



PRICE LIST 2022



CERAMIC
PETG
PEEK
ALUMINA
NINJAFLEX (A)
NINJAFLEX (B)
RTV SILICONE
PVACMENTS, HYDROGELS
PHOTOCURABLE RESINS, PCL
ABS, FILAFLEX
MORE THAN 10,000 MATERIALS

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ENGINE SR

The Standard Resolution Platform for the Laboratory

Ideal for Standard prints, Multiple material prints, Exotic materials and Experimentation.

***not Recommended for Thermoplastics*

SPECIFICATIONS

- **Motion Control:**
 - Precision Ball Screw in Z-axis
 - Precision Linear Bearing Systems in X, Y, and Z Axes
- **Positional Resolution (minimum movement):**
 - 5 microns in the X and Y Axes
 - 1 micron in the Z-axis (layer thickness)
- **Positional Accuracy (full travel and return):**
 - +/- 50 microns in the X and Y Axes
 - +/- 10 microns in the Z-axis
- **Integrated Windows Tablet PC**
 - Multitouch Screen
- **Integrated Dual CAN-bus architecture**
- **Hotbed to 80°C**
- **Power: 750 W**
- **Voltage: 115/230 V**
- **Current: 16/8 A**
- **Frequency: 60/50 Hz**



UNENCLOSED ESR WITH ONE FH2-260 : \$2,700

ENGINE HR

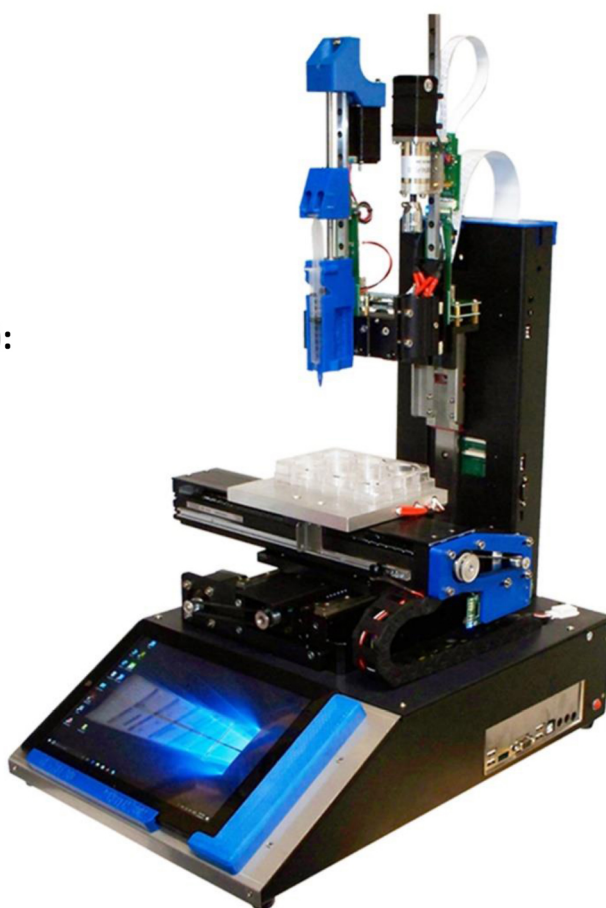
The High Resolution Platform for Biologicals and Micro-Scaffolds

Specifically engineered for microfluidics and bioplotting.

Configured for Wellplates & UV Photoinitiation

SPECIFICATIONS

- **Motion Control:**
Precision Ball Screws in ALL AXES
Precision Linear Bearing System in ALL AXES
- **Positional Resolution (minimum movement):**
1 micron X/Y/Z
- **Positional Accuracy (full travel and return):**
10 micron X/Y/Z
- **Integrated Windows Tablet PC**
Multitouch Screen
- **Integrated Dual CAN-bus architecture**
- **Optional Chilled Cold bed**
- **Power:** 750 W
- **Voltage:** 115/230 V
- **Current:** 16/8 A
- **Frequency:** 60/50 Hz



