Date of Hearing: March 24, 2026
Counsel: Dustin Weber

ASSEMBLY COMMITTEE ON PUBLIC SAFETY
Nick Schultz, Chair

AB 2047 (Bauer-Kahan) – As Introduced February 17, 2026

SUMMARY: Requires the Department of Justice (DOJ) or other relevant state agency, among other things, to engage in an investigation of known firearm blueprint design files and existing firearm blueprint detection algorithms and any business that produces or manufactures three-dimensional printers for sale or transfer in California to submit to the DOJ an attestation for each make and model of printer they intend to make available for sale or transfer in California, as defined. Specifically, **this bill**:

1) States that the DOJ or other relevant state agency shall engage in an investigation of known firearm blueprint design files and existing firearm blueprint detection algorithms.

2) States that the DOJ or other relevant state agency may create, maintain, and regularly update a library of firearm blueprint files and illegal firearm parts blueprint files for use by firearm blueprint detection algorithm designers, or may coordinate with another government agency or major research institution, including, but not limited to, a University of California academic department, to create, maintain, and regularly update a library with safeguards to prevent unauthorized access to, or misuse of, the library.

3) Requires on or before July 1, 2027, the DOJ or other relevant state agency shall publish written guidance on performance standards for persons or entities engaged in the creation of firearm blueprint detection algorithms to be certified for three-dimensional printer manufacturer use in complying with specified laws.

4) States that the DOJ or other relevant state agency may seek input from relevant stakeholders and technical experts in the process of preparing written guidance on performance standards for firearm blueprint detection algorithms.

5) Provides that the performance standards shall require that firearm blueprint detection algorithms have the capacity, with a high degree of accuracy, to do all of the following:

    a) Evaluate three-dimensional printing files, whether in the form of STL files or other computer-aided design files or geometric code.

    b) Detect and identify any such files that can be used to program a three-dimensional printer to produce a firearm or illegal firearm parts.

    c) Flag any disallowed files for rejection by a software control process.

6) Provides that the performance standards shall require that, at a minimum, firearm blueprint detection algorithms have the capacity to utilize an inventory of disallowed firearm blueprint

files that have been commonly downloaded or shared on public internet forums to detect those files and modified versions of those files.

7) States that the DOJ or other relevant state agency shall not require that a firearm blueprint detection algorithm produce a perfect success rate at detecting disallowed files.

8) States that the DOJ or other relevant state agency preparing the written guidance on performance standards shall include performance standards requiring that the firearm blueprint detection algorithm have the capacity to implement regular updates to the set of disallowed firearm files it has the capacity to detect, to an extent and with a frequency to be determined by the department that accounts for the rate of innovation for the design and availability of new firearm blueprint files.

9) States that the DOJ or other relevant state agency preparing the written guidance on performance standards shall periodically review emerging detection software techniques, including, but not limited to, advanced forms of image recognition and pattern analysis as well as volumetric search functionality.

10) Provides that if, at any time, the department or other relevant state agency preparing the written guidance on performance standards determines that a novel technique with a substantially higher degree of performance is available to be utilized by algorithms already certified, as specified, the DOJ or other relevant state agency preparing the written guidance on performance standards may require that previously certified algorithms update their technology to match or exceed the performance of that novel technique.

11) Provides that any vendor with a previously qualified algorithm who is required to make that update shall have a reasonable period of time, not less than three months, to update their previously qualified algorithm.

12) Requires that on or before January 1, 2028, the DOJ or other relevant state agency that prepared the written guidance on performance standards described in this section shall accept applications for certification of firearms blueprint detection algorithms and begin issuing certifications of algorithms that meet or exceed the performance standards, as described.

13) States that for purposes of evaluating applications for firearm blueprint detection algorithm certification, the DOJ or other relevant state agency that prepared the written guidance on performance standards described in this section shall require applicants to satisfy both of the following:

    a) Identify the inventory of firearm blueprint files used to design the algorithm so that the department or other relevant state agency evaluating applicants may assess and confirm that the file inventory is sufficiently thorough.

    b) Provide access for testing, as well as schematics or other detailed explanation of their technology sufficient for the department or other relevant state agency evaluating applicants to evaluate its suitability for certification.

14) Provides that the list of firearm blueprint detection algorithms that have received certification as meeting or exceeding performance standards shall be made publicly available on the internet website of the department or other relevant state agency issuing certification.

15) Requires the DOJ or other relevant state agency issuing certification to revoke certification for a firearms blueprint detection algorithm if, at any time, it fails to meet the performance standards for certification, including, without limitation, failure by a certified algorithm to implement regular updates to its inventory of disallowed files as required by the DOJ or relevant state agency, or to update its technology to match the state-of-the-art performance of an emerging detection technique as required.

16) States that in the event of a specified revocation, the DOJ or relevant state agency shall notify relevant printer manufacturers with printer models known to use that algorithm that an algorithm they have deployed is no longer certified, and the manufacturer shall have a reasonable period, not less than three months, to update their model and resubmit their attestation of use of certified blocking technology, as described.

17) States that the DOJ or relevant state agency shall engage in an investigation of existing software controls processes available for use in three-dimensional printers for the purpose of preventing three-dimensional printing of firearms and illegal firearm parts.

18) Requires that on or before July 1, 2027, the DOJ or relevant state agency shall publish written guidance on performance standards for persons or entities engaged in the creation of software controls processes to be certified for three-dimensional printer manufacturer use in complying defined laws.

