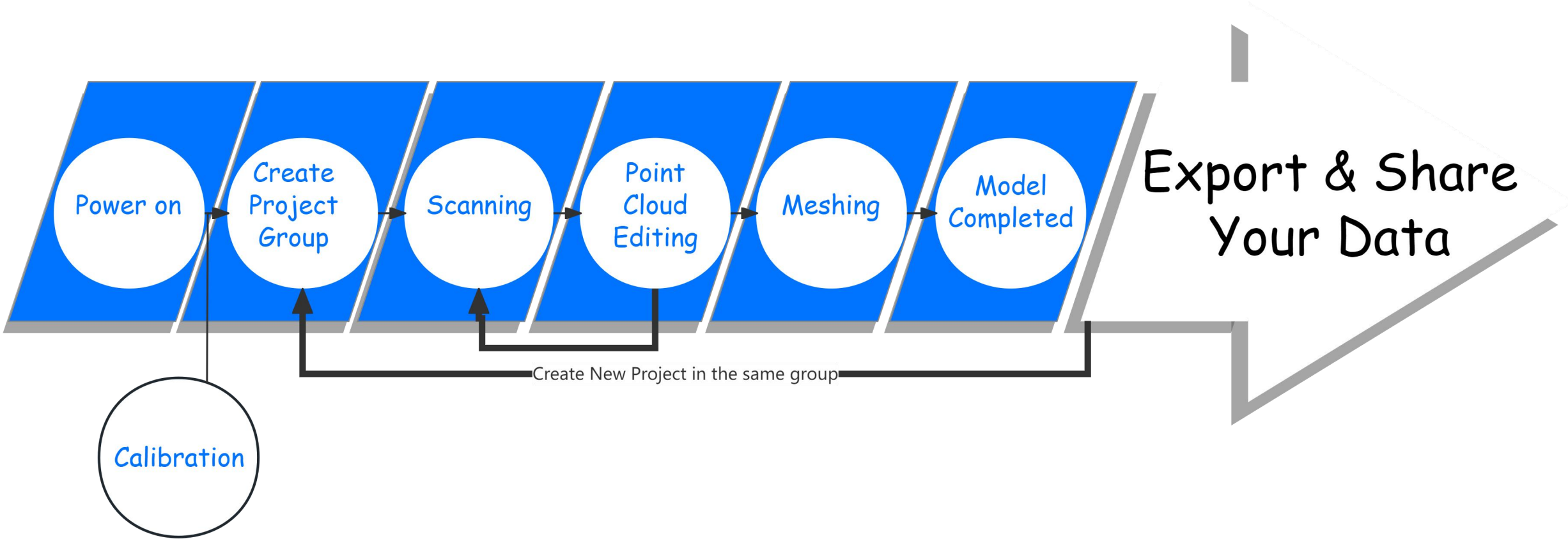
Professional Workflow, Fully Wireless & Third-Party Compatible



Ps: The Screen Casting feature seamlessly integrates into every stage of the workflow, enhancing team productivity through real-time collaboration.

