HeyGears

Reflex 2 Pro

Go Beyond Prototypes
Start Production

2.3X
Larger Build Volume

1032
OptiZone Light Engine

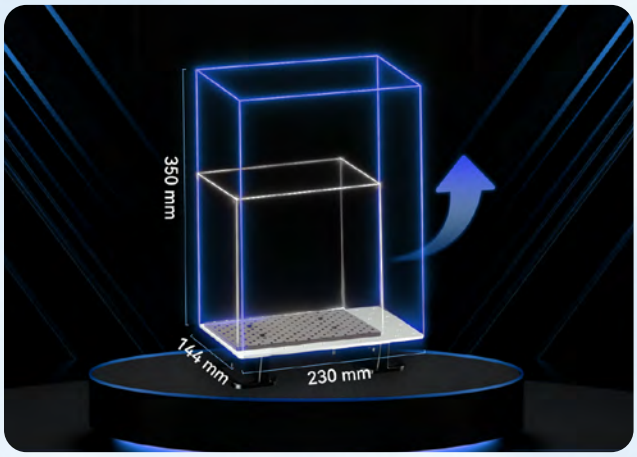
Upgraded
Amber Screen Pro

01

A Larger Build Volume for Seamless Production

◆ 2.3x* Larger Build Volume

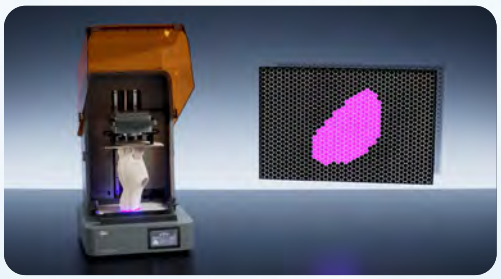
With a 35 cm Z-height, the Reflex 2 Pro can print full-sized orthopedic products and shoes in one go.

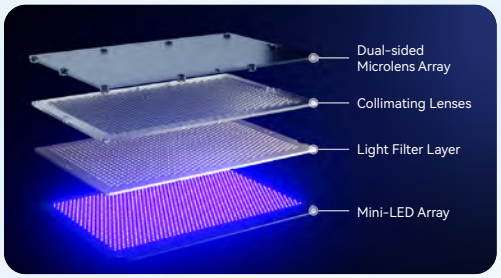


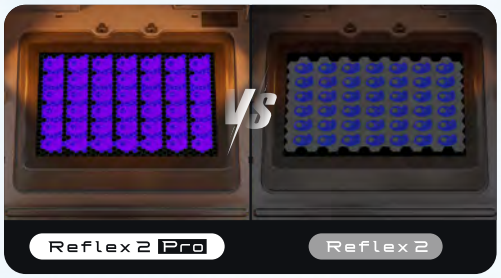
*Data sourced from HeyGears Lab. The build volume of the Reflex 2 Pro is 2.3 times that of the Reflex.

02

1032 OptiZone Light Engine, Pioneered by HeyGears







Precise Light Projection

With 1032 individually controlled light zones, the Reflex 2 Pro enables precise light projection within the printing area. This pinpoint accuracy ensures a flawless surface through optimal curing, while reducing resin residue to lower tank filtration frequency and improve production efficiency.

Customized Lens Stack

The OptiZone Light Engine features 1032 custom collimating lenses as well as a dual-sided microlens array consisting of 480,000 microlenses for highly collimated and uniformed light.

