

# ULTRACRAFT A3D



## Intelligent Mass Production

- Flexible
- Automated
- High-volume

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.

## HEYGEARS

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# ULTRACRAFT A3D

The UltraCraft A3D, powered by DLP technology, is a high-volume dental 3D printer with scalable automation capabilities. The cutting-edge A3D printer has a compatible resin station that enables fully automated 24/7 mass production of multiple applications with reliability and accuracy.

**01** Fully Integrated Automatic Production

**03** A Larger Platform For All Dental Applications

**02** Fully Equipped Intelligent Mass Production

**04** Smart Design For User Convenience

**05** Powerful Integrated Software

**07** Service and Support

**06** Product Specifications

C O N T E N T S

# INTELLIGENT MASS PRODUCTION UNLEASHED





The SaaS Platform for Integrated Production Solutions

HEYGEARS DESIGN DENTAL



ULTRA-NET



Application Design

1

Compatible Design Software

3shape exocad

Compatible Scanner

MEDIT 3shape Dentsply Sirona iTero dental wings Carestream PLANMEGA



3D Printing

2

3 L Auto Resin Refill



24 L Resin Station



Dental Application Printing

Automated Part Removal



Post-processing

3

Ultrasonic Cleaner

UltraCraft PCU 3.0



Finished Products

4



# 01 Fully Integrated Automatic Production

“0”

Manual Operation

4-in-1

Compact Design

24/7

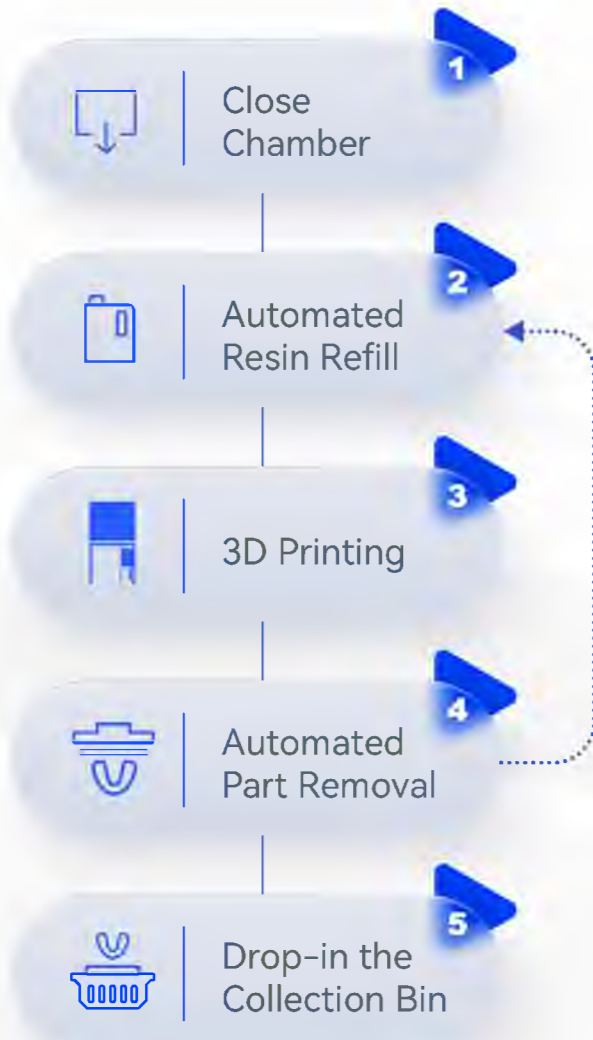
Continuous Production

# 02 Fully Equipped Intelligent Mass Production

## OPTION A

### True Automated Production 4 UltraCraft A3Ds + Automated Parts

Reduces the dependency on manual labor and, in turn, the cost for labs.



**1 Automated Resin Refill**  
Compatible with 1 L/3 L resin bottles  
Time to refill: **150 seconds**

**2 Automated Part Removal**  
Collection bin capacity **15 L\***  
Time for removal: **90 seconds**



Scan to Watch the Video

A3D

\*For ±250 full arch models.

# 02 Fully Equipped Intelligent Mass Production



## Digital Dental Revolution, 24/7 Non-stop Production UltraCraft A3D + Automated Parts + Resin Station

The resin station is made for dental labs with high-volume mass production needs. It houses 4 resin containers that hold up to 24 L in total. Connect each resin filling tube to an A3D for 24/7 production.

- 1 Ultra-high Resin Capacity
- 2 Resin Refill for up to 4 Printers
- 3 Individual Resin Material for Each Bottle
- 4 Easy Operation & Smart Control







### Clear Aligner Models

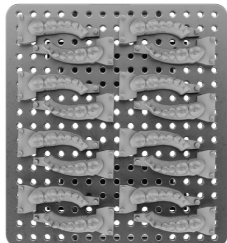
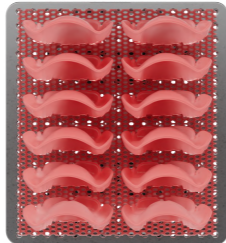
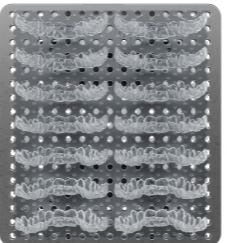
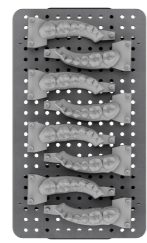
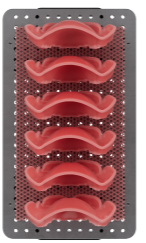
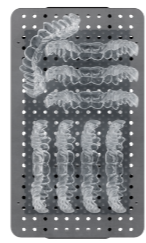
- For Children: 2880 pcs/24 hours
- For Adults: 2000 pcs/24 hours