19) States that the DOJ or other relevant state agency preparing the written guidance on performance standards may seek input from relevant stakeholders and technical experts in the process of preparing written guidance on performance standards for software controls processes, including from persons who provide software, firmware, or other services integral to establishing software controls processes for three-dimensional printers.

20) Establishes that the performance standards shall require that software controls processes have the capacity, to a high degree of reliability, to effectively prevent a technically skilled user from evading a firearms blueprint detection algorithm.

21) States that the DOJ shall not require that a software controls process produces a perfect success rate at preventing a user from evading a firearms blueprint detection algorithm.

22) Provides that the performance standards shall set out options for design forms that may be used for a software controls process integration into a three-dimensional printer, including all of the following:

    a) Firmware design.

    b) Integrated preprint software design.

    c) Any other form, including, but not limited to, handshake authentication design, if the department first determines that the software controls process is both of the following:

i) At least as effective in ensuring no print jobs can proceed unless they are evaluated by a firearm blueprint detection algorithm as the design forms described.

ii) At least as resistant to being defeated by a technically skilled user as the design forms described in subparagraphs (A) and (B).

23) Provides that the written guidance shall include both of the following:

a) For firmware design, guidance for how vendors are required to demonstrate that their technology will ensure a printer directs potential print jobs to the algorithm before printing can occur.

b) For integrated preprint software design, guidance for how vendors shall demonstrate that printers will accept print jobs exclusively from a single preprint software and will not accept print jobs from any other preprint software, including from a user seeking to evade a detection algorithm.

24) Requires that on or before January 1, 2028, the DOJ or other relevant state agency that prepared the written guidance on performance standards described shall accept applications for certification of software controls processes and begin issuing certifications of software controls processes that meet or exceed the performance standards described.

25) Provides that for purposes of evaluating applications for certification, the department or other relevant state agency evaluating applicants shall require applicants to provide software and hardware, as applicable, for testing by regulators, as well as schematics or other detailed explanation of their technology sufficient for the DOJ to evaluate its suitability for certification.

26) Establishes that the list of software controls processes that have received certification as meeting or exceeding performance standards shall be made publicly available on the internet website of the department or other relevant state agency issuing certification.

27) States that the DOJ or other state agency that issued certification shall revoke certification for a software controls process if, at any time, it fails to meet the performance standards for certification. In that case, the DOJ or other state agency that issued certification shall notify relevant printer manufacturers with printer models known to use that software controls process that a software controls process they have deployed is no longer certified, and the manufacturer shall have a reasonable period, not less than three months, to update their model and resubmit their attestation of use of certified blocking technology, as described.

28) Requires on or before March 1, 2028, the DOJ or other relevant state agency shall publish written guidance on performance standards for manufacturers of three-dimensional printers on how to equip printers with firearm blocking technology. This guidance shall include all of the following:

a) Performance standards for equipping three-dimensional printers with a certified firearm blueprint detection algorithm and where to find updated lists of certified firearm blueprint detection algorithms published by the department.

b) Performance standards for equipping three-dimensional printers with a certified software controls process and where to find updated lists of certified software controls processes published by the department.

c) Performance standards on how to test functionality of the certified firearm blueprint detection algorithm and software controls process to meet a specified degree of reliability in blocking the printing of firearms or illegal firearm parts.

29) Establishes that the performance standards described above shall be made publicly available on the internet website of the department or the state agency that prepared the written guidance on performance standards described in this section.

30) Requires on or before July 1, 2028, any business that produces or manufactures three-dimensional printers for sale or transfer in California shall submit to the DOJ an attestation form for each make and model of printer they intend to make available for sale or transfer in California.

31) States that the self-attestation shall include all of the following information:

a) The make and model of the three-dimensional printer.

b) Confirmation that the manufacturer has equipped that make and model with a certified firearm blueprint detection algorithm and which certified firearm blueprint detection algorithm from the list published, as specified.

c) Confirmation that the manufacturer has equipped that make and model with a certified software controls process and which certified software controls process from the list published.

d) Confirmation of testing the functionality of the certified firearm blueprint detection algorithm and software controls process once installed according to performance standards issued by the DOJ, as specified.

32) States that if the self-attestation form is incomplete or contains information indicating the make and model of printer identified may not be effectively equipped with firearm blocking technology, the Attorney General has authority to investigate and inspect the submission, including, but not limited to, requesting sample models from the manufacturer to verify the attestation of compliance.

33) States that any make and model of three-dimensional printer actively under investigation and inspection shall be identified as having an incomplete attestation on the list, as described.

34) Requires on or before July 1, 2028, the DOJ shall begin accepting applications from three-dimensional printer manufacturers for a voluntary verification of their self-attestation, allowing the DOJ to inspect and confirm that a specific make and model of printer complies with the performance standards, as described.

35) Provides that if the DOJ verifies a printer make and model is properly equipped with firearm blocking technology, the DOJ shall issue to the manufacturer a written notice of compliance verification for the make and model, which shall constitute compliance with specified laws.

36) Establishes that no manufacturer of a printer for which a written notice of compliance verification has been issued shall be subject to defined civil actions. This does not apply to a manufacturer who received notice from the DOJ that the previously verified model contained a firearms blueprint detection algorithm for which certification was revoked pursuant or a software controls process for which certification was revoked, as defined, until the manufacturer updates their model and resubmits the model for an updated compliance verification.

