

**Department of Legislative Services**  
Maryland General Assembly  
2019 Session

**FISCAL AND POLICY NOTE**  
**First Reader**

Senate Bill 8

(Senator Benson)

Judicial Proceedings

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**Criminal Law - Computer-Aided Firearm Fabrication - Prohibitions**

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This bill prohibits, with specified exceptions, a person from (1) using a “computer-aided fabrication device” to manufacture a firearm, (2) possessing, selling, offering to sell, transferring, purchasing, or receiving a firearm manufactured using a computer-aided fabrication device, and (3) possessing and intentionally retaining, or distributing, transmitting, publishing, selling, offering to sell, transferring, or purchasing computer control language, a computer program, computer software, or a computer database that is capable of being run or executed using a computer or computer system that is connected to or part of one or more computer-aided fabrication devices and designed to cause a computer-aided fabrication device to operate for the purpose of manufacturing or otherwise fabricating a firearm. A person who violates any of the bill’s prohibitions is guilty of a misdemeanor and on conviction subject to maximum penalties of five years imprisonment and/or a \$5,000 fine.

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**Fiscal Summary**

**State Effect:** Potential minimal increase in general fund revenues and expenditures due to the bill’s penalty provisions.

**Local Effect:** Potential minimal increase in revenues and expenditures due to the bill’s penalty provisions.

**Small Business Effect:** None.

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## Analysis

**Bill Summary:** The bill’s provisions do not apply to (1) the manufacture or possession of a firearm for testing or experimentation authorized by the Secretary of State Police or the Secretary’s designee, or by a federally licensed gun manufacturer, or (2) the possession of a firearm manufactured by a federally licensed gun manufacturer.

“Computer-aided fabrication device” means a computer-controlled device or machine capable of operating (1) on physical material or media to manufacture or fabricate an object; (2) using specifications contained in computer control language, a computer program, computer software, or a computer database; and (3) without the direct and continuous control of a person. “Computer-aided fabrication device” includes a computer-controlled three-dimensional (3D) printer, cutting machine, electrical discharge machine, and milling machine.

The statutory definitions for the terms “computer database,” “computer program,” “computer software,” and “computer system,” among others, are also incorporated into the bill.

**Current Law:** Generally, State law prohibits a person from manufacturing for distribution or sale a handgun that is not included on the handgun roster in the State. However, law enforcement may not be aware of handguns manufactured within a person’s home for personal use until the handgun is used or transferred.

The federal Undetectable Firearms Act prohibits a person from manufacturing, importing, selling, shipping, delivering, possessing, transferring, or receiving any firearm that is not as detectable by walk-through metal detector as a security exemplar containing 3.7 ounces of steel, or any firearm with major components that do not generate an accurate image before standard airport imaging technology. The federal prohibition was first enacted in 1988 and was renewed for 10 years in December 2013.

The Criminal Law Article contains the following definitions, among others, that are related to computer programming:

- “computer control language” means ordered statements that direct a computer to perform specific functions;
- “computer database” means a representation of information, knowledge, facts, concepts, or instructions that is intended for use in a computer, computer system, or computer network and is being prepared or has been prepared in a formalized manner, or is being produced or has been produced by a computer, computer system, or computer network;

- “computer program” means an ordered set of instructions or statements that may interact with related data and, when executed in a computer system, causes a computer to perform specified functions;
- “computer software” means a computer program, instruction, procedure, or associated document regarding the operation of a computer system; and
- “computer system” means one or more connected or unconnected computers, peripheral devices, and computer software, data, or computer programs.

**Background:** 3D printing, also known as additive manufacturing, is a process that uses computer-aided design files to direct a 3D printer to deposit a material, such as plastic, layer-by-layer, to create a 3D solid object of virtually any shape. The functionality of 3D-printed firearms varies depending on the quality of plastic used, the calibration and quality of the 3D printer, and postprinting assembly.

One of the first almost completely 3D-printed plastic handguns is known as the Liberator. The Liberator requires some postprinting assembly and is capable of firing a single shot. The only nonprinted components of the Liberator are the firing pin – a standard metal nail – and a six-ounce piece of steel. The six ounces of steel make the Liberator detectable to a metal detector, as required under the federal Undetectable Firearms Act. Although federal and State laws generally regulate the acquisition and possession of regulated firearms, rifles, and shotguns, 3D-printed firearms, such as the Liberator, do not have serial numbers and, as a result, are virtually untraceable.

The Liberator was designed and released by Defense Distributed, an online, open-source organization that develops digital schematics of firearms used in 3D printing and other automated firearm production. In 2012, Defense Distributed launched a website to publicly host firearm files available for public download for free or for a nominal donation. On May 6, 2013, Defense Distributed released the Liberator’s plans online. Defense Distributed alleges that plans for the Liberator were downloaded more than 100,000 times in two days before the U.S. Department of State demanded that Defense Distributed remove from the Internet the Liberator’s plans along with the plans of nine other 3D-printable firearms components. Ongoing litigation currently blocks online distribution of such plans in the United States.

Although 3D printing has received the most media attention, computer numerical controlled (CNC) milling is also revolutionizing the way firearms are produced at home. The Ghost Gunner 2 is a CNC mill sold with the cut codes to significantly create components of a firearm. The Ghost Gunner 2 is sold online by Defense Distributed for \$2,000. Like a 3D-printed firearm, a CNC milled component does not have a serial number. A CNC milled lower receiver is made of metal and is therefore more durable than a plastic

3D-printed component. Like traditionally handmade components, CNC milled components require postmilling assembly in order to produce a firearm capable of firing a bullet.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** None.

**Information Source(s):** Maryland State Commission on Criminal Sentencing Policy; Judiciary (Administrative Office of the Courts); Office of the Public Defender; Department of Public Safety and Correctional Services; Department of State Police; Department of Legislative Services

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