Create Project Group

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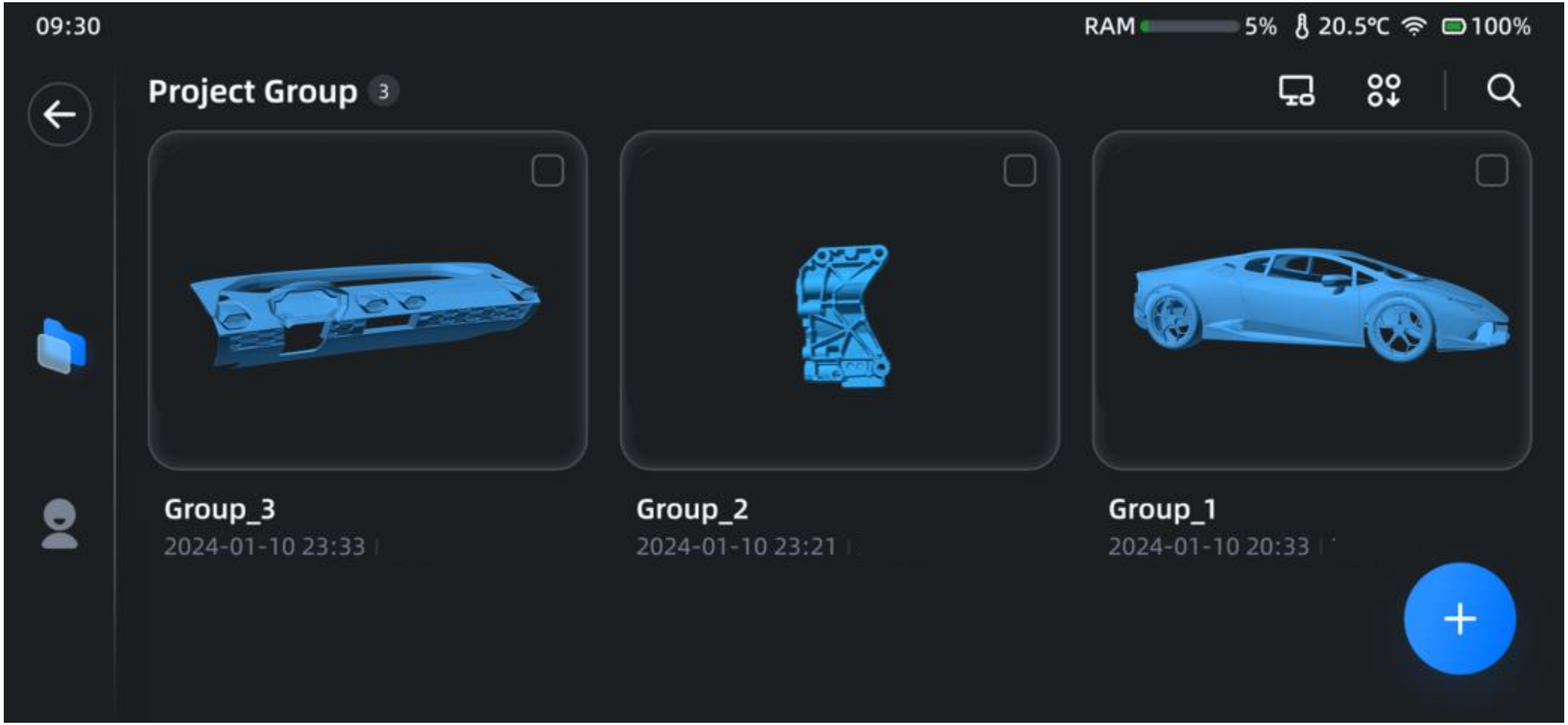