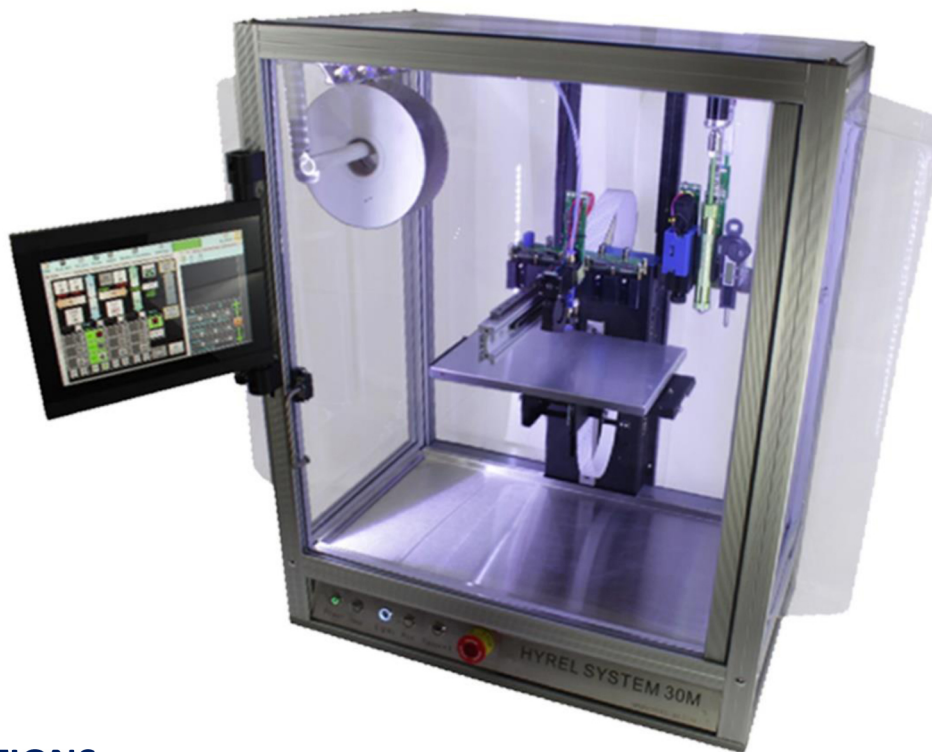
EHR WITH ONE FH2-260 : \$ 8,000



SYSTEM 30M

The Workhorse for Material Science

Ideal for Standard prints, Multiple material prints, Exotic materials and Experimentation.