37) Requires that on or before September 1, 2028, the DOJ shall publish a list of all the makes and models of three-dimensional printers whose manufacturers have submitted complete self-attestations, any makes and models of three-dimensional printers that have an incomplete attestation on file, any makes and models that have submitted for and received the voluntary compliance verification described, and any makes and models that have a pending submission for voluntary compliance verification, as specified.

38) Specifies that the lists shall be updated no less frequently than on a quarterly basis and made accessible on the DOJ's internet website. Retailers or distributors of three-dimensional printers shall consult the lists posted on the department's internet website to ensure their inventory for sales in California consists of three-dimensional printers in compliance with this title.

39) Provides that it shall be an affirmative defense to any action against a retailer, distributor, importer, wholesaler, or other individual transferor of a three-dimensional printer for an alleged, specified violation that the retailer, distributor, or other individual transferor only sold or transferred the three-dimensional printer after verifying that the make and model was listed by the DOJ on the published list described, and not designated as having an incomplete attestation.

40) States that any business that produces or manufactures three-dimensional printers for sale or transfer in California shall take both of the following steps:

    a) Before any three-dimensional printer is offered, sold, transferred, or distributed to any person or business in California, the manufacturer shall equip the three-dimensional printer with certified firearm blocking technology, as described.

    b) Before any three-dimensional printer is offered, sold, transferred, or distributed to any person or business in California, the manufacturer shall submit a self-attestation of installation of firearm blocking technology to the department, as described.

41) States that any business that sells, offers to sell, distributes, or transfers for consideration a three-dimensional printer in California shall consult the list published by the DOJ, as described.

42) Provides that it shall be unlawful to sell or transfer for consideration a three-dimensional printer in California that does not meet both of the following requirements:

a) The three-dimensional printer shall be equipped with firearm blocking technology.

b) The three-dimensional printer shall be listed by the DOJ on the published list specified as having a complete attestation on file, having received a certificate of compliance verification, or having a pending application for a certificate of compliance verification.

43) Establishes that this section shall not apply to the following products:

a) Printers manufactured for and sold exclusively to a state-licensed firearms manufacturer, as defined.

b) Printers manufactured for and sold exclusively to the State of California or law enforcement agencies of the United States for the manufacturing of firearms for law enforcement or military purposes.

c) Printers manufactured for and sold exclusively to aerospace, biomedical, automotive, or chemical or mechanical engineering companies or government contractors that are not also sold on the consumer retail market.

44) Provides that a civil action may be brought against a person who does either of the following:

a) Sells, offers to sell, or transfers for consideration a three-dimensional printer in California that is not equipped with firearm blocking technology.

i) It shall be an affirmative defense to any action against a retailer, distributor, wholesaler, importer, or other individual transferor of a three-dimensional printer for an alleged violation of this section that the retailer, distributor, wholesaler, importer, or other individual transferor only sold or transferred the three-dimensional printer after verifying that the make and model was listed by the department on the published list described in this section, and not designated as having an incomplete attestation.

ii) It shall be an affirmative defense to any action for violation of this paragraph that the department issued a written notice of compliance verification for the make and model of printer at issue.

b) Knowingly files an attestation containing false information. The filing of a civil action under this section shall not preclude potential criminal prosecution for perjury, as defined.

45) States that a person who has suffered harm in California as a result of a violation of this section may bring an action in a court of competent jurisdiction to establish that a person has violated this section, and may seek compensatory damages as well as injunctive relief sufficient to prevent the person and any other defendant from further violating the law.

46) Provides that the Attorney General, a county counsel, or a city attorney may bring an action in a court of competent jurisdiction to establish that a person has violated this section, and may seek a civil penalty not to exceed $25,000 for each violation, as well as injunctive relief sufficient to prevent the person and any other defendant from further violating the law.

47) States that a prevailing plaintiff shall be entitled to recover reasonable attorney's fees and costs.

48) States that the remedies provided by this section are cumulative and shall not be construed as restricting any other rights, causes of action, claims, or defenses available under any other law.

49) States that the DOJ may promulgate regulations and develop forms and publications necessary to implement this title.

50) Provides that it is unlawful to knowingly disable, deactivate, uninstall, or otherwise circumvent any firearm blocking technology installed in a three-dimensional printer with intent to manufacture firearms or to distribute, sell, or transfer for consideration in California one or more modified versions of a three-dimensional printer identified on the DOJ's list of three-dimensional printers eligible for sale in California, as described. States that a violation of this section is a misdemeanor and does not preclude prosecution under any other law providing for a greater penalty.

51) Defines "department" as the Department of Justice.

52) Defines "firearm" as a device, designed to be used as a weapon, from which is expelled through a barrel, a projectile by the force of an explosion or other form of combustion.

53) Defines "firearm blocking technology" as hardware, firmware, or other integrated technological measures capable of ensuring a three-dimensional printer will not proceed to any print job unless the underlying three-dimensional printing file has been evaluated by a firearms blueprints detection algorithm and determined not to be a printing file that would produce a firearm or illegal firearm parts.