Preview & Scanning

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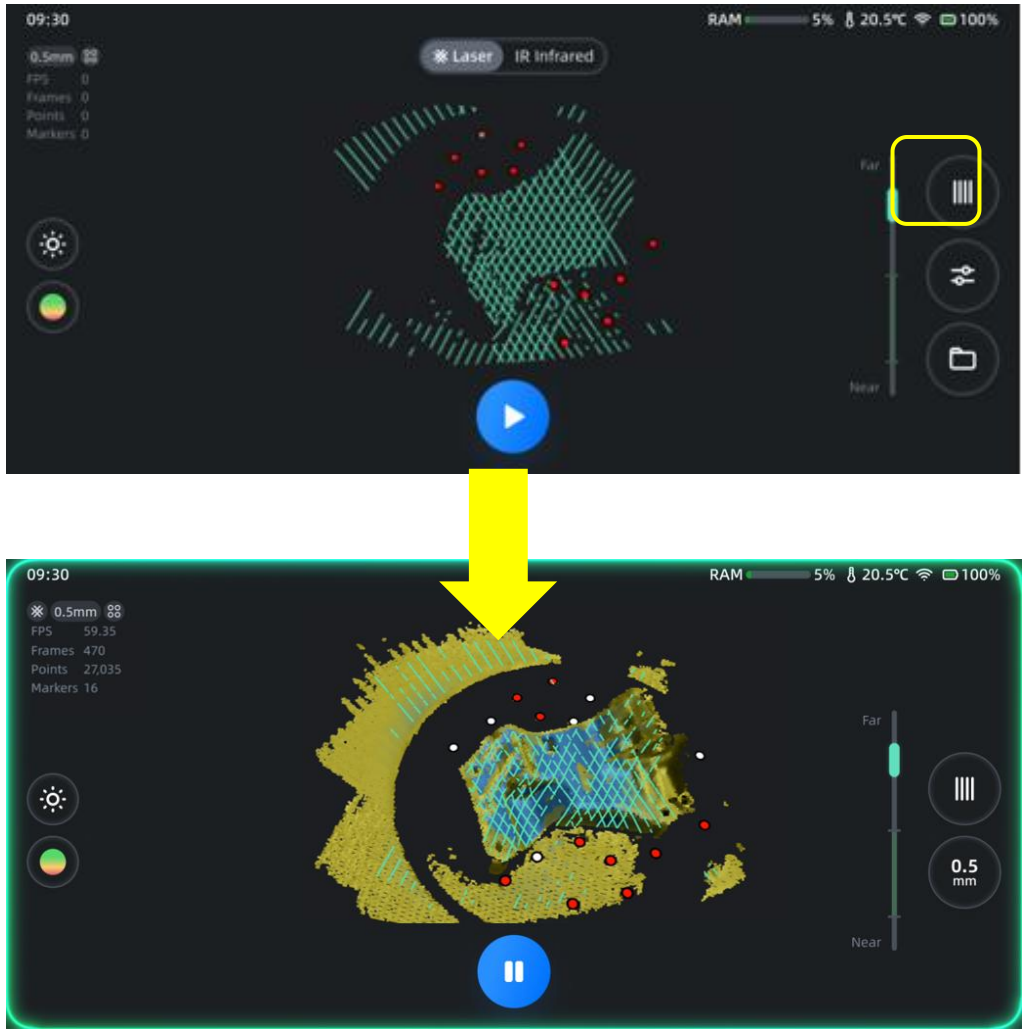
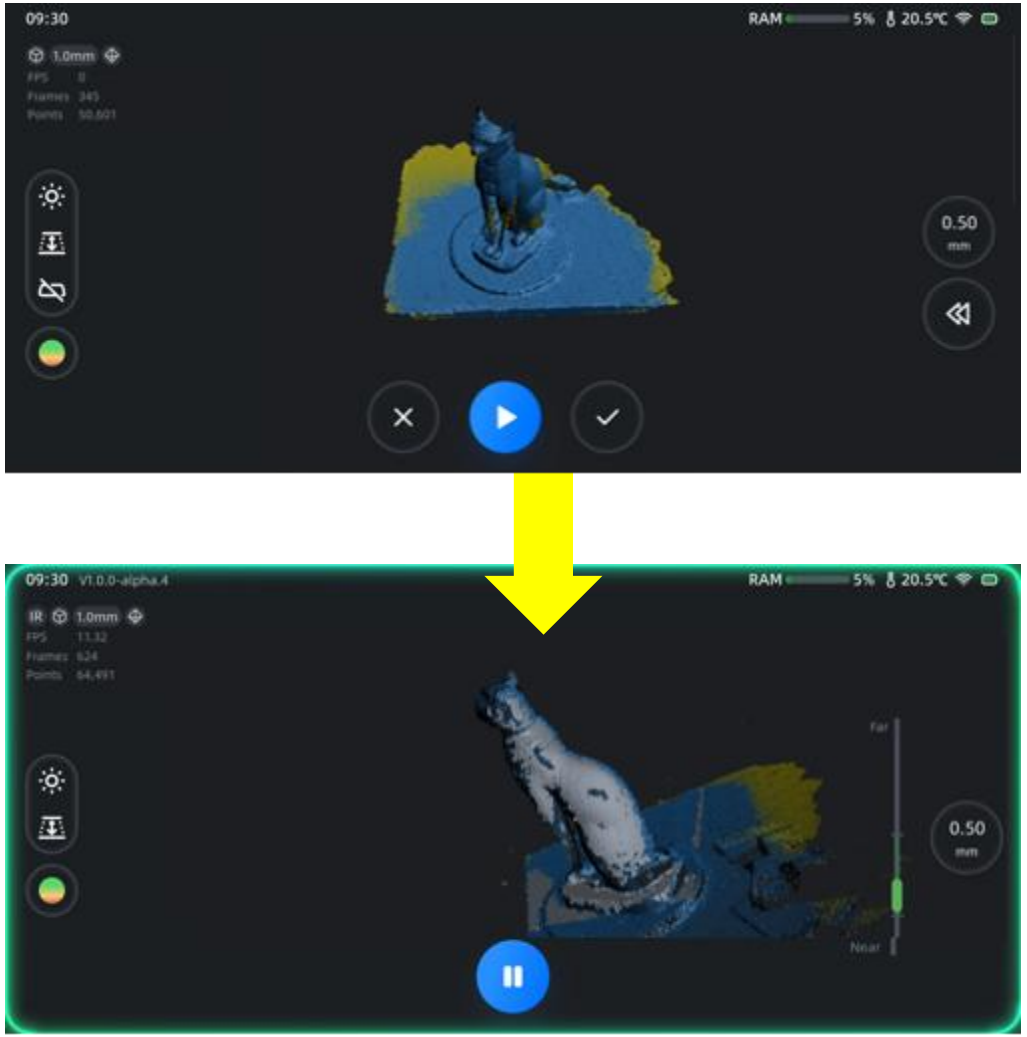
Laser Mode



