

AMENDED IN SENATE JUNE 15, 2026

AMENDED IN ASSEMBLY MAY 18, 2026

CALIFORNIA LEGISLATURE—2025–26 REGULAR SESSION

ASSEMBLY BILL

No. 2047

Introduced by Assembly Member Bauer-Kahan
(~~Coauthor: Assembly Member Patel~~ Members Patel,
Rogers, and Stefani)
(Coauthor: Senator Grayson)

February 17, 2026

An act to add Title 21.1 (commencing with Section 3273.631) to Part 4 of Division 3 of the Civil Code, and to add Section 29187 to the Penal Code, relating to firearms.

LEGISLATIVE COUNSEL’S DIGEST

AB 2047, as amended, Bauer-Kahan. Firearms: 3-dimensional printing blocking technology.

Existing law makes it a crime to knowingly or willfully cause 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 3-dimensional printer, as specified.

~~This bill would require the Department of Justice or other relevant state agency to engage in an investigation of known firearm blueprint design files and existing firearm blueprint detection algorithms, as defined. The~~

~~This~~ bill would require, on or before ~~January~~ September 1, 2028, the department ~~or other relevant state agency~~ to publish written guidance

on performance standards for ~~persons or entities engaged in the creation of~~ firearm blueprint detection algorithm for use by 3-dimensional printer manufacturers, as specified. ~~The bill would, on or before March 1, 2028, require the department or other relevant state agency to publish written guidance on how to equip 3-dimensional printers with firearm blocking technology, as defined, and would require the performance standards to be publicly available on the department or other relevant state agency's internet website.~~

This bill would require, on or before ~~July 1, 2028~~, *March 1, 2029*, any business that produces or manufactures 3-dimensional printers for sale or transfer in California to submit to the department an attestation for each make and model of printer they intend to make available for sale or transfer in California, confirming, among other things, that the manufacturer has equipped that make and model with a firearm blueprint detection algorithm. The bill would require, on or before ~~September 1, 2028~~, *June 1, 2029*, the department to publish a list of all the makes and models of 3-dimensional printers whose manufacturers have submitted complete self-attestations and would require the department to update the list no less frequently than on a quarterly basis and to make the list available on the department's internet website. The bill, beginning on ~~March~~ *December* 1, 2029, would prohibit the sale or transfer of 3-dimensional printers that are not equipped with firearm blocking technology and that are not listed on the department's ~~list of manufacturers with a certificate of compliance verification~~, *list*, except as specified. The bill would authorize a civil action to be brought against a person who sells, offers to sell, or transfers a printer without the firearm blocking technology.

This bill would also make it a crime to knowingly disable, deactivate, uninstall, or otherwise circumvent any firearm blocking technology installed in a 3-dimensional printer with intent to manufacture firearms or to knowingly distribute, sell, or transfer for consideration in California one or more modified versions of a 3-dimensional printer identified on the Department of Justice's list of 3-dimensional printers eligible for sale in California, with the intent to facilitate the unlawful manufacture of firearms. By creating a new crime, this bill would impose a state-mandated local program.

This bill would make these provisions severable.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: yes.

The people of the State of California do enact as follows:

1 SECTION 1. Title 21.1 (commencing with Section 3273.631)
2 is added to Part 4 of Division 3 of the Civil Code, to read:

3
4 TITLE 21.1. FIREARM PRINTING PREVENTION ACT
5

6 3273.631. This title shall be known, and may be cited, as the
7 California Firearm Printing Prevention Act.

8 3273.632. As used in this title, the following definitions shall
9 apply:

10 (a) "Department" means the Department of Justice.

11 (b) "Firearm" has the same meaning as defined in subdivision
12 (a) of Section 16520 of the Penal Code.

13 (c) "Firearm blocking technology" means hardware, firmware,
14 or other integrated technological measures capable of ensuring a
15 three-dimensional printer will not proceed to any print job unless
16 the underlying three-dimensional printing file has been evaluated
17 by a firearms blueprints detection algorithm and determined not
18 to be a printing file that would produce a firearm or illegal firearm
19 parts.

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

27 (e) "Firearm precursor part" has the same meaning as defined
28 in Section 16531 of the Penal Code.

29 (f) "Firmware design" means integration of a firearms blueprint
30 detection algorithm directly into a three-dimensional printer's
31 firmware, such that any geometric code received by the printer
32 must be evaluated by the algorithm before the printer will proceed
33 to print, and such that the printer will reject print jobs identified

1 by the algorithm because they would direct the printer to print
2 firearms or illegal firearm parts.