54) Defines "firearm blueprint detection algorithm" as a software service that evaluates three-dimensional printing files, whether in the form of stereolithography (STL) files or other computer-aided design files or geometric code, to determine if the files can be used to program a three-dimensional printer to produce a firearm or illegal firearm parts, and flag any such files to prevent their use to manufacture a firearm or illegal firearm parts.

55) Defines "firearm precursor part" as any forging, casting, printing, extrusion, machined body or similar article that has reached a stage in manufacture where it may readily be completed, assembled or converted to be used as the frame or receiver of a functional firearm, or that is marketed or sold to the public to become or be used as the frame or receiver of a functional firearm once completed, assembled or converted.

56) Defines "firmware design" as integration of a firearms blueprint detection algorithm directly into a three-dimensional printer's firmware, such that any geometric code received by the printer must be evaluated by the algorithm before the printer will proceed to print, and such that the printer will reject print jobs identified by the algorithm because they would direct the printer to print firearms or illegal firearm parts.

57) Defines "illegal firearm parts" as a firearm precursor part and any part designed and intended for use in converting a semiautomatic weapon into a machine gun, including, but not limited to, a pistol convertor.

58) Defines "integrated pre-print software design" as a limitation of a three-dimensional printer's operation to accept geometric code for printing exclusively from a single slicer or other preprint software, which may be the manufacturer's proprietary software, and integration of a firearms blueprint detection algorithm into that preprint software, such that any STL file or other computer-aided design file must be evaluated by the algorithm before the software will proceed to produce geometric code, and such that the software will not produce geometric code for files that are identified by the algorithm because they would direct the printer to print firearms or illegal firearm parts.

59) Defines "pistol convertor" as any device or instrument that when installed in or attached to the rear of the slide of a semiautomatic pistol, replaces the backplate, and interferes with the trigger mechanism and thereby enables the pistol to shoot automatically more than one shot by a single function of the trigger. A pistol converter includes, but is not limited to, a pistol converter manufactured using a three-dimensional printer, as defined.

60) Defines "software controls process" means a system designed to stop a three-dimensional printer from initiating any print job unless the underlying three-dimensional printing file has been evaluated by a firearms blueprints detection algorithm and determined not to be a printing file that would produce a firearm or illegal firearm parts.

61) Defines "three-dimensional printer" as a computer-aided manufacturing device capable of producing a three-dimensional object from a three-dimensional digital model through an additive manufacturing process that involves the layering of two-dimensional cross sections formed of a resin or similar material that are fused together to form a three-dimensional object.

EXISTING LAW:

1) Authorizes a civil action to be brought against a person who knowingly distributes or causes to be distributed, by any means including the internet, any digital firearm manufacturing code to any other person in this state who is not a federally licensed firearms manufacturer, member of the Armed Forces of the United States or the National Guard, while on duty and acting within the scope and course of employment, or any law enforcement agency or forensic laboratory. (Civ. Code, § 3273.61, subd. (a).)

2) Authorizes the Attorney General, county counsel, or city attorney to bring an action in any court of competent jurisdiction to establish that a person has violated specified laws and may seek a civil penalty not to exceed twenty-five thousand dollars ($25,000) for each violation, as well as injunctive relief sufficient to prevent the person and any other defendant from further violating the law. (Civ. Code, § 3273.61, subd. (c)(2).)

3) Establishes that a person shall not sell, offer to sell, transfer, advertise, or market a CNC milling machine or three-dimensional printer in a manner that knowingly or recklessly causes another person in this state to engage in prohibited conduct, or in a manner that otherwise

knowingly or recklessly aids, abets, promotes, or facilitates prohibited conduct. (Civ. Code, § 3273.62, subd. (a).)

4) Provides that there shall be a rebuttable presumption that a person is engaged in defined prohibited conduct if both of the following are true:

    a) The person offers to sell, advertises, or markets a CNC milling machine or three-dimensional printer in a manner that, under the totality of the circumstances, is targeted at purchasers seeking to manufacture firearms or that otherwise affirmatively promotes the machine or printer's utility in manufacturing firearms, regardless of whether the machine or printer is otherwise described or classified as having any other capabilities.

    b) The person sells or transfers the CNC milling machine or three-dimensional printer without verifying that a purchaser or transferee in this state is a federally licensed firearms manufacturer or not otherwise prohibited from purchasing or using the machine or printer to manufacture firearms. (Civ. Code, § 3273.62, subd. (b).)

5) States that it is unlawful to knowingly, willfully, or recklessly cause another person to engage in the unlawful manufacture of firearms, or to knowingly, willfully, or recklessly aid, abet, promote, or facilitate the unlawful manufacture of firearms. (Civ. Code, § 3273.625, subd. (a).)

6) Defines the "unlawful manufacture of firearms" to include any of the following:

    a) The manufacture of a firearm by a minor, or by a person who is prohibited from owning or possessing firearms under California law.

    b) The manufacture of four or more firearms within the state in the same calendar year by an individual who is not licensed to manufacture firearms.

    c) The manufacture of any firearm using a three-dimensional printer or computer numerical control (CNC) milling machine by an individual who is not licensed to manufacture firearms.

    d) The manufacture of a firearm by a person who is not a federally licensed firearms manufacturer, for the purpose of selling or transferring ownership of that firearm to another person who is not a federally licensed firearms manufacturer.

    e) The manufacture of a firearm for the purpose of selling, loaning, or transferring the firearm to another person, with the intent to complete the sale, loan, or transfer without a required background check on the transferee initiated by a licensed firearms dealer.

    f) The manufacture of defined arms. (Civ. Code, § 3273.625, subd. (b).)