Optimized Multi-Part Nesting

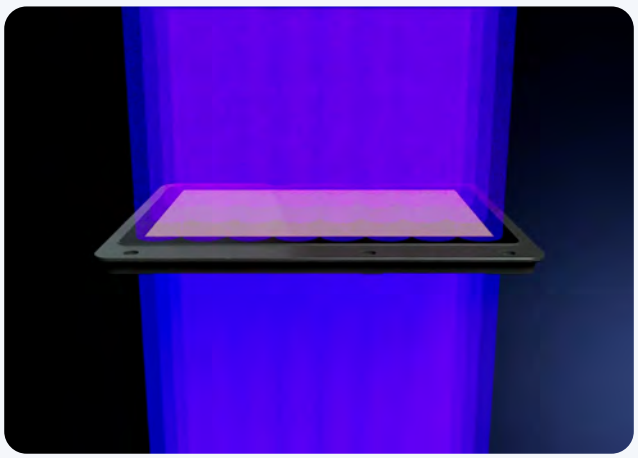
The OptiZone Light Engine, with its 1032 individually controlled LEDs, enables the projected light area to be closely matched to the exact contours of all nested parts. This minimizes unnecessary exposure in empty regions between models, while further optimizing the surface quality and the dimensional accuracy.

03

Upgraded Amber Screen Pro, Enhanced Batch-Production Reliability

◆ 2x Energy Transmission Rate*

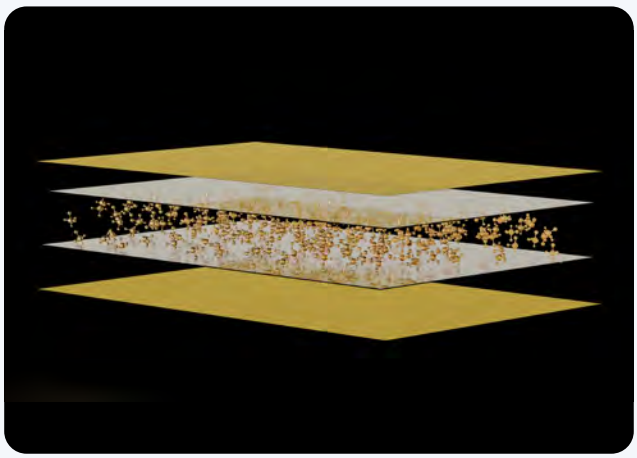
With its high 10% energy transmission rate, double that of conventional LCD printers, the Amber Screen Pro supports a light intensity of up to 35 W/m² for curing, which effectively reduces the exposure time for each layer and opens more possibilities of higher performance resins.



*Data sourced from HeyGears Lab, compared to conventional LCD screens with a 5% transmission rate.

◆ Upgraded UV Resistance for 6,000+ Hours Usage

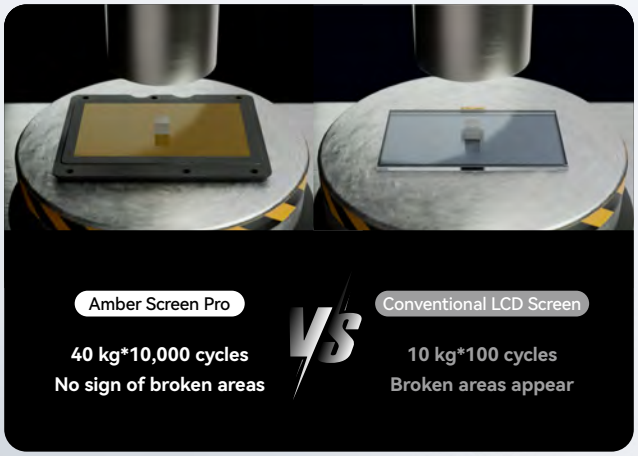
Featuring a large-molecule liquid crystal layer, the Amber Screen Pro demonstrates exceptional resistance to UV degradation, maintaining good performance even under prolonged high-intensity exposure, ensuring over 6,000 hours of printing*. This durability is backed by a 1-year warranty**.



*Data sourced from HeyGears Lab. The contrast and light transmission of the Amber Screen Pro remain within a 10% deviation after 6000 hours of printing.
**With 6,000 hours of printing, it can be used year-round based on an average of 16 hours of daily use.

