

Solid Concepts 3D prints world's first metal gun (w/ Video)

November 8 2013, by Bob Yirka



(Phys.org) —3D printing company Solid Concepts has [announced](#) that it has 3D printed the world's first metal gun—other guns printed using 3D printers have been made of plastic. Representatives for Solid Concepts say they created the gun to demonstrate how strong and accurate products made using 3D printing technology can be.

Over the past year, reports of guns being printed using relatively inexpensive 3D printers have raised concerns regarding a new way for people to gain access to weapons. Such concerns have died down, however, as newer reports have pointed out the weaknesses of plastic guns—they don't last more than one or two firings. That's not the case with the [gun](#) printed by Solid Concepts—engineers there fired their weapon over 50 times, with no apparent problems.

Printing with [metal](#) instead of plastic requires a whole new level of printer—one so expensive that most could not afford to buy or even rent one, thus, news of a printed metal gun isn't like to spark much if any controversy. It does however, as the company that printed the gun points out, highlight just how far 3D printing has come. In this case, the printer uses what is known as a direct metal laser sintering (DMLS) process—metal powder is heated to create a type of ink that can be used for printing. In the past, the process has been used to create surgical implant and aerospace parts. The newly printed gun, created using blueprints of a real handgun formerly used by the US military, was made by printing almost all of the parts—it was finished by assembling by hand. No machining was necessary, just some hand tooling. The process even included rifling (grooves inside the barrel that cause the bullet to spin as it's ejected) to ensure accuracy.

Reps for Solid Concepts also note that printing their gun was completely legal—the company holds a Federal Firearms License. They add that the metal in their gun has less porosity than poured metal and allows for more complexity than metal that is cut using lasers. They hope to begin selling hard-to-find gun parts to manufacturers in the very near future.

More information: blog.solidconcepts.com/industry-news/d-printed-metal-gun/
www.solidconcepts.com/

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