7) Defines "firearm accessory" as an attachment or device designed or adapted to be inserted into, affixed onto, or used in conjunction with a firearm that is designed, intended, or functions to increase a firearm's rate of fire or to increase the speed at which a person may reload a firearm or replace the magazine, or any other attachment or device described that may render a firearm an assault weapon when inserted into, affixed onto, or used in

conjunction with a firearm. The term firearm accessory also includes any other device, tool, kit, part, or parts set that is clearly designed and intended for use in manufacturing firearms. (Civ. Code, § 3273.50, subd. (c).)

8) Defines "firearm-related product" as a firearm, ammunition, a firearm precursor part, a firearm component, firearm manufacturing machine, and a firearm accessory that meets any of the following conditions:

   a) The item is sold, made, or distributed in California.

   b) The item is intended to be sold or distributed in California.

   c) The item is or was possessed in California and it was reasonably foreseeable that the item would be possessed in California. (Civ. Code, § 3273.50, subd. (d).)

9) Defines "firearm manufacturing machine" as a three-dimensional printer, as defined, a computer numerical control (CNC) milling machine, or a similar machine, that is marketed or sold as or is reasonably designed or intended to be used to manufacture or produce firearms, firearm components, or firearm accessories. (Civ. Code, § 372.50, subd. (g).)

10) Defines "digital firearm manufacturing code" as any digital instructions in the form of computer-aided design files, computer-aided manufacturing files, or other code or instructions stored and displayed in electronic format as a digital model that may be used to program a CNC milling machine, a three-dimensional printer, or a similar machine, to manufacture or produce any of the following:

   a) A firearm, including a completed frame or receiver or a firearm precursor part.

   b) A large-capacity magazine.

   c) A large-capacity magazine conversion kit.

   d) A machinegun.

   e) A multiburst trigger activator.

   f) A silencer.

   g) A firearm accessory.

   h) A firearm barrel. (Civ. Code, § 3273.60, subd. (a).)

11) Defines "federally licensed firearms manufacturer" as a person, firm, corporation, or other entity that holds a valid license to manufacture firearms issued pursuant to defined federal law and regulations. (Civ. Code, § 3273.60, subd. (b).)

FISCAL EFFECT: Unknown

COMMENTS:

1) **Author's Statement**: According to the author, "California has set a standard for the country in creating commonsense gun regulations and gun violence prevention work. AB 2047 continues this work by requiring that all three-dimensional printers sold in California are equipped with firearm blocking features to prohibit the printing of dangerous gun parts. Specifically, it requires that they have a firearm detection algorithm and software controls that identifies files that would produce guns and illegal gun parts and block such printing requests.

   "There is alarming data showing that 3D-printed firearms have become an escalating public safety threat. A report from Everytown for Gun Safety shows that recoveries of 3D-printed guns increased by 1,000 percent between 2020 and 2024. Just last month, Santa Rosa police seized three 3D printers along with 167 firearms- including 150 guns with obliterated serial numbers- in an illegal ghost gun manufacturing operation that left weapons easily accessible to a young child.

   "As technology evolves, it's important that consumer protections change with it to ensure the safety of our communities."

2) **Effect of the Bill**: AB 2047 is a comprehensive bill that intends to slow or proscribe the proliferation of firearms software used with three-dimensional printers (3DP) to produce unserialized firearms, otherwise known as ghost guns.

   This bill would require various actions by the DOJ, or another designated agency, to address the spread and use of firearms software. AB 2047 would require, among other things, DOJ or another agency to: 1) engage in an investigation of known firearm blueprint design files and existing firearm blueprint detection algorithms, 2) publish written guidance on performance standards for persons or entities engaged in the creation of firearm blueprint detection algorithms to be certified for use by 3DP manufacturers, 3) prepare written guidance on performance standards to accept applications for certification of firearms blueprint detection algorithms and begin issuing certifications of algorithms that meet or exceed defined performance standards, and 4) publish written guidance on how to 3DP's with firearm blocking technology.

   AB 2047 also requires: 1) any business that produces or manufactures 3DP's for sale or transfer in California to submit to DOJ an attestation for each make and model of printer they intend to make available for sale or transfer in California, 2) DOJ to publish a list of all the makes and models of 3DP's whose manufacturers have submitted complete self-attestations, and 3) prohibitions on the sale or transfer of 3DP's that are not equipped with firearm blocking technology, except as specified. This bill would also make it a misdemeanor to knowingly disable, deactivate, uninstall, or otherwise circumvent any firearm blocking technology installed in a 3DP with intent to manufacture firearms or to distribute, sell, or transfer for consideration in California one or more modified versions of 3DP's identified on DOJ's list of 3DP's eligible for sale in California.