3 (g) “Illegal firearm parts” means a firearm precursor part and
4 any part designed and intended for use in converting a
5 semiautomatic weapon into a machine gun, including, but not
6 limited to, a pistol convertor.

7 (h) “Integrated pre-print software design” means a limitation
8 of a three-dimensional printer’s operation to accept geometric code
9 for printing exclusively from a single slicer or other preprint
10 software, which may be the manufacturer’s proprietary software,
11 and integration of a firearms blueprint detection algorithm into
12 that preprint software, such that any STL file or other
13 computer-aided design file must be evaluated by the algorithm
14 before the software will proceed to produce geometric code, and
15 such that the software will not produce geometric code for files
16 that are identified by the algorithm because they would direct the
17 printer to print firearms or illegal firearm parts.

18 (i) “Pistol convertor” has the same meaning as defined in Section
19 17015 of the Penal Code.

20 (j) “Software controls process” means a system designed to stop
21 a three-dimensional printer from initiating any print job unless the
22 underlying three-dimensional printing file has been evaluated by
23 a firearms blueprints detection algorithm and determined not to
24 be a printing file that would produce a firearm or illegal firearm
25 parts.

26 (k) “Three-dimensional printer” has the same meaning as
27 subdivision (d) of Section 3273.60.

28 ~~3273.633.—(a) The department or other relevant state agency~~
29 ~~shall engage in an investigation of known firearm blueprint design~~
30 ~~files and existing firearm blueprint detection algorithms. The~~
31 ~~department or other relevant state agency may create, maintain,~~
32 ~~and regularly update a library of firearm blueprint files and illegal~~
33 ~~firearm parts blueprint files for use by firearm blueprint detection~~
34 ~~algorithm designers, or may coordinate with another government~~
35 ~~agency, academic consortium, or major research institution,~~
36 ~~including, but not limited to, a University of California academic~~
37 ~~department, to create, maintain, and regularly update a library with~~
38 ~~safeguards to prevent unauthorized access to, or misuse of, the~~
39 ~~library.~~

40 (b)

1 3273.633. (a) (1) On or before ~~January~~ *September 1, 2028*,
2 the department or other relevant state agency shall publish written
3 guidance on performance standards for ~~persons or entities engaged~~
4 ~~in the creation of~~ firearm blueprint detection algorithms for
5 three-dimensional printer manufacturer use in complying with
6 Sections ~~3273.636 and 3273.637~~. *3273.635 and 3272.636. The*
7 *department may adopt some or all of any set of performance*
8 *standards created by a nongovernmental entity, including, but not*
9 *limited to, an academic consortium or a global standard-setting*
10 *nonprofit, including, for example, ASTM International. To the*
11 *extent performance standards created by a nongovernmental entity*
12 *meet all the requirements set forth in this section, the department's*
13 *performance standards may provide that compliance with the*
14 *nongovernmental entity's standards shall constitute compliance*
15 *with this title.*

16 (2) The department or other relevant state agency may seek
17 input from relevant stakeholders and technical experts in the
18 process of preparing written guidance on performance standards
19 for firearm blueprint detection algorithms. Stakeholder input may
20 include, but is not limited to, identification of design files that
21 should be used to evaluate if an algorithm is reaching a
22 false-positive result that erroneously identifies the design file as
23 a firearm or illegal firearm part blueprint.

24 ~~(3)~~

25 (b) The performance standards shall require that firearm
26 blueprint detection algorithms have the capacity, with a high degree
27 of accuracy, to do all of the following:

28 ~~(A)~~

29 (1) Evaluate three-dimensional printing files, whether in the
30 form of STL files or other computer-aided design files or geometric
31 code.

32 ~~(B)~~

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

36 ~~(C)~~

37 (3) Flag any disallowed files for *print* rejection by a software
38 control process.

39 ~~(4)~~

1 (c) The performance standards shall require that, at a minimum,
2 firearm blueprint detection algorithms have the capacity to utilize
3 *information from* an inventory of disallowed firearm blueprint files
4 that have been commonly ~~downloaded or shared on public internet~~
5 forums to detect those files and modified versions of those files.