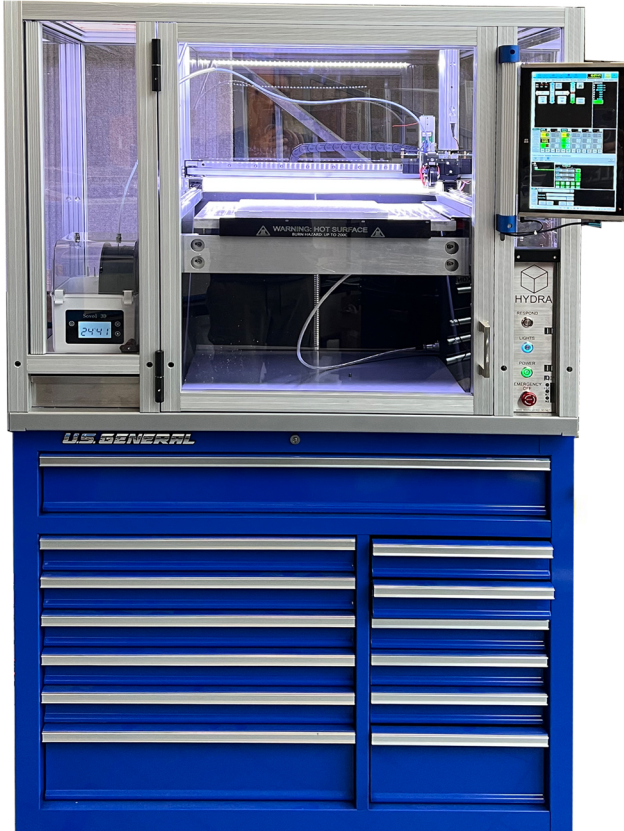
SPECIFICATIONS

- **Motion Control:**
Precision Ball Screw in Z-axis
Precision Linear Bearing Systems in X, Y, and Z Axes
- **Positional Resolution (minimum movement):**
5 microns in the X and Y Axes
1 micron in the Z-axis (layer thickness)
- **Positional Accuracy (full travel and return):**
+/- 50 microns in the X and Y Axes
+/- 10 microns in the Z-axis
- **Integrated Windows Tablet PC Multitouch Screen**
- **Integrated Dual CAN-bus architecture**
- **Hotbed to 80°C**
- **Optional Enclosure heater to 55°C**
- **Power: 750 W**
- **Voltage: 115/230 V**
- **Current: 16/8 A**
- **Frequency: 60/50 Hz**

ENCLOSED SYSTEM 30M WITH ONE FH2-260 : \$ 5400

HYDRA H21

The Rugged, Very Large Volume Printer for Serious Applications
with Dozens of Heads for Thousands of Materials and Multi-disciplinary Operations.



Base Printer (required; includes one MK1-250) Price

H21: Hydra H21 printer	7500
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Price

43W: Small, Warm (400x300mm, 120°C)	750
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43H: Small, Hot (400x300mm, 200°C)	1500
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54W: Large, Warm (500x400mm, 120°C)	1250
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54H: Large, Hot (400x300mm, 200°C)	2000
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*also Chilled and/or Vacuum Bed Options

Price

LA6-450: 6W, 450nm	1000
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LA5-808: 5W, 808nm	1000
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Price

ST1: 12VDC, 4A, 40W(5,000 rpm with no load)	525
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ST3: 48VDC, 8.3A, 400W (12,000 rpm with no load)	750
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Price

AY: 5 Tool Positions	1000
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Price

4A: 4th Axis (lathe style)	1000
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45A: 4th/5th Axis Combo (trunion style)	2000
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Price

PNP: includes head, camera, parts holder	2500
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SPECIFICATIONS

• Motion Control:

Four Precision Ball Screws in Z-axis

Precision Linear Bearing Systems in X, Y, and Z Axes

• Positional Resolution (minimum movement):

6 microns in the X and Y Axes

1 micron in the Z-axis (layer thickness)

• Positional Accuracy (full travel and return):

+/- 60 microns in the X and Y Axes

+/- 10 microns in the Z-axis

• Integrated Windows Tablet PC Multitouch Screen

• Integrated Dual CAN-bus architecture

• Enclosure can be heated to 55°C

• Power: 750 W

• Voltage: 115/230 V

• Current: 16/8 A

• Frequency: 16/8 A

MODULAR HEADS FOR HYREL PRINTERS

FDM/FFF and Specialty Tools

FILAMENT PRINTING

ALL 1.75mm FILAMENTS:

FH2-260 (up to 260°C)	\$500
FH2-450 (260°C to 450°C)	\$650

ALL 2.85mm FILAMENTS:

HT3-260 (up to 260°C)	\$650
HT3-450 (260°C to 450°C)	\$750

EXTRA COOLING:

QS – Quiet Storm additional fan	\$175
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CHAMBER HEATING (standard on Hydras):

HTC-110 – 110VAC Heater	\$500
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LASER ACCESSORIES

MODULAR DIODE LASERS FOR ALL MODELS:

LA6-450 – 6W, 450nm	\$1,000
LA3-450 – 3W, 450nm	\$500

SPINDLE TOOLS, EXTRA AXES

ST1: DC, 50W	\$525
ST3: Three Phase, 400W	\$750
4A - 4th Axis (lathe style)	\$1,000
45A - 4th/5th Axis Combo (trunnion style)	\$2,000

SPECIALTY TOOLS

ELECTRONIC PROBING HEAD:

VORF – Dual Scale probing head for Volts, Ohms, and RF measurements	\$2,500
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ENCLOSURE SENSOR (standard on Hydras):

HTS – Humidity, Temp. Sensor	\$150
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ELECTRO-MELT SPINNING:

EMS – Electro-Melt Spinning head	\$3,000
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PICK AND PLACE:

PNP – Head, camera, parts holder	\$2,500
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MICROSCOPY:

Mic200 – 200X USB Microscope	\$500
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CUSTOM DEVELOPMENT OPTIONS

YOU EXPERIMENT AND MAKE YOUR OWN HEADS:

SDK1 - Special Development Kit includes source code, firmware programming environment, and hardware components to make your own head – and assistance from our engineers. **\$500**

WE EXPERIMENT AND MAKE HEADS FOR YOU:

Do you have an idea for a new head, but lack the time or expertise to create it?