   There is a possible, minor drafting concern with how this provision is constructed the author may wish to consider reworking. Section 29187(a) of the bill reads, "It is unlawful to knowingly disable, deactivate, uninstall, or otherwise circumvent any firearm blocking technology installed in a [3DP] with intent to manufacture firearms or to distribute, sell, or

transfer for consideration in California one or more modified versions of a [3DP] . . . .” It is unclear whether the state of mind word, “knowingly,” is intended to apply to the prohibited conduct after the word “or.” The prohibited conduct after “or” is “distribute, sell, or transfer for consideration in California one or more modified versions of a 3DP[.]” Due to the way this section is constructed it is unclear whether “knowingly” would apply to, for example, distribution of an unlawfully modified 3DP in California. Additionally, the lack of parallel language that reads, “with the intent to manufacture firearms” after the “or” could similarly lead to unintentional applications of the statute. Without requiring a person to “knowingly” distribute, sell, or transfer a modified 3DP, combined with the lack of matching language stating, “with the intent to manufacture firearms,” an individual who intentionally or knowingly disabled firearm blocking technology to print ghost guns would be subject to the same penalty as a person who unknowingly transferred a modified 3DP to a recycler willing to pay for an old 3D printer to scrap it for sellable parts.

Additionally, public safety concerns have quickly developed as the manufacture of untraceable firearms has moved beyond professionally licensed manufacturers and responsible, law-abiding hobbyists into the production of ghost guns for use in crime. The ongoing battle to reduce or eliminate ghost guns has proven difficult. A recent report found a dramatic increase in ghost guns recovered in recent years.[1] The report noted that from 2019-2021, there was a 592% increase in the number of ghost guns recovered as a result of criminal activity, which represented 70% of the entire increase in guns recovered during the same period.[2] From 2021-23, however, there was a 23% decrease in ghost gun recoveries.[3] The reduction in ghost gun recoveries accounted for 73% of the overall reduction in crime guns recovered from 2021-23.[4] While this could be an early sign of regulatory efficacy, a concerning number of ghost guns continue showing up in crime.[5]

By placing additional regulations around 3DP and firearms software manufacturers, AB 2047 could help continue the progress California has made in reducing the incidence of ghost guns used in crime.

3) **The *Bruen* Analysis:** AB 2047 may interfere with some protected Second Amendment conduct, though the current constitutional test suggests a Second Amendment violation is unlikely with this bill.

To be subject to Second Amendment scrutiny, a law must first infringe on plain text Second Amendment conduct. (*New York State Rifle & Pistol Association, Inc. v. Bruen,* (2022) 597 U.S. 1, 17.) Justifying a law or regulation that purports to place restrictions on protected Second Amendment conduct requires the government to demonstrate the law is “consistent with the nation’s historical tradition of firearms regulation.” (*Id.* at p. 24.) A firearms regulation is constitutional if the government establishes the proposed law is “relevantly similar” to historical laws, regulations, and traditions. (*Id.* at p. 29.)

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[1] *California’s Fight Against the Ghost Gun Crisis: Progress and New Challenges*, California Department of Justice (Oct. 2024) <https://oag.ca.gov/system/files/media/ogvp-report-ghost-guns.pdf> [as of Mar. 18, 2026].
[2] *Ibid.*
[3] *Ibid.*
[4] *Ibid.*
[5] *Ibid.*

AB 2047 arguably does not infringe on plain text Second Amendment conduct. The Court has provided meaningful room to continue regulating the commercial sale of arms since *Heller*. (See, e.g., *District of Columbia v. Heller* (2008) 554 U.S. 626-27, *McDonald v. City of Chicago* (2010) 561 U.S. 742, 787.) This bill seems to be primarily aimed at regulating commercial conduct. AB 2047 makes room for an individual to be charged with a misdemeanor for deactivating firearm blocking software, but this course of conduct must be evaluated using the plain text of the Second Amendment and it seems strained to suggest that an individual has a plain text constitutional right to possess software to use with 3DP's. Even if we assume, as many courts have done in cases involving a Second Amendment challenge that an individual has a plain text Second Amendment right to possess software to manufacture firearms, and that right is impacted by AB 2047, it seems unlikely a law prohibiting only one means of unlicensed firearms manufacture would be struck down under *Bruen*.

American history does not appear to have much to offer in the way of ghost guns. One of the reasons for this could be the process for manufacturing and acquiring ghost guns significantly differs from processes used historically to manufacture and acquire firearms.[6] The firearms manufacturing process can be analogized in principle, but there is no clear indication that the Second Amendment encompasses an individual right to *manufacture* firearms. It is also not clear from the case law whether courts would consider 3DP manufactured firearms as sufficiently analogous to the dangerous or unusual weapons prohibited during the key historical timeframes, particularly when personal historical self-manufacture was not necessarily uncommon.[7] The greater prevalence of unregulated manufacture likely will produce less reliable firearms, which may prove unconstitutionally dangerous. Ultimately, the nexus between the software prohibitions and 3DP manufacturer restrictions relative to individual Second Amendment rights may be too attenuated to implicate the Second Amendment.

The Court to this point appears not to have found Second Amendment concerns with regulating ghost guns. AB 2047 only indirectly touches ghost guns, instead focusing much of its regulatory aim at software. Given the above, it appears unlikely AB 2047 draws fatal Second Amendment scrutiny.

4) **The Dormant Commerce Clause:** This bill would impact certain out-of-state businesses by establishing requirements for 3DP manufacturers and sellers of certain 3DP software. Because this would create a disadvantage for certain out-of-state commerce, the bill's constitutionality under the Constitution's Commerce Clause may be an issue.