6 (1) *In order to meet the requirements of this subdivision, the*
7 *standards may require blueprint detection algorithms to receive*
8 *updated information from an inventory of firearm blueprint files*
9 *and illegal firearm parts blueprint files, including, but not limited*
10 *to, a library maintained by any state agency or out-of-state agency,*
11 *academic institution, or nongovernmental entity.*

12 (2) *An individual with authorized access to a file library*
13 *identified in paragraph (1) for the purpose of developing or vetting*
14 *firearm blocking technology shall be immune from liability for*
15 *violation of subdivision (a) of Section 3273.61 for reviewing or*
16 *testing files in the file library.*

17 (5)

18 ~~(d) The department or other relevant state agency shall set~~
19 *performance standards shall include standards for acceptable*
20 *false-positive and false-negative rates in detection algorithm*
21 *performance but shall not require that a firearm blueprint detection*
22 *algorithm produce a false-negative rate of zero corresponding to*
23 *perfect success rate at detecting disallowed files. files, using*
24 *standardized test methodologies and benchmark datasets where*
25 *applicable.*

26 (6)

27 ~~(e) The department or other relevant state agency preparing the~~
28 ~~written guidance on performance standards shall include~~
29 *performance standards requiring shall require that the firearm*
30 *blueprint detection algorithm have the capacity to implement*
31 *regular updates to the set of disallowed firearm files it has the*
32 *capacity to detect, to an extent and with a frequency to be*
33 ~~determined by the department that accounts for reasonably~~
34 *considers the rate of innovation for the design and availability of*
35 *new firearm blueprint files. files, consistent with evolving threat*
36 *landscapes, technology maturity, and operational feasibility.*

37 (7)

38 ~~(f) The department or other relevant state agency preparing the~~
39 ~~written guidance on performance standards shall include a process~~
40 *for periodically review reviewing emerging detection software*

1 techniques, including, but not limited to, advanced forms of image
2 recognition and pattern analysis as well as *and* volumetric search
3 functionality. If, at any time, the department or other relevant state
4 agency preparing the written guidance on performance standards
5 determines that a novel technique with a substantially higher degree
6 of performance is available to be utilized by algorithm developers,
7 the department or other relevant agency shall issue an update to
8 the written guidance on performance standards.

9 ~~(8) The department or other relevant state agency preparing the~~
10 ~~written guidance on performance standards may adopt some or all~~
11 ~~of any set of performance standards created by a nongovernmental~~
12 ~~entity, including, but not limited to, an academic consortium or a~~
13 ~~global standard-setting nonprofit.~~

14 ~~3273.634.—(a) The department or relevant state agency shall~~
15 ~~engage in an investigation of existing software controls processes~~
16 ~~available for use in three-dimensional printers for the purpose of~~
17 ~~preventing three-dimensional printing of firearms and illegal~~
18 ~~firearm parts.~~

19 ~~(b)~~
20 ~~3273.634. (a) (1) On or before January September 1, 2028,~~
21 ~~the department or relevant state agency shall publish written~~
22 ~~guidance on performance standards for persons or entities engaged~~
23 ~~in the creation of software controls processes for three-dimensional~~
24 ~~printer manufacturer use in complying with Sections 3273.636~~
25 ~~and 3273.637. 3273.635 and 3273.636. The department may adopt~~
26 ~~some or all of any set of performance standards created by a~~
27 ~~nongovernmental entity, including, but not limited to, an academic~~
28 ~~consortium or a global standard-setting nonprofit, including, for~~
29 ~~example, ASTM International. To the extent performance standards~~
30 ~~created by a nongovernmental entity meet all the requirements set~~
31 ~~forth in this section, the department's performance standards may~~
32 ~~provide that compliance with the nongovernmental entity's~~
33 ~~standards shall constitute compliance with this title.~~

34 ~~(2) The department or other relevant state agency preparing the~~
35 ~~written guidance on performance standards may seek input from~~
36 ~~relevant stakeholders and technical experts in the process of~~
37 ~~preparing written guidance on performance standards for software~~
38 ~~controls processes, including from persons who provide software,~~
39 ~~firmware, or other services integral to establishing software~~
40 ~~controls processes for three-dimensional printers.~~

1 ~~(3)~~

2 (b) The performance standards shall require that software
3 controls processes have the capacity, to a high degree of reliability,
4 ~~to effectively prevent a technically skilled user from evading~~
5 *substantially reduce the likelihood of foreseeable circumvention*
6 *attempts intended to evade* a firearms blueprint detection algorithm.

7 ~~(4)~~

8 (c) ~~The department~~ *performance standards* shall ~~set include~~
9 minimum standards on developer testing to confirm an acceptably
10 low level of evasion with identified design files for firearms and
11 illegal firearm parts, but shall not require that a software controls
12 process produces a perfect success rate at preventing a user from
13 evading a firearms blueprint detection algorithm.

14 ~~(5)~~

15 (d) The performance standards shall set out options for design
16 forms that may be used for a software controls process integration
17 into a three-dimensional printer, including *that the*
18 *standards-setting process shall consider* all of the following:

19 ~~(A)~~

20 (1) Firmware design.

21 ~~(B)~~

22 (2) Integrated preprint software design.