# 03

## 03 A Larger Platform For All Dental Applications

- 
**Tmax 3.0 Technology**  
 Large scale production with 2160\*1920p high resolution.
- 
**93.65% Multi-batch Printing Consistency**  
 Print consistent and accurate results for every application.
- 
**± 37.5 µm Extreme Precision**  
 75 µm XY native pixel and industrial-grade Z-axis precision ranging from 25 to 250 µm.
- 
**2x Larger Build Volume**  
 The same print precision as an A2D but with a build platform twice as large for higher productivity.

|            |   |   |   |
|------------|---|---|---|
| <b>A3D</b> |  |  |  |
|            | Quadrant Model<br><b>16 pcs/63 mins</b>   | Full Denture Base<br><b>12 pcs/83 mins</b>  | Splint<br><b>14 pcs/195 mins</b>  |
| <b>A2D</b> |  |  |  |
|            | Quadrant Model<br><b>8 pcs/55 mins</b>  | Full Denture Base<br><b>6 pcs/40 mins</b>   | Splint<br><b>8 pcs/60 mins</b>  |



**50+**  
Dental Applications

**4**  
Major Fields of Dentistry

-  Fixed Restoration
-  Removable Restoration
-  Implants
-  Orthodontics



### Protective Cover

- 99.99% UV Blocking Rate
- Medical Detergents Resistance
- Anti-corrosion



### Built-in UV-filtered Light

- Visible Printing Process



### Thermostatic Chamber

- Optimum State for the Printing



### Dust-proof Optical Engine

- IP5 Dust Resistance
- Dust-free Production Process



### Status Light Strip

- Specific Lighting Effects for Corresponding Status

## 04 Smart Design For User Convenience

04



### PIR Sensor Module

- Human Body Induction
- Touch Screen Auto Turns On/Off



### 7-inch Touch Screen

- Narrow Bezel Design
- Portrait Orientation
- Visible Printing Process



### NFC Recognition

- Service Life Management
- Remaining Capacity Monitoring



Resin Tank



Platform



Scraper

# 05 Powerful Integrated Software

HeyGears Cloud is a software platform used to manage dental application production. It oversees the entire design, pre-processing, print production, and post-processing steps for 3D printing and offers technical service and assistance.

## 1 Complete Process Monitoring

- Open/Closed Chamber
- Production Process
- Remaining Resin Capacity
- Collection Bin Positioning
- Module Status

## 2 Over-the-air Updates

- Remote Updates for Features and Material Processes
- Remote Technical Support and Services
- Always Up-to-date Features & Services

## 3 Intelligent Business and Analysis Reports

- Daily, Monthly, Quarterly, and Annual Reports
- Equipment Status and Material Consumption Monitoring
- Production Strategy Optimization

## 4 Learning Center

- Digital Training Courses
- Relevant Information Sharing
- Hardware & Software Instructions

## HeyGears Cloud for Labs



### HeyGears Design Center

- 4 Main Fields of Dental Applications
- One-stop Service
- Customized Design
- Fast Delivery

### Pre-processing Service

- Get Started with One Easy Click
- Easily Switchable Application Presets
- Quick Cloud-based Operation
- Smart, Automated, and Efficient

### Production Management System

- One Click Cloud Access
- Flexible Task Management & Planning
- Fast and Accurate Problem Tracing
- Data-based Decision-making Improves Operation
- Data Security Mechanisms Provide Greater Protection

## 06 Service and Support



### Quarterly Inspection

Regular equipment inspections, corresponding reports, and necessary online services for software upgrades and hardware optimization.



### Equipment Maintenance

Early warning system for potential faults. Support for online maintenance, application fault diagnosis, and on-site repairs. HeyGears offers free replacements for equipment that cannot be diagnosed or repaired due to faults or usage wear.



### Further Support

If the maintenance exceeds 3 days, customers are able to send their printing tasks to HeyGears for printing.



**24/7 Online**  
& Offline Support



**30 Minute**  
Fast Response



**48 Hour**  
On-site Service

### Worldwide Service Outlets

Headquarters: Guangzhou, China

Global Coverage: North America, Latin America, Europe, Middle East, and Asia Pacific

## 07 Product Specifications

### ULTRACRAFT A3D

|                                  |  |
|----------------------------------|--|
| Build Volume                     | 159 × 144 × 110 mm<br>6.26 × 5.67 × 4.33 in  |
| Resolution                       | 2160 × 1920p                                 |
| XY Native Pixel                  | 75 μm  |
| Build Precision                  | ± 37.5 μm                                    |
| Wavelength                       | 385 nm                                       |
| Light Source Lifetime            | >30,000 hours                                |
| Machine Dimension<br>(W * D * H) | 510 × 550 × 1400 mm<br>20 × 21.65 × 55.12 in |
| Weight                           | 101 kg (117 kg including Auto Part Removal)  |
| Touchpad Size                    | 7"   |
| Voltage                          | 110–220 V, 50/60Hz, 500 W                    |
| Auto Part Removal                | Optional                                     |
| Auto Resin Refill                | Included                                     |
| NFC Recognition                  | Scraper, Build Platform, Resin Tank          |

### RESIN STATION

|                                  |  |
|----------------------------------|--|
| Machine Dimension<br>(W * D * H) | 570 × 370 × 900 mm<br>22.44 × 14.57 × 35.43 in |
| Weight                           | 45.7 kg  |
| Voltage                          | 100–240V AC, 50/60Hz, 225 W                    |