◆ 100x More Pressure Resistant

Engineered with structurally reinforced support pillars in the liquid crystal layer, the Amber Screen Pro exhibits excellent pressure resistance—over 10,000 cycles with a 40 kg load causes no damage, effortlessly handling the continuous stress of high-viscosity resins.



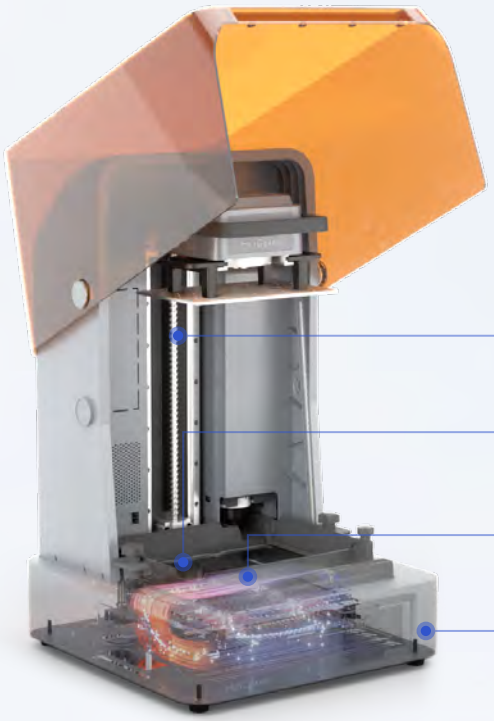
*Data sourced from HeyGears Lab. Testing was conducted using a 5x5 mm surface pressure test model.

◆ AI-Powered 86,000+ Zone Light Calibration

The upgraded visual calibration algorithm, MASK, uses 86,020 calibration zones to compensate for light intensity variations in each screen zone. This method achieves ≥94% light uniformity and print accuracy of ≤0.05 mm*.

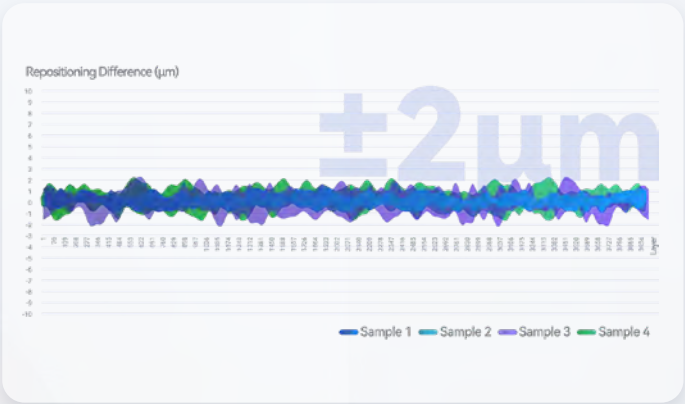
*Data from HeyGears Lab: Indicating the dimensional deviation for a printed test model measuring equal to or less than 20 mm in the XY direction. Test results are within the 95% confidence interval.

04 Built for Reliable 3D Printing



◆ Repeat Positioning Accuracy within ±2 μm under 80 kg Load

The C5-grade Z-axis module, combined with the FOC Motor Module, can accurately position under an 80 kg load, reducing layer thickness deviations and ensuring consistent 3D printing results.



◆ Enhanced Production Capability for Solid Parts

By breaking through the limitations of peeling force, solid models can also be arranged in an array to achieve stable batch production.

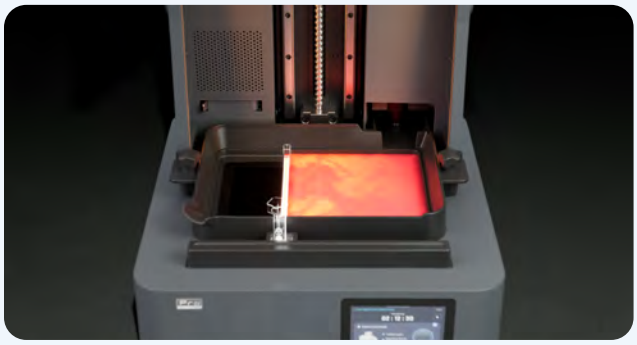
*Data sourced from HeyGears Lab, 99.9% of movement errors are within 2 μm.