   The dormant Commerce Clause is a constitutional rule read into the Commerce Clause. The Supreme Court has interpreted the Commerce Clause to infer a constitutional rule that state laws putting unreasonable restrictions on interstate commerce, even in areas where Congress has not regulated, are unconstitutional. (*Nat'l Pork Producers Council v. Ross* (2023) 598 U.S. 356, 357.) It is possible for a state law to discriminate against interstate commerce

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[6] Kopel & Greenlee, *The History on Bans of Types of Arms Before 1900* (2024) University of Denver Journal of Legislation <https://scholarship.law.nd.edu/jleg/vol50/iss2/3/> [as of Mar. 18, 2026].
[7] Greenlee, J. *The American Tradition of Self-Made Arms* (2023) 54 St. Mary's University Law Journal <https://commons.stmarytx.edu/cgi/viewcontent.cgi?article=2119&context=thestmaryslawjournal> [as of Mar. 16, 2026].

"either on its face or in practical effect." (*Maine v. Taylor* (1986) 477 U.S. 131, 138.) If a showing is made that the law discriminates against interstate commerce, the proponents must demonstrate that the statute serves a legitimate local purpose and that purpose cannot be equally served by available nondiscriminatory means. (*Ibid.*)

On its face, it is unclear whether AB 2047 unconstitutionally discriminates against interstate commerce. The purpose of the bill is to enhance public safety for Californians by placing prohibitions on firearms software for 3DP's. The author expects this will enhance public safety by reducing the proliferation of ghost guns, which could then reduce the number of those guns used in crimes. AB 2047 would produce some amount of discrimination against interstate commerce because out-of-state retailers of 3DP's and firearms software no longer would be able to sell those products to California consumers. Whether this law rises to the level of an "undue" burden, however, is debatable, since the law provides a remedy for 3DP manufacturers to sell to Californians by installing and attesting to their products being incapable of operating the prohibited software.

The key questions here may then be whether AB 2047's purpose is legitimate, and if that purpose otherwise can be accomplished by available, nondiscriminatory means. The nature and legitimacy of the bill appear sound. Public safety concerns are a widely accepted and foundational purpose for state regulation. Ghost guns are a documented public safety concern. Whether there are available, nondiscriminatory means to achieve this objective likely presents the greatest constitutional concern for this bill under the dormant Commerce Clause. Certainly, California can and does regulate numerous acts related to ghost guns and while we have seen some improvement in reduced recovery rates of ghost guns in crime, the issue stubbornly persists in communities across the State. While a dormant Commerce Clause concern is possible, it seems unlikely to be fatal to the bill.

5) **Argument in Support**: According to *Brady United Against Gun Violence*, "The Firearm Printing Prevention Act, which will combat the emerging crisis of 3D printed firearms by requiring that every 3D printer sold in our state comes with technology that will block 3D print jobs for firearms and illegal firearm parts that turn pistols into machine guns (machinegun-conversion devices, commonly called "switches" or "MCDs").

"Rapid evolution in the printing industry in recent years has radically increased the threat from 3D printed firearms. Over the past decade, 3D printers have improved in capabilities, dropped in price, and exploded in popularity. Entry-level models now cost as little as $250 and are capable of printing the critical components of firearms. Anyone with internet access can find thousands of digital instructional files for guns and illegal gun parts online.

"California's status as the state with the strongest gun laws makes 3D printing all the more appealing for people prohibited from owning firearms. In 2025, domestic abusers, teenagers, and large-scale criminal suppliers were found manufacturing 3D-printed firearms in California. Just in February 2026:

- Law enforcement in Santa Rosa seized over 165 guns and 3D printers from a 22-year-old ghost guns manufacturer.
- Victor Valley sheriffs arrested two men with a 3D-printed assault rifle, over 130 Polymer80 jigs (ghost gun making tools), 3D printer materials and a 3D printing guide for different firearms.

- A San Jose teen was caught with 27 finished or near-finished 3D-printed firearms, including DIY machine guns, and two 3D printers.

"3D-printed firearms undermine our state's entire gun safety apparatus. Skip-the-background-check gun printing upends the entire system of gun safety laws - circumventing California's laws that seek to ensure guns don't end up in the hands of people with dangerous histories and that extremely dangerous weapons don't end up in our state.

"The good news is: the technology already exists to equip printers to identify and block these dangerous print jobs—this new legislation will simply ensure that printer manufacturers actually deploy these solutions and stop the spread of DIY firearms before it accelerates any further. The Firearm Printing Prevention Act is an upstream solution that builds on California's legacy of combating emerging firearm threats, like the first wave of ghost guns and DIY machine guns.

"California has taken early steps to prohibit personal manufacturing of firearms with a 3D printer and created pathways to civil liability for people who aid and abet illegal 3D firearm manufacturing. While those recent laws have focused on prohibition and deterrence, AB 2047 provides an opportunity for prevention using new technology to stop 3D gun printing at its source. We can't fully address this emerging threat to our foundational gun laws and public safety without this intervention at the manufacturing stage.

"We can help prevent illegal guns flowing into California communities and thwart gun traffickers trying to flout California's strong gun safety laws by ensuring that all 3D printers sold on the California household consumer retail market have firearm printing blocking technology installed. For these reasons, we strongly support AB 2047 and we urge the legislature to stand with us in combatting the emerging threat of 3D-printed firearms."