Laser type switchable during scanning

IR Mode



Point Cloud Editing

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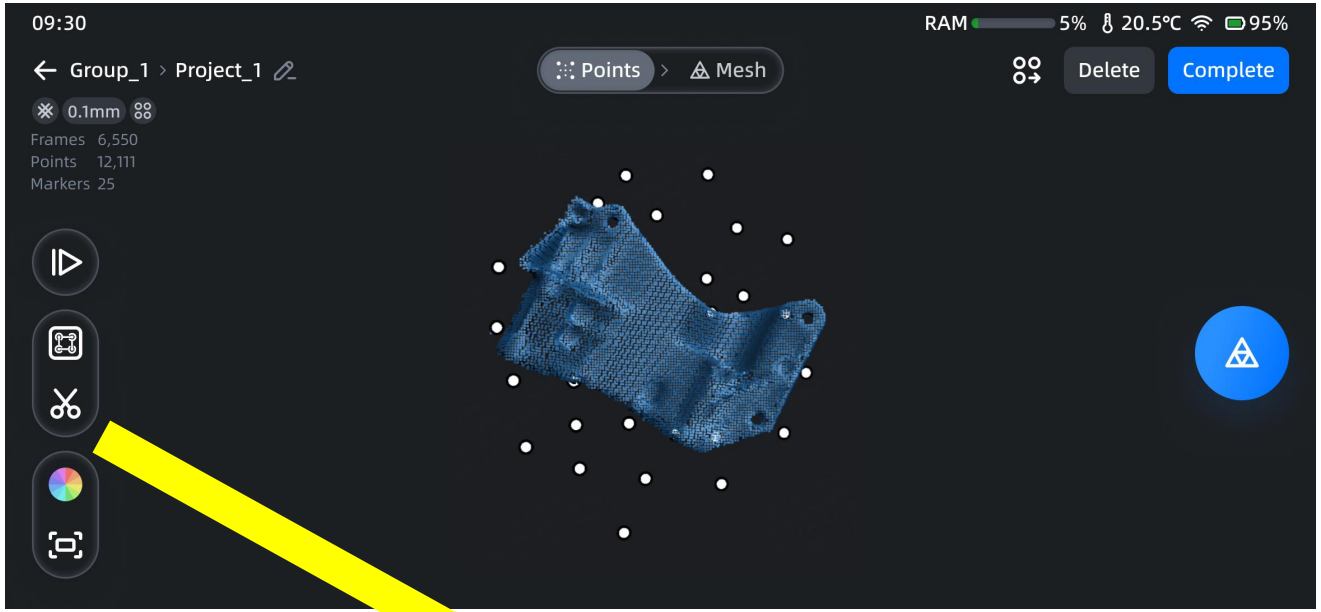
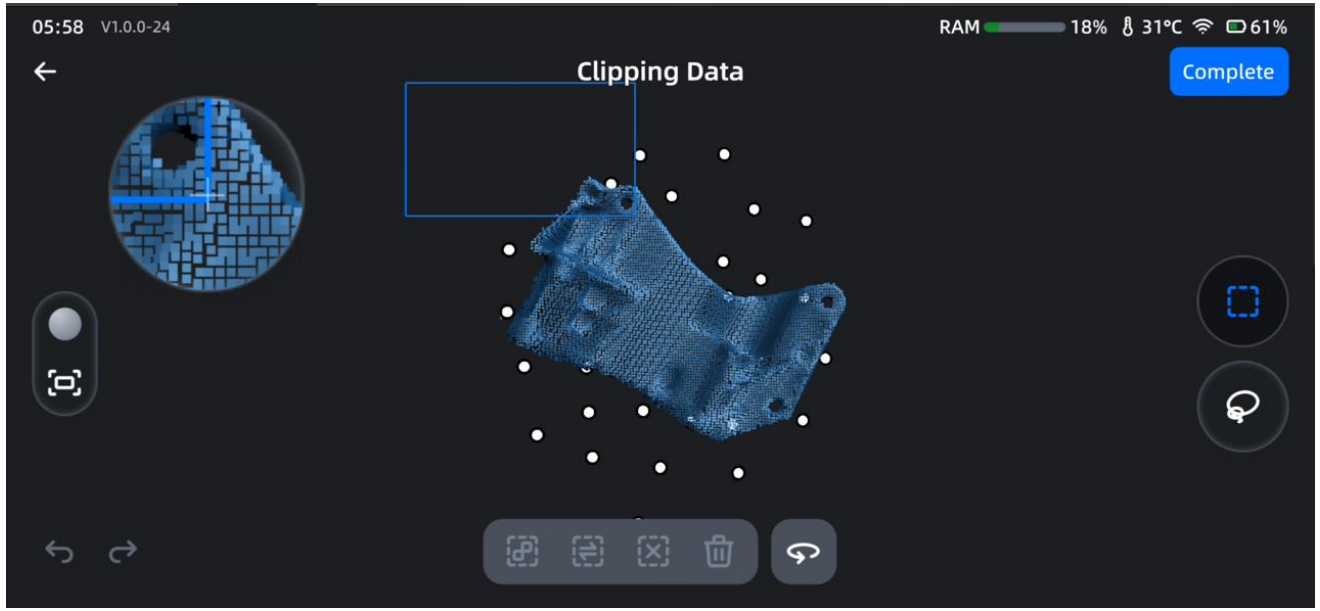