05

Intelligent Features, Boosting Print Success

Intelligent Temperature Control

The in-scraper heater stirs and heats resin from 10 ℃ to 22 ℃ in just 6 minutes, reducing time by 68%*, while keeping it at the optimal printing temperature within ±1 ℃ throughout the entire printing process.



*Data sourced from HeyGears Lab, tested using UltraPrint-Production PAP10 resin.

Auto Resin Refill with Ultrasonic Detection

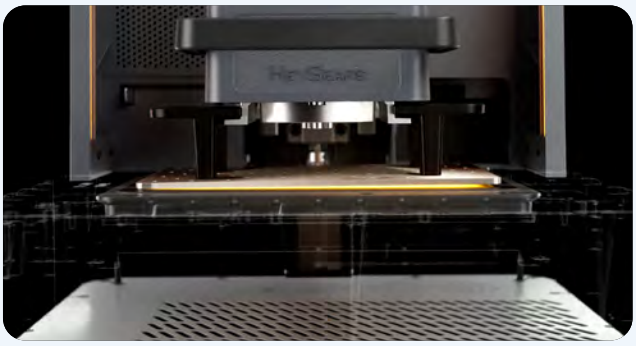
The high-precision ultrasonic sensor measures its distance to the liquid surface, dynamically calculating liquid level height within ±0.5 mm. This enables precise assessment of resin supply for printing, triggering automatic resin refill and reducing the need for manual intervention.

High-sensitivity Residue Detection

Force sensors with a sensitivity of 0.01 N can detect resin residue as small as 0.15 mm and can auto-stop upon detection or print failure.

Floating Build Platform Auto Leveling

A floating build platform system with a deviation of 0.15° eliminates gaps of up to 240 μm for automatic leveling.



06

Built for High – Performance Materials

PAE20

370% Elongation at Break
Excellent for Batch-production of Elastomers

PAT10

88.5% transmittance
High Transparency & High Toughness

PAH270

7240 MPa Flexural Modulus
High Stiffness & Excellent Thermal Resistance

07

Reflex 2 Pro Specifications

Product Name	UltraCraft Rapid Production System
Product Model	UltraCraft Reflex 2 Pro
Marketing Name	Reflex 2 Pro
3D Printing Technology	LCD (MSLA)
Build Volume	230*144*350 mm
XY Native Pixel	40 μm
Accuracy	±20 μm
Layer Thickness	20-250 μm
Optical Wavelength	385+ nm
Size	430*445*715 mm
Weight	29.7 kg
Rated Power	750 W
Voltage	100-240 V~50/60 Hz
Connectivity	USB, WIFI, LAN
Language	English, Simplified Chinese

HeyGears

HeyGears was founded in 2015 as an innovation-driven company, devoted to providing digital manufacturing solutions in various industries. The company bases its core competencies in 3D printing, software development, materials, and big-data handling. We have a global presence with teams across North America, Latin America, Europe, Middle East, and Asia Pacific.

HeyGears believes in a product development process rooted deeply into vertical applications, and our vision goes beyond just 3D printing technology. We strive to create vertically integrated solutions through the solid establishment of hardware, software, material, and service platforms, delivering our goal to bring advanced technology into daily life.

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www.heygears.com

sales@heygears.com

+1 (318) 353-4295（Global）/ + 1 (949) 418-9418（USA）/ +49 211 93598403（Europe）

USA: 17931 Sky Park Circle, Suite E, Irvine, CA, 92614
CHN: Block B2, 501, 601, Enterprise Accelerator, Kaifa District, Guangzhou, Guangdong, China

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