



# Amber Alert

## 3D Printed Firearms

Information alert for higher education professionals

March 2025

V1.1

This Amber Alert is issued by the United Kingdom's National Crime Agency (NCA). It is based on assessed intelligence and warns of dangers and threats from serious organised criminality. It is devised with the aim of bringing about preventative or remedial action.

We recommend you use this Alert to complement existing knowledge and support ongoing improvements to your business processes and procedures.



## Overview

This alert is intended to inform staff within a university setting that may have responsibility for students with an interest in and/or access to 3D printing technology.

Whilst we recognise that there are many legitimate uses for 3D printing technology, there are also opportunities to exploit this technology for illegal purposes. This document provides an overview of 3D printed firearms, reinforces possible criminal implications if manufactured and provides guidance for staff to report concerns.

## What is a 3D printed firearm?

A 3D printed firearm is manufactured wholly or in part utilising 3D printing technology, using detailed design specifications (CAD blueprints).

In the UK, the most commonly seen 3D printed firearms are hybrid models, comprised of mostly plastic parts that have been manufactured using a 3D printer (frame, trigger, hammer etc.) along with some metal components (barrel, firing pin, bolt etc.). These metal elements are either purchased (where unregulated under UK legislation<sup>1</sup>) or manufactured from readily available material. The 3D printed and metal parts are assembled to create a functioning, lethal firearm.

There are manuals and blueprints freely available online for an array of weapons, including firearms, knives and knuckledusters. Below are some examples of hybrid firearms using mainly 3D printed components, that if manufactured to the standard within the manuals, can produce viable functioning firearms.



PG22



Harlot Pistol

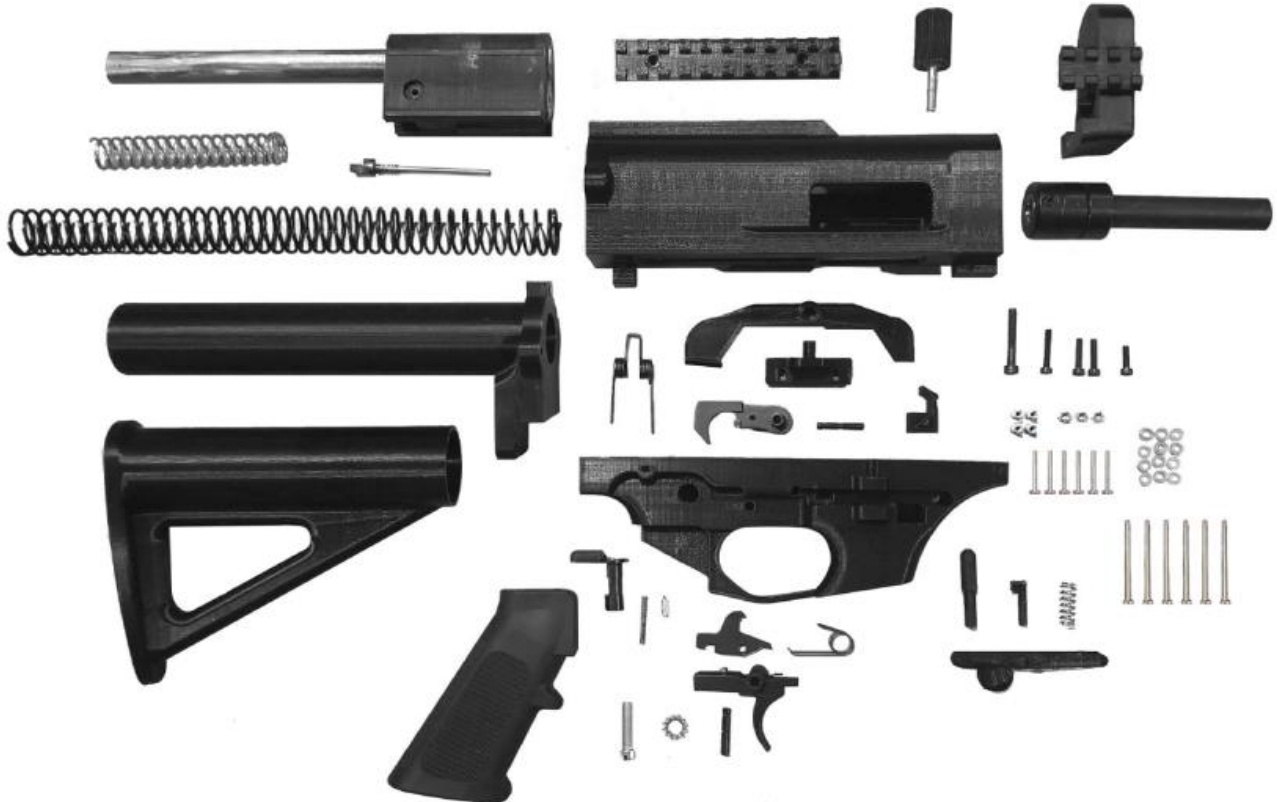
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<sup>1</sup> See Appendix 1 for UK firearms legislation.