Mesh



Meshing

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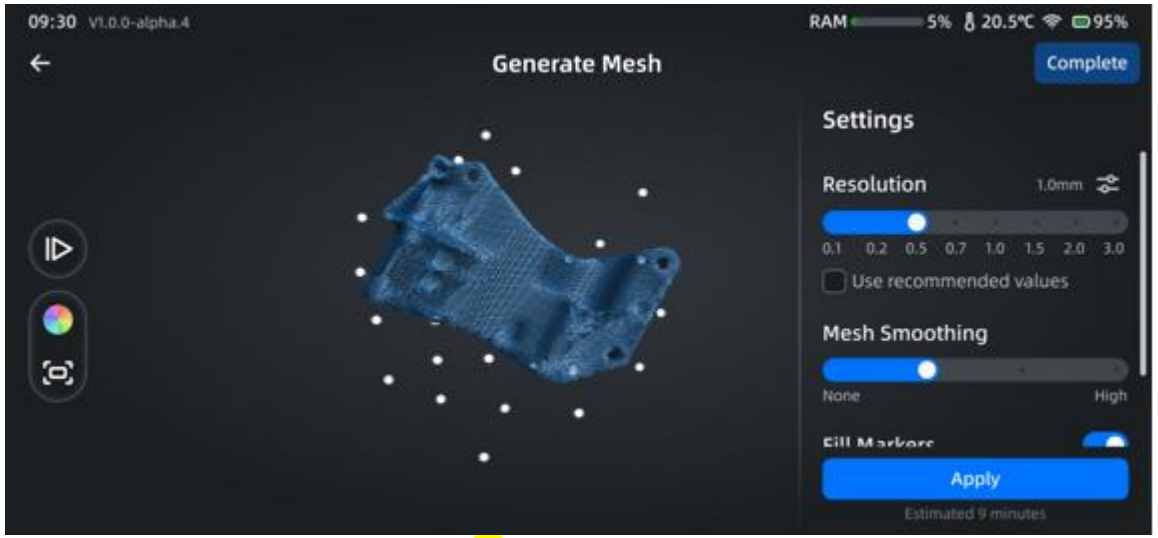

