3-D Printed Firearms: How We Got Here, The Ever-Changing Threat, and How We Might Prepare for the Future

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The advent and increasing affordability of 3-D printers has brought with it new problems as well. Commercially available printers allow users to print almost anything they can think of as long as they have a design file for it. Most users use these tools to print fairly innocuous items, ranging from prototypes or models to tools, toys, and jewelry. However, the 3-D printer has also brought with it the ability for users to print unregistered and untraceable firearms from the privacy of their own homes. This problem first materialized in 2012 with Defense Distributed, an open-source company that creates digital schematics for firearms that can be downloaded and used to print those firearms by anyone with a proper 3-D printer. Defense Distributed uploaded various computer aided design (CAD) files, including the plans for a single shot pistol, The Liberator. The United States government was quick to step in and force the company to take down the CAD files while they decided if distribution of the design constituted a violation of the International Traffic in Arms Regulations (ITAR). A change in administration resulted in the government settling with Defense Distributed out of court. The Department of State issued the company a license allowing them to again distribute the plans online and announced that 3-D gun blueprints would no longer fall under the purview of ITAR. Defense Distributed's victory was short lived as various states brought lawsuits against the company, seeking to stop the dissemination of the CAD files online. While these lawsuits are ongoing, a temporary injunction remains in place that still prohibits the publishing of the gun blueprints. More recently, Defense Distributed decided to sell a CNC milling machine that is very similar to a 3-D printer. This device uses CAD files as a guide to mill aluminum into metal firearm frames and parts, allowing owners to make untraceable firearms in their homes. While these machines do not ?print? an entire weapon they still present a potential threat to public safety. The most pressing threat posed by unregulated firearms is the proliferation of at-home ghost gun kits. While the Department of Justice is on the verge of closing significant federal regulatory loopholes that have helped allow this rise in ghost guns, the surge is indicative of more problems to come. This note will describe all of the relevant background behind the 3-D printing of firearms and the evolving legal landscape. This note will then proceed to discuss the current proliferation of ghost gun kits since the beginning of the COVID-19 pandemic within the larger context of untraceable firearms. This note will also consider the existing major firearm regulatory schemes and if any of them could be used to regulate 3-D firearms in the future. Furthermore, this note addresses various constitutional hurdles that lawmakers face in attempting to regulate 3-D printed guns, the 3-D printers, or the 3-D blueprints. Lastly, this note will discuss potential solutions to the 3-D gun regulation problem and how they might be implemented sooner rather than later.

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