

Why **Play**  
**Around**  
with Ordinary **3D**?  
**Printers**!



[www.3dpunlimited.com](http://www.3dpunlimited.com)

**Big Build Area**

1 meter x 1 meter x 0.5 meter

**Economical**

Print real parts & prototypes  
without large capital investment

**Accurate**

Layer resolution to 70 microns

**Robust**

Industrial strength mechatronics



**Scale-Up** with the **3DP1000** Printer  
from **3DP**  
**Unlimited.**<sup>TM</sup>

# About 3DP Unlimited™



## WHO IS 3DP UNLIMITED?

**3DP Unlimited™**, a division of **PBC Linear®**, is a company of skilled mechatronics engineers who embrace rapid advances in technology to innovate, design, and build next generation equipment for additive manufacturing. Having personal experience with inconsistent results produced by traditional 3D printer designs, **3DP Unlimited** is committed to building on industrial strength linear motion components, actuators, and motors while maintaining affordable flexibility with open source control solutions.

## ADVANTAGES OF 3D PRINTING

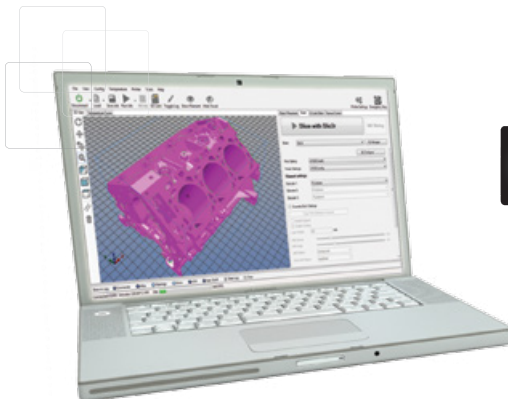
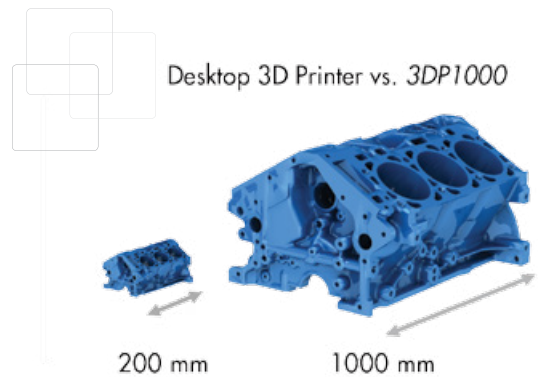
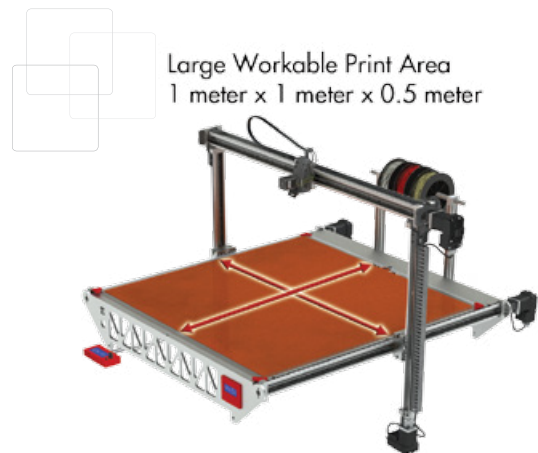
- Print real parts for the real world
- Rapid prototyping – design and test models before mass production of engineered parts
- Save time and money by printing and testing parts in-house without waiting on outsourced parts and long lead times

## WHY LARGE FORMAT?

- Print multiple production parts at one time
- Print 1-to-1 scale prototypes and models

## INDUSTRIAL STRENGTH

- Mechanics built on the SIMO® Series Linear Motion Actuators from PBC Linear®
- Incorporates Constant Force™ lead screws with anti-backlash nuts for repeatable accuracy over the life of the system
- Utilizes integrated stepper motor/amplifiers, with micro-stepping up to 25000 steps per revolution, for simplified wiring from *Applied Motion Products*



## OPEN SOURCE

The term, **Open Source**, most commonly refers to a computer program or programs in which the source code is available to the public for use and can be modified from its original design. The **3DP1000** printer from **3DP Unlimited** utilizes open source software and control platforms. This provides a cost-effective and easy-to-use interface with the printer.