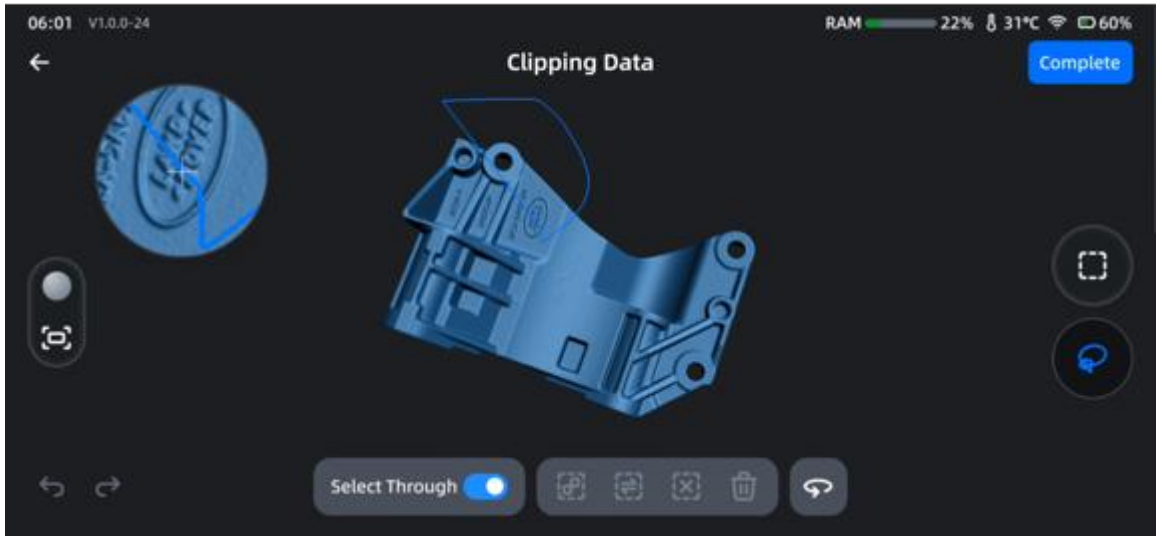

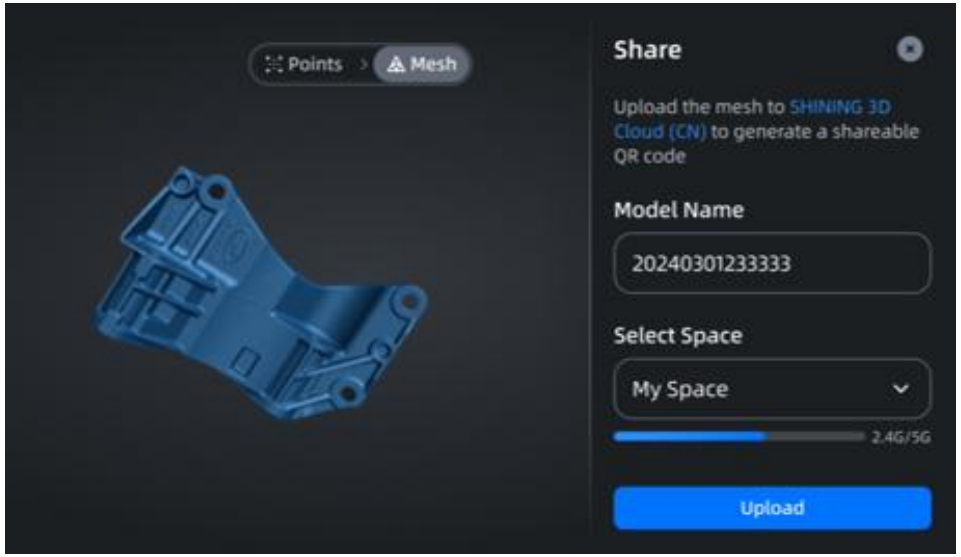

Hybrid Light Resource

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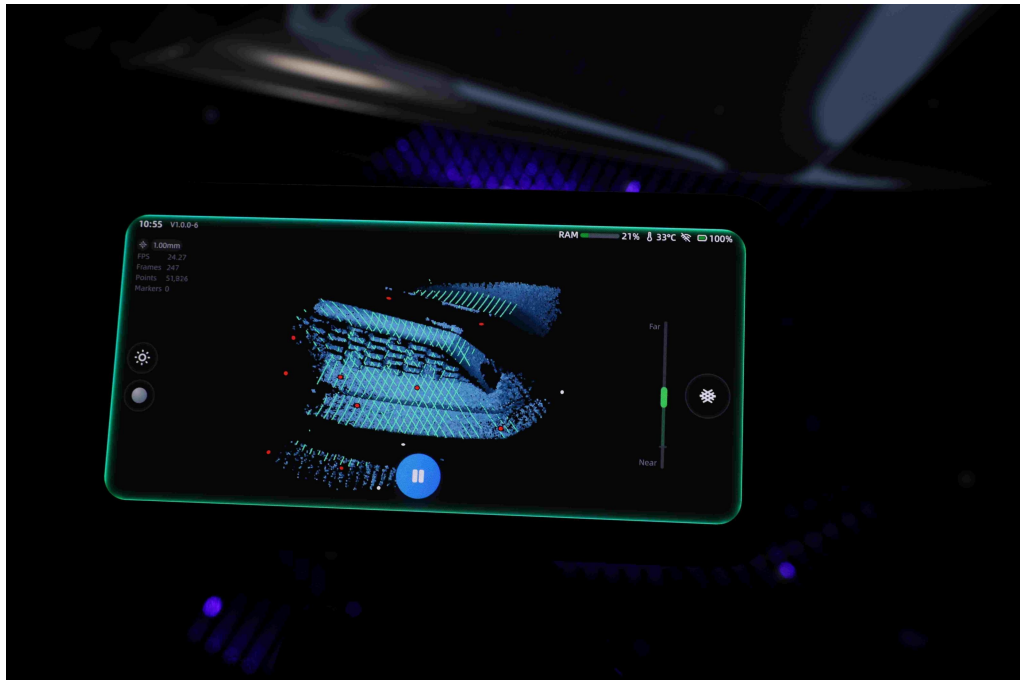
19+19 crossed laser lines

Deliveries industry-
leading efficiency and flexibility



Hybrid Light Resource

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7 parallel laser lines

Providing consistent results with fine details

Hybrid Light Resource

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IR Rapid Scan-Infrared VCSEL-powered

Solution for high-efficiency coverage of medium and large-scale objects
& Eye safe portrait scanning.