FGC-9

The above depicts the FGC-9 in a complete state, but the individual parts may look innocuous and not obviously resemble a firearm part. The below image shows the FGC-9 reduced to its individual component parts.



## Harmful use of 3D printing technology

Due to advancements in technology, 3D printing has become more accessible to the general public as printers and materials have become cheaper and less complicated to use. This means that viable, unregulated and untraceable 3D printed firearms can be manufactured in private spaces, presenting a real threat to public safety.

Most of the designs and files required to print firearm parts are freely accessible on the open web. New designs and updates to existing designs are regularly posted and shared online within user forums increasing the accessibility to this information. Despite the required files, including blueprints (commonly having .stl or .gcode file extensions) and build manuals being readily available across various platforms and forums, there is currently no restriction on access to such information in the UK.

The Government is legislating to criminalise the importation, making, adapting, supply, offering to supply and possession of 3D printer firearms templates that can be used to print any part of a firearm as defined by section 57 of the Firearms Act 1968, through the Border Security, Asylum and Immigration Bill<sup>2</sup>.

Firearms culture varies from country to country, and therefore legislation differs too. The 3D printing phenomenon is international and, in some countries, 3D printing firearms is legal in line with the respective firearms legislation. However, the 3D printing of firearms and many component parts of firearms is prohibited in the UK, it being considered as manufacture of a firearm under UK firearms legislation<sup>3</sup>. Persons found to be manufacturing 3D printed firearms and component parts can be, and are being, prosecuted for such offences and may receive significant custodial sentences, even if the firearm is incomplete. If found guilty of manufacturing a firearm, this offence carries a minimum mandatory sentence of five years, but there have been several instances where individuals have received a much higher sentence.

The private manufacture of firearms can also pose considerable safety risks to those involved in the manufacture and subsequent firing of the weapon, and to those nearby. The printing of pressure bearing parts can result in malfunction or failure of those parts with potentially significant safety implications.

## What can you do?

We understand that 3D printing technology is an area of interest for many, with access to this technology becoming more widespread, however this exposes vulnerabilities for young people to inadvertently stray into illegal or harmful activity.

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<sup>2</sup> Clauses 43 and 44 of the Border Security, Asylum and Immigration Bill - <https://publications.parliament.uk/pa/bills/cbill/59-01/0173/240173.pdf>

<sup>3</sup> See Appendix 1 for UK firearms legislation.

In a university setting or in private spaces within campus, students may have access to 3D printing technology. This technology must not be used to print firearms or component parts.

We ask that staff familiarise themselves with this alert and remain vigilant to the activities of students, the type of information being accessed on university systems or items that are being produced on 3D printers.

If you have any concerns about the actions or behaviours of students, please refer to your internal safeguarding policies and procedures, however, do not put yourself at risk.

You may wish to contact your local police or report these concerns anonymously to the independent charity CrimeStoppers on 0800 555 111. You can also use the anonymous online form available on the CrimeStoppers website.

If you believe anyone is at immediate risk or harm, then please call 999.



## Appendix 1

### What is the law in the UK around 3D printed firearms?

The manufacture, purchase, sale and possession of 3D printed firearms, ammunition or component parts is captured by the provisions in Section 57(1) of the Firearms Act 1968<sup>4</sup>.

Under this Act, a firearm is defined as:

- a lethal barrelled weapon,
- a prohibited weapon,
- a relevant component part in relation to a lethal barrelled weapon or prohibited weapon, and
- an accessory designed or adapted to diminish the noise or flash caused by firing the weapon.

Under this Act, a component part is defined as:

- a barrel, chamber or cylinder,
- a frame, body or receiver,
- a breech block, bolt or other mechanism for containing the pressure of discharge at the rear of a chamber.

#### Firearms Act 1968 Section 5 – Weapons subject to general prohibition

(1) A person commits an offence if, [without authority], he has in his possession, or purchases or acquires –

(aba) any firearm which either has a barrel less than 30 centimetres in length or is less than 60 centimetres in length overall, other than an air weapon, a muzzle-loading gun or a firearm designed as signalling apparatus.