## Printer Options

### BASE PRINTER

- Included with base printer purchase:
  - 3DP1000 printer mounted on an industrial cart
  - LED display with SD card
  - Filament spool rack with 1 kg spool of 3 mm PLA filament
- Dimensions of build area:  
1 m x 1 m x 0.5 m  
39.3" x 39.3" x 19.6"
- Dimensions of printer with linear actuators and motors:  
1.422 m x 1.358 m x 0.990 m  
56" x 53.5" x 39"
- Dimensions of cart with wheels:  
0.762 m x 1.524 m x 0.876 m  
30" x 60" x 34.5"

**\$15,999**

### BASE-PLUS PRINTER

- Included with base-plus printer purchase:
  - 3DP1000 printer mounted on an enclosed industrial cart
  - LED display with SD card
  - Filament spool rack with 1 kg spool of 3 mm PLA filament
- Dimensions of build area:  
1 m x 1 m x 0.5 m  
39.3" x 39.3" x 19.6"
- Dimensions of printer with linear actuators and motors:  
1.422 m x 1.358 m x 0.990 m  
56" x 53.5" x 39"
- Dimensions of cart with wheels:  
0.787 m x 1.549 m x 0.876 m  
31" x 61" x 34.5"

**\$16,699**

# Specifications

**Printer Type:** FFF – Fused filament fabrication is an additive manufacturing technology commonly used for modeling, rapid prototyping, and production applications.

**Build Area:** 1 meter x 1 meter x 0.5 meter  
(39.3" x 39.3" x 19.6")

**Layer Resolution:** Down to 70 microns (0.0027")

Note: Accuracy is dependent upon slice settings, geometry, print speed, filament quality, and a range of other factors. Under average conditions, it is typical to hold layer resolution of 100 microns with a well-tuned and calibrated printer configuration.

**Material Compatibility:** PLA – Polylactic Acid, standard. A multitude of materials, including ABS – Acrylonitrile Butadiene Styrene, are compatible with additional printer options.

\*Note: Some materials may require increased bed and nozzle temperatures, as well as additional ventilation.

**Filament Diameter:** 3 mm (0.118")

**Standard Extruder Nozzle Diameter:** 0.4 mm

**Connectivity to Laptop:** USB

**\*Non-Standard Options:** Consult factory for non-standard options such as dual extruder, enclosure system, and 220 V.



## RECOMMENDED SOFTWARE

**www.repetier.com** **Open Source**

Repetier Host is free, open source software used to operate your 3D printer – with controls for temperature, speed, flow, and movement. The program prepares the objects that you want to print, allows you to duplicate, rotate, scale, and arrange them on the print bed. It also includes an interface with Slic3r for easy object manipulation and quality control for printing.

**www.slic3r.org** **Open Source**

Slic3r is a free, open source software package for visualization and image analysis. The program processes an .stl file (stereolithography file format), cutting the model into horizontal slices – called layers – generating tool paths to fill them and calculating the amount of material that will be extruded.

**www.simplify3d.com** **\$\$**

Simplify 3D is an easy-to-use program used to import, repair, slice, preview, and print all from the same application. This a simplified alternative to other programs.

## PHYSICAL DIMENSIONS & WEIGHT

### Overall Width:

1.422 meters  
56 inches

### Overall Depth:

1.676 meters  
66 inches

### Overall Height:

1.524 meters  
60 inches



**Approx. System Weight:** 300 lbs.

## SHIPPING INFORMATION

### Crate Dimensions:

1.524 m x 1.828 m • 5 ft x 6 ft

**Approx. Shipping Weight:** 600 lbs.

## Ambient Operating Temperature Needed:

15° - 32°C (60° - 90°F)

## ELECTRICAL

**AC Input:** 110 V, 15 Amp, 60 Hz

Note: 220 V upgrade available for materials requiring higher temperatures.

## MECHANICAL

**Print Bed:** Heated borosilicate glass, 5 mm thick

**XYZ Axis:** Lead screw driven SIMO® Series linear actuators from PBC Linear®. Screw max values: 640 RPM, 16000 mm/min, 267 mm/sec.

**Stepper Motors:** Nema 23 stepper motors from Applied Motion Products with integrated amplifier and 800 micro-stepping (as set at factory). M/S option up to 25000 available.

**3DP Unlimited™ • www.3DPunlimited.com**  
**779-771-9296 • marketing@3dpunlimited.com**