

## Just What Can You Do With 3D Printers

3D imaging has moved from the virtual world to the real world with the advent of affordable quality [3D printers](#). For years 3D Printers were expensive, cumbersome and hard to use. That is no longer the case. Now 3D Printers are fun, easy to use, small enough to fit on a desktop and affordable and will become more affordable going forward as prices keep coming down now that more people are buying them. But what can you do with them?

It turns out, all sorts of things. Of course, you can 3D Print a Yoda statue or a bust of the President or some form of art or toy, but they can be used for much more. The Smithsonian is currently 3D Scanning their Dinosaur collection and making the files available on line. That means you can log in, download the files and 3D Print your very own Dinosaur. Archaeologists are [3D imaging and 3D Printing](#) relics. Now students can actually handle artifacts without fear of damaging a priceless find, making them better students. Dentists are using 3D Printers for temporary false teeth. Machine shops are 3D Printing molds of hard to find parts and casting them in short runs for clients. Engineers are 3D Printing prototypes; Architects are 3D Printing building models; chefs have 3D Printed chocolate in intricate designs combining food and art; a firm even 3D Printed a bridge over a river by merging a 3D Printer with a robot.

We have seen that 3D Printers are great for businesses. Major business magazines are calling 3D Printers the future of business and manufacturing. With 3D Printers, a business can make small lots of products or parts and can have the capability of supplying products or parts on demand. 3D Printers make Just In Time Manufacturing a reality because it is now cost effective to manufacture in small amounts rather than wait for demand and have large lot runs of products. They can customize products for individual customers. They can create individualized products especially for each customer as well. This is

the potential of 3D Printing. Anyone can be a manufacturer. Anyone can produce usable products.

3D printers are great for schools and not just engineering departments of colleges and universities. There are entire curriculums available for K through 12 classes centering on Math, Science, History and yes Art. And departments other than Engineering can benefit from 3D Printers on the university level. Chemistry and Physics departments can 3D Print molecules and atoms, making tangible what has been only described or viewed in a 2D image. History departments can 3D Print a village from the 17<sup>th</sup> century and give students a better understanding of the layout. Priceless artifacts can be 3D Scanned and 3D Printed giving students a hands on experience of things too valuable to be handled before. The possibilities are nearly endless.

As more and more folks get access to this technology, more possibilities will come out. Who knows what people will achieve with this. It should be fun finding out.

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