23 ~~(C)~~

24 (3) Any other form, including, but not limited to, handshake
25 authentication design or other design forms directed towards
26 compatibility with open-source architecture, ~~if the department first~~
27 ~~determines that~~ the software controls process *meets all performance*
28 *requirements of the standard and* is both of the following:

29 ~~(i)~~

30 (A) At least as effective in ensuring no print jobs can proceed
31 unless they are evaluated by a firearm blueprint detection algorithm
32 as the design forms described in ~~subparagraphs (A) and (B).~~
33 *paragraphs (1) and (2).*

34 ~~(ii)~~

35 (B) At least as resistant to being defeated by a technically skilled
36 user as the design forms described in ~~subparagraphs (A) and (B).~~
37 *paragraphs (1) and (2).*

38 ~~(6)~~

39 (e) ~~The written guidance~~ *performance standards* shall include
40 both of the following:

(A)

(1) 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)

(2) For integrated preprint software design, guidance for how vendors shall demonstrate that printers will accept print jobs exclusively ~~from a single preprint software~~ *through authorized and validated software systems* and will not accept print jobs from any other preprint software, including from a user *unauthorized software pathways, including attempts by users* seeking to evade a detection algorithm.

~~(7) The department or other relevant state agency preparing the written guidance on performance standards may adopt some or all of any set of performance standards created by a nongovernmental entity, including, but not limited to, an academic consortium or a global standard-setting nonprofit.~~

~~3273.635. (a) On or before March 1, 2028, the department 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 performance standards on how to test functionality of the 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.~~

~~(b) The performance standards described in subdivision (a) 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.~~

~~3273.636.~~

~~3273.635. (a) (1) On or before July 1, 2028; March 1, 2029,~~ any business that produces or manufactures three-dimensional printers for sale or transfer in California shall submit to the department an attestation form for each make and model of printer they intend to make available for sale or transfer in California.

(2) 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 firearm blueprint detection algorithm.

1 (C) Confirmation that the manufacturer has equipped that make
2 and model with a software controls process.

3 (D) Confirmation of testing the functionality of the firearm
4 ~~blueprint detection algorithm and software controls process~~
5 *blocking technology* once installed according to ~~performance~~
6 ~~standards issued by the department pursuant to Section 3273.635.~~
7 *paragraph (4).*

8 (3) If the self-attestation form is incomplete or contains
9 information indicating the make and model of printer identified
10 may not be effectively equipped with firearm blocking technology,
11 the Attorney General has authority to investigate and inspect the
12 submission, including, but not limited to, requesting sample models
13 from the manufacturer to verify the attestation of compliance and
14 requesting further information about the type of firearm blueprint
15 detection algorithm or software controls process used by the
16 manufacturer. Any make and model of three-dimensional printer
17 actively under investigation and inspection shall be identified as
18 having an incomplete attestation on the list described in subdivision
19 (b).

20 (4) *The self-attestation form may include instructions to*
21 *manufacturers of three-dimensional printers on how to test*
22 *functionality of firearm blocking technology, how to affirm that*
23 *testing has occurred on a specified percentage of printers for each*
24 *model, and how to submit the self-attestation form to the*
25 *department.*

26 (b) (1) On or before ~~September 1, 2028~~, *June 1, 2029*, the
27 department shall publish a list of all the makes and models of
28 three-dimensional printers whose manufacturers have submitted
29 complete self-attestations pursuant to subdivision (a) and any
30 makes and models of three-dimensional printers that have an
31 incomplete attestation on file.

32 (2) The lists shall be updated no less frequently than on a
33 quarterly basis and made accessible on the department's internet
34 website. Retailers or distributors of three-dimensional printers
35 shall consult the lists posted on the department's internet website
36 to ensure their inventory for sales in California consists of
37 three-dimensional printers in compliance with this title.

38 (3) It shall be an affirmative defense to any action against a
39 retailer, distributor, importer, wholesaler, or other individual
40 transferor of a three-dimensional printer for an alleged violation

1 of Section ~~3273.637~~ 3273.636 that the retailer, distributor, or other
2 individual transferor only sold or transferred the three-dimensional
3 printer after verifying that the make and model was listed by the
4 department on the published list described in this section, and not
5 designated as having an incomplete attestation.

6 ~~3273.637.~~

7 3273.636. (a) Any business that produces or manufactures
8 three-dimensional printers for sale or transfer in California shall
9 take both of the following steps:

10 (1) Before any three-dimensional printer is offered, sold,
11 transferred, or distributed to any person or business in California,
12 the manufacturer shall equip the three-dimensional printer with
13 ~~certified~~ firearm blocking technology, as described in Sections
14 3273.633 and 3273.634.

