

New LCD 3D Printers on the Market in 2022

Best 3D Printers in 2022

RED CREEK, N.Y., UNITED STATES, August 30, 2022 /EINPresswire.com/ -- As 3D printing technology continues to become more affordable and widely available, Resin 3D printers have become a popular option for anyone interested in creating highly-detailed objects that would not be practical with a filament-fed, FDM 3D printer. Due to their straightforward mechanical design and common single axis of motion, these MSLA (Masked Stereolithography) resin 3D printers are sometimes available for less than \$300. We have compiled this list of the top new LCD 3D printers on the market in 2022 due to the abundance of models on the market.

The best resin 3D printers can cure liquid resin using a UV light source to create models with high resolution. These printers are able to produce models with a resolution of as little as .035mm on the XY axes thanks to the MSLA method, which employs a masking LCD to block the UV light pixel by pixel selectively. This high resolution comes at a cost because UV resin must be handled carefully and objects printed on a resin 3D printer need to be post-processed after printing.

Be sure to give these questions some thought before choosing one of the best resin 3D printers because there are various things to consider.

Factors to consider before buying Resin 3D Printers



Printing Ratings

3D Printing Ratings

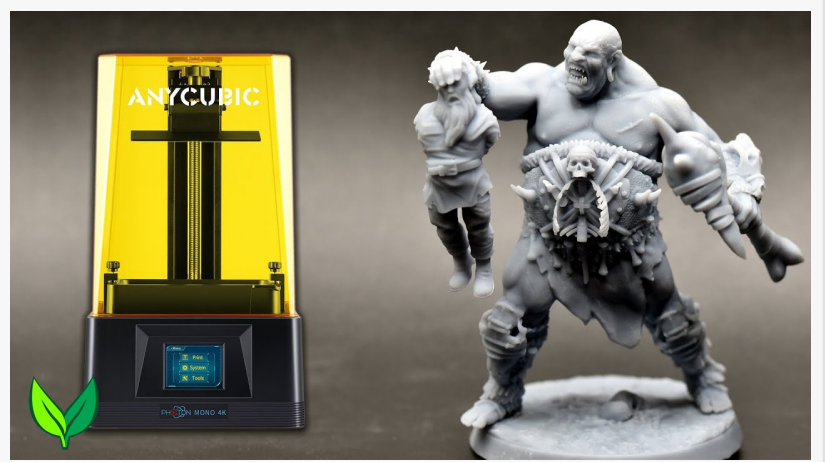


Phrozen Sonic Mini 4K

Mono or RGB LCD?

Your resin 3D printer's masking LCD type could have the most single impact on how quickly you produce objects overall.

RGB masking LCDs are less expensive because they are frequently used in other electronics, but they are slower because they do not efficiently let UV light through and require more exposure time per layer. The RGB LCD on the Creality LD-002R needs 9 seconds per layer, whereas the Mono LCD on the Elegoo Mars 2 Pro only needs 2.2 seconds per layer.



Anycubic Photon Mono X

Build Volume

You can run into limitations because resin 3D printers often have smaller build capacities than FDM 3D printers. Consider a big-size resin 3D printer like the Elegoo Saturn or the Anycubic Photon Mono X if you are interested in printing large parts.

2K, 4K, or Beyond?

To put this in perspective, it implies that even a very low-resolution resin 3D printer can produce incredibly tiny details that just cannot be produced on an FDM printer. For example, the Elegoo Mars 2 Pro resin 3D printer has a 6.08-inch 2K screen and can print with a layer height of .05mm and an XY resolution of .05mm. If you need even more resolution, a 4K screen is capable of making finer details but is often more expensive.

Post Processing Equipment

Parts made by resin 3D printers need to be post-processed before they are finished. To fully polymerize the part, a UV light cure cycle is usually used after the pieces have been rinsed in a solvent to remove any excess resin from their surface. This procedure can be carried out manually by immersing the parts in a solvent and using a cheap UV light to cure it. Still, some manufacturers have developed post-processing equipment like the Elegoo Mercury X that automates the procedure and minimizes the mess.

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1. [Phrozen Sonic Mini 4k](#)

Due to its 4K Mono LCD and plug-and-play compatibility with the Chitubox slicer app, the Phrozen Sonic Mini 4K delivers a quick 2.2-second exposure time. With a best-in-class XY resolution of .035mm, the Sonic Mini 4K is the ideal choice for anyone looking to print small objects with exceptional accuracy and detail.

Extreme degrees of detail is possible with the .035mm XY resolution, allowing for flawlessly complex model construction. The Sonic Mini 4K, however, has a Z axis of 130mm, significantly shorter than most other resin 3D printers in this price range. Additionally, the build platform uses a four-bolt leveling system that can be challenging to calibrate precisely.

The Sonic Mini 4K is the ideal printer for jewelers looking to create highly detailed castable-wax prints, dentists interested in creating accurate dental models, and anyone else interested in high-accuracy printing. It costs \$399 on Amazon and \$349 directly from Phrozen.

Pros

- Native integration with the ChituBox slicer app
- 4K resolution provides highly detailed XY accuracy

Cons

- The review unit had some quality-related issues
- Difficult bed leveling process

2. [Elegoo Mars 3](#)

The Elegoo Mars 3 is a fantastic place to start if you are searching for a dependable 3D printer to begin your experience with resin printing. The printer can produce models with exquisite detail with its excellent 4K resolution and simple leveling system.

When choosing their first printer, beginners should take into account the high cost of resin; nevertheless, the Elegoo Mars 3 only requires 350ml to fill its vat. There is enough room for gaming miniatures and models in the build volume, which is average for its class.

A free year subscription to Chitubox Pro, a well-known paid slicer, is included with the Elegoo Mars 3 to provide a quality experience.

Pros

- Fast 2.5 second per-layer cure time
- Easy to level
- 4K resolution
- Free year of Chitubox Pro

Cons

- The plastic base feels cheap

3. [Anycubic Photon Mono X 6K](#)

One of the biggest problems with resin-based printers is that they usually trade off size for

detail. The Anycubic Photon Mono X 6K solves that problem by offering a sizable build plate, while the 6K screen ensures no print quality loss as you scale up. It is perfect for larger figurines, cosplay props, and prototyping because of its high resolution and large build plate, allowing users to print detailed figures on a larger scale.

The Anycubic Photon Mono X 6K utilizes quite large fans with noise to maintain the machine at an optimum temperature, which is one of its few drawbacks. However, staying in the same room while resin printers are in use is not advised anyway, so behind a closed door, you will only hear a muffled whirling.

Pros

- Excellent print quality
- Large build capacity
- Screen protector provided

Cons

- Fans are loud

Michael Scott

3D Printing Ratings

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