(2A) A person commits an offence if without authority—

- (a) he manufactures any weapon [device] or ammunition specified in subsection (1) of this section,
- (b) he sells or transfers any prohibited weapon or prohibited ammunition,
- (c) he has in his possession for sale or transfer any prohibited weapon or prohibited ammunition, or
- (d) he purchases or acquires for sale or transfer any prohibited weapon or prohibited ammunition.

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<sup>4</sup> Firearms Act 1968 – <https://www.legislation.gov.uk/ukpga/1968/27>

Firearms Act 1968 Section 3 - Business and other transactions with firearms and ammunition.

- (1) A person commits an offence if, by way of trade or business, he—
- (a) manufactures, sells, transfers, repairs, tests or proves any firearm or ammunition to which section 1 of this Act applies, or a shot gun;
  - (b) exposes for sale or transfer, or has in his possession for sale, transfer, repair, test or proof any such firearm or ammunition, or a shot gun,
  - (c) sells or transfers an air weapon, exposes such a weapon for sale or transfer or has such a weapon in his possession for sale or transfer,
- without being registered under this Act as a firearms dealer.

#### Proposed legislation

The Government is legislating to criminalise the importation, making, adapting, supply, offering to supply and possession of 3D printer firearms templates that can be used to print any part of a firearm as defined by section 57 of the Firearms Act 1968, through clauses 43 and 44 of the Border Security, Asylum and Immigration Bill<sup>5</sup>.

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<sup>5</sup> Clauses 43 and 44 of the Border Security, Asylum and Immigration Bill - <https://publications.parliament.uk/pa/bills/cbill/59-01/0173/240173.pdf>

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The NCA reminds you of your legal obligations in respect of the management of this information, including under the Data Protection Act 2018 and the UK General Data Protection Regulation (UK GDPR).

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3. Adequate, relevant and limited to what's necessary in relation to the purpose for which they are processed;
4. Accurate and where necessary kept up to date;
5. Kept in a form which permits identification of data subjects for no longer than is necessary for the purpose for which the personal data are processed;
6. Processed in a manner that ensures appropriate security of the personal data.

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NCA Alerts are marked either Red or Amber. This is designed to indicate the urgency of the warning. Red may indicate a more immediate or specific threat, whilst those marked Amber will provide more general information that may complement existing knowledge.

Recognising that the private sector is often the victim of serious organised crime and is engaged in its own efforts to prevent, deter and frustrate criminal activity, the NCA seeks to forge new relationships with business and commerce that will be to our mutual benefit – and to the criminals' cost. By issuing Alerts that warn of criminal dangers and threats, NCA seeks to arm the private sector with information and advice it can use to protect itself and the public.

For further information about this NCA Alert, please contact the NCA by email [tlpreventcommodities@nca.gov.uk](mailto:tlpreventcommodities@nca.gov.uk). For more information about the National Crime Agency go to [www.nationalcrimeagency.gov.uk](http://www.nationalcrimeagency.gov.uk).

### Protecting the Public – Providing information back to the NCA

Section 7(1) of the Crime and Courts Act 2013 allows you to disclose information to the NCA, provided the disclosure is made for the purposes of discharging the NCA's functions of combating serious, organised and other kinds of crime. The disclosure of such information to the NCA will not breach any obligation of confidence you may owe to a third party or any other restrictions (however imposed) on the disclosure of this information. The disclosure of personal information about a living individual by you to the NCA must still comply with the provisions of the Data Protection Act 2018 (DPA) and the General Data Protection Regulation (UK GDPR). However, you may be satisfied that the disclosure by you of such personal information to the NCA in order to assist the NCA in carrying out its functions may be permitted by Schedule 2, Part 1 of the DPA 2018. This allows a data controller to be exempt (by means of a restriction or adaption) from provisions of the UK GDPR, if the personal data is processed for the following purposes:

- a) the prevention or detection of crime,
- b) the apprehension or prosecution of offenders, or
- c) the assessment or collection of a tax or duty or an imposition of a similar nature,

to the extent that the application of those provisions of the UK GDPR would be likely to prejudice any of the matters mentioned in paragraphs (a) to (c). (DPA 2018, Schedule 2, Part 1, paragraph 2(1)).

Any Section 7(1) information should be submitted to [tlpreventcommodities@nca.gov.uk](mailto:tlpreventcommodities@nca.gov.uk).

The NCA's Information Charter is published on our external website at [www.nationalcrimeagency.gov.uk](http://www.nationalcrimeagency.gov.uk).

#### Handling advice – Legal information

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