15 (2) Before any three-dimensional printer is offered, sold,
16 transferred, or distributed to any person or business in California,
17 the manufacturer shall submit a self-attestation of installation of
18 firearm blocking technology to the department, as described in
19 Section ~~3273.636~~. 3273.635.

20 (b) Any business that sells, offers to sell, distributes, or transfers
21 for consideration a three-dimensional printer in California shall
22 consult the list published by the department described in
23 subdivision (b) of Section ~~3273.636~~. 3273.635.

24 (c) It shall be unlawful to sell or transfer for consideration a
25 three-dimensional printer in California that does not meet both of
26 the following requirements:

27 (1) The three-dimensional printer shall be equipped with firearm
28 blocking technology.

29 (2) The three-dimensional printer shall be listed by the
30 department on the published list described in subdivision (b) of
31 Section ~~3273.636~~ 3273.635 as having a complete attestation on
32 file.

33 (d) This section shall not apply to the following products:

34 (1) Printers manufactured for and sold exclusively to a
35 state-licensed firearms manufacturer, as defined in subdivision (g)
36 of Section 29185 of the Penal Code.

37 (2) Printers manufactured for and sold exclusively to the State
38 of California or law enforcement agencies of the United States for
39 the manufacturing of firearms for law enforcement or military
40 purposes.

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

5 (4) Printers manufactured for and sold exclusively to
6 entertainment industry stagecraft and propmaking studios.

7 (5) *Printers sold or transferred in private transactions that were*
8 *originally purchased before the publication of the list described*
9 *in paragraph (1) of subdivision (b) of Section 3273.635.*

10 (e) A civil action may be brought against a person who does
11 either of the following:

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

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

23 (2) Knowingly files an attestation in subdivision (a) of Section
24 ~~3273.636~~ 3273.635 containing false information. The filing of a
25 civil action under this section shall not preclude potential criminal
26 prosecution for perjury, as defined in Section 118 of the Penal
27 Code.

28 (f) (1) A person who has suffered harm in California as a result
29 of a violation of this section may bring an action in a court of
30 competent jurisdiction to establish that a person has violated this
31 section, and may seek compensatory damages as well as injunctive
32 relief sufficient to prevent the person and any other defendant from
33 further violating the law.

34 (2) The Attorney General, a county counsel, or a city attorney
35 may bring an action in a court of competent jurisdiction to establish
36 that a person has violated this section, and may seek a civil penalty
37 not to exceed twenty-five thousand dollars (\$25,000) for each
38 violation, as well as injunctive relief sufficient to prevent the person
39 and any other defendant from further violating the law.

1 (3) A prevailing plaintiff shall be entitled to recover reasonable
2 attorney's fees and costs.

3 (g) The remedies provided by this section are cumulative and
4 shall not be construed as restricting any other rights, causes of
5 action, claims, or defenses available under any other law.

6 (h) This section shall become operative on ~~March~~ *December* 1,
7 2029.

8 ~~3273.638.~~

9 3273.637. The department may promulgate regulations and
10 develop forms and publications ~~necessary~~ to implement this title.

11 SEC. 2. Section 29187 is added to the Penal Code, to read:

12 29187. (a) It is unlawful to knowingly disable, deactivate,
13 uninstall, or otherwise circumvent any firearm blocking technology
14 installed in a three-dimensional printer with intent to manufacture
15 firearms or to knowingly distribute, sell, or transfer for
16 consideration in California one or more modified versions of a
17 three-dimensional printer identified on the Department of Justice's
18 list of three-dimensional printers eligible for sale in California, as
19 described in Section ~~3273.636~~ 3273.635 of the Civil Code, with
20 the intent to facilitate the unlawful manufacture of firearms, as
21 defined in Section 29186.

22 (b) A violation of this section is a misdemeanor.

23 (c) This section does not preclude prosecution under any other
24 law providing for a greater penalty.

25 SEC. 3. The provisions of this act are severable. If any
26 provision of this act or its application is held invalid, that invalidity
27 shall not affect other provisions or applications that can be given
28 effect without the invalid provision or application.

29 SEC. 4. No reimbursement is required by this act pursuant to
30 Section 6 of Article XIII B of the California Constitution because
31 the only costs that may be incurred by a local agency or school
32 district will be incurred because this act creates a new crime or
33 infraction, eliminates a crime or infraction, or changes the penalty
34 for a crime or infraction, within the meaning of Section 17556 of
35 the Government Code, or changes the definition of a crime within
36 the meaning of Section 6 of Article XIII B of the California
37 Constitution.

O