6) **Argument in Opposition**: According to the *National Rifle Association Institute for Legislative Action*, "On the outset, the NRA has consistently opposed efforts to ban or restrict the use of 3D printing technology as it relates to the lawful exercise of the right to keep and bear arms. AB 2047 represents a significant expansion of such efforts, establishing an unprecedented regulatory regime that conditions the sale and use of 3D printers on state-approved software designed to detect and block firearm-related digital files.

"As a matter of policy, this approach raises significant constitutional and practical concerns. The bill implicates the Second Amendment by placing prospective restrictions on self-manufacture of firearms. By conditioning access to commonly available tools on government-imposed technology, the bill further burdens and prohibits the ability of law-abiding individuals to exercise a constitutional right.

"AB 2047 also raises serious First Amendment concerns. By mandating the use of state-approved filtering mechanisms to monitor and restrict digital files and code, the bill extends regulation into areas of protected expression. Requiring manufacturers to embed such controls, and penalizing their circumvention, introduces a government directed role in regulating the dissemination and use of information.

"In addition, the bill's reliance on evolving detection standards, that are not required to achieve complete accuracy, creates a substantial risk of overbreadth, potentially restricting

lawful and unrelated digital content. At the same time, individuals' intent on unlawful activity remain unlikely to be deterred by software-based restrictions that can be modified or circumvented.

"For those reasons, we respectably encourage that the Committee reject Assembly Bill 2047."

7) **Related Legislation**:

a) AB 1589 (Chen) would exempt from the prohibition on possessing silencers specified level I reserve peace officers. AB 1589 is pending hearing in the Assembly Appropriations Committee.

b) AB 1615 (Nguyen) would authorize a peace officer employed by a county probation department and using an unsafe handgun as a service weapon to satisfy the above-described training requirement by completion of the firearm portion of a training course prescribed by POST and who qualifies with the handgun, as specified, at least every 3 months. AB 1615 is pending hearing in the Assembly Appropriations Committee.

c) SB 1220 (Hurtado) would prohibit a person who is convicted on or after January 1, 2027, of defined laws, from owning, purchasing, receiving, or having in their possession or under their custody or control any firearm within 10 years of the conviction. SB 1220 is pending hearing in the Senate Public Safety Committee.

8) **Prior Legislation**:

a) AB 1127 (Gabriel), Chapter 572, Statutes of 2025, prohibited a licensed firearms dealer from selling, offer for sale, exchange, give, transfer, or deliver any semiautomatic convertible pistol, except as specified.

b) AB 1263 (Gipson), Chapter 636, Statutes of 2025, prohibited a person from knowingly or willfully causing another person to engage in the unlawful manufacture of firearms or knowingly or willfully aiding, abetting, prompting, or facilitating the unlawful manufacture of firearms, including the manufacture of assault weapons or .50 BMG rifles or the manufacture of any firearm using a 3DP printer or CNC milling machine, as specified.

c) AB 97 (Rodriguez), Chapter 233, Statutes of 2023, required the DOJ to collect and report specified information, including, among other things, the number and disposition of arrests made for violations of manufacturing a firearm or assembling a firearm from unserialized components.

d) AB 1089 (Gipson), Chapter 243, Statutes of 2023, required anybody who uses a 3DP or CNC milling machine to manufacture a firearm to be a state-licensed manufacturer.

e) AB 1420 (Berman), Chapter 245, Statutes of 2023, authorized the DOJ to conduct inspections and assess a fine for any violation of provisions relating to regulation of those licenses, for violations of specified provisions regulating the sale of secondhand firearms.

f) AB 1594 (Ting), Chapter 98, Statutes of 2022, prohibited a firearm industry member from manufacturing, marketing, importing, offering for wholesale sale, or offering for retail sale a firearm-related product that is abnormally dangerous and likely to create an unreasonable risk of harm to public health and safety in California

g) AB 1621 (Gipson), Chapter 76, Statutes of 2022, redefined a firearm precursor part as any forging, casting, printing, extrusion, machined body or similar article that has reached a stage in manufacture where it may readily be completed, assembled or converted to be used as the frame or receiver of a functional firearm, or that is marketed or sold to the public to become or be used as the frame or receiver of a functional firearm once completed, assembled or converted.

h) AB 2156 (Wicks), Chapter 142, Statutes of 2022, expanded the firearms manufacturing prohibition to prohibit any person, regardless of federal licensure, from manufacturing firearms in the state without being licensed by the state.

REGISTERED SUPPORT / OPPOSITION:

Support
Everytown for Gun Safety Action Fund (Sponsor)
Moms Demand Action for Gun Sense in America (Sponsor)
Students Demand Action for Gun Sense in America (Sponsor)
Beverly Hills High School Students Demand Action
Brady California
Brady Campaign
CA Moms Demand Action
California Moms Demand Action
California Police Chiefs Association
Cft – a Union of Educators & Classified Professionals, Aft, Afl-cio
Chapman University Students Demand Action
Consumer Protection Policy Center/usd School of Law
Former City Attorney Mike Feuer, City of Los Angeles
Giffords
Newtown Action Alliance
San Diego City Attorney's Office
Students Demand Action At UC Davis
Ucla Students Demand Action
Youth Alive!
57 Private Individuals

Oppose
ACLU California Action
California Rifle and Pistol Association, INC.
Gun Owners of California, INC.
National Rifle Association - Institute for Legislative Action
4 Private Individuals

Analysis Prepared by: Dustin Weber / PUB. S. / (916) 319-3744