Reach out to us. Collaboration work is available, either on a head we sell publicly or on NDA work exclusively for you.

Pricing varies, contact us for details

MODULAR HEADS FOR HYREL PRINTERS

Direct-Ink and Robocasting of liquids, gels and pastes
Single-part or Multi-part (active or passive blending)

AMBIENT TEMPERATURE

ONE MATERIAL, UP TO 100,000 cP

SDS-001 - 1cc BD disposable syringes	\$400
SDS-005 - 5cc BD disposable syringes	\$400
SDS-010 - 10cc BD disposable syringes	\$400
SDS-030 - 30cc BD disposable syringes	\$400
SDS-060 - 60cc BD disposable syringes	\$400

MULTI-MATERIAL, UP TO 100,000 cP

DSD-50 - 1:1, twin 25cc disposable syringes	\$500
SMH-2 - programmed ratios from two SDS heads through a (static) blending nozzle	\$1,000
DMH-2 - programmed ratios from two SDS heads with dynamic (active) blending blades	\$2,500

ONE MATERIAL, UP TO 300,000 cP

EMO-25 - 25cc aluminum reservoir	\$450
SDS-030XT - 30cc disposable syringes	\$600
SDS-060XT - 60cc disposable syringes	\$600
SDS-150XT - 150cc disposable syringes	\$600

ONE MATERIAL, UP TO 1,000,000 cP

EMO-XT - 15cc stainless reservoir	\$750
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HIGHER TORQUE, SMALLER VOLUME

Our EMOXT, KR2, and TAM head can also accept special HTK stainless steel reservoirs, with 1.5cc volume for thicker materials:

HTK-90 - 1.5cc up to 90C	\$400
HTK-180 - 1.5cc up to 180C	\$500
HTK-270 - 1.5cc up to 270C	\$600

Note, these reservoirs require a head (EMOXT, KR2, or TAM) to provide the heat and perform the dispensing).

UV PHOTOINITIATION

HIGH-POWER UV LIGHT PENS:

UVP-365 - 356nm light pen	\$1,000
UVP-405 - 405nm light pen	\$1,000
UVP-450 - 450nm light pen	\$1,000

LOW-POWER UV LED ARRAYS:

PCA-280 - 280nm uv array	\$500
PCA-310 - 310nm uv array	\$500
PCA-365 - 365nm uv array	\$150
PCA-405 - 405nm uv array	\$150
PCA-450 - 450nm uv array	\$150

TEMPERATURE CONTROLLED

ONE MATERIAL, UP TO 100,000 Cp

Heated up to 50°C:	
HSD-030 - 30cc BD disposable syringes	\$650
Heated up to 100°C:	
HSD-010 - 10cc Ardes reusable syringes	\$850
Chilled down to 0°C:	
RSD-30 - 30cc BD disposable syringes	\$1,000

ONE MATERIAL, UP TO 300,000 Cp and 90°C:

VOL-25 - 25cc aluminum reservoir	\$600
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ONE MATERIAL, UP TO 1,000,000 Cp and 180°C:

KR2-15 - 15cc stainless reservoir	\$1,000
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ONE MATERIAL, UP TO 1,000,000 Cp and 270°C:

TAM-15 - 15cc stainless reservoir	\$1,500
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ADVANCED FLOW CONTROL

CLENCH VALVE for instant flow start/stop:

CV - clench valve for most heads on this page	\$500
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All heads can take luer fittings. Other wavelengths for UV Photoinitiation is available upon request.
If you need a custom solution or special needs, feel free to contact us.