

Forum:*Disarmament commission*

Issue: Taking precautions against the potential risk of legalizing 3D printed weaponry

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1. **Introduction**

With 3D printers, getting a gun could be as easy as downloading it. A person could find a schematic for a firearm online, plug it into a 3D printer with the right materials, a gun is created on the spot. No background check required, no serial number to trace the gun if it’s used in a crime.

The danger of self-produced guns isn't new; however, a basic hindrance is crumbling. As of not long ago, the vast majority didn't have what it takes to make a weapon as competent as economically accessible ones. In any case, late improvements in the field of added substance fabricating, otherwise called 3D printing, have made home assembling more straightforward than any time in recent memory. The possibility of increasingly stringent enactment is likewise energizing enthusiasm for at-home creation.

Plans for essential handguns that can be made on buyer grade 3D printers are promptly accessible on the web. With further developed 3D printers and other at-home innovations, for example, the Ghost Gunner PC controlled plant, individuals can even make increasingly complex weapons, including metal handguns and segments for quick firing rifles.

These advances present difficulties for firearm guideline as well as for endeavors to shield humankind from all the more dominant weapons. In the expressions of Bruce Goodwin, partner chief everywhere for national security arrangement and research at the Lawrence Livermore National Laboratory, "without anyone else, added substance fabricating makes a huge difference, including barrier matters."

1. **Definition of Key Terms**

**Disarmament commission**

The United Nations Disarmament Commission (UNDC) is a deliberative body and a subsidiary organ of the UN General Assembly which is mandated to consider and make recommendations on various disarmament related issues and to follow up the relevant decisions and recommendations of the special sessions

**3D-printer**

A machine allowing the creation of a physical object from a three-dimensional digital model, typically by laying down many thin layers of a material in succession

**Firearms**

A firearm is a portable gun (a barreled ranged weapon) that inflicts damage on targets by launching one or more projectiles driven by rapidly expanding high-pressure gas produced chemically by exothermic combustion (deflagration) of propellant within an ammunition cartridge.

**Disarmament**

The reduction or withdrawal of military forces and weapons.

1. **General Overview – Background information**

**Background information:**

In 2012, the U.S.-based group [Defense Distributed](https://en.wikipedia.org/wiki/Defense_Distributed) disclosed plans to design a working plastic [gun](https://en.wikipedia.org/wiki/Gun) that could be downloaded and reproduced by anybody with a [3D printer](https://en.wikipedia.org/wiki/3D_printer). Defense Distributed has also designed a 3D printable [AR-15](https://en.wikipedia.org/wiki/AR-15) type rifle lower receiver (capable of lasting more than 650 rounds) and a variety of magazines, including for the AK-47. In May 2013, Defense Distributed completed design of the first working blueprint to produce a plastic gun with a 3D printer. The [United States Department of State](https://en.wikipedia.org/wiki/United_States_Department_of_State) demanded removal of the instructions from the Defense Distributed website, deeming them a violation of the [Arms Export Control Act](https://en.wikipedia.org/wiki/Arms_Export_Control_Act). In 2015, Defense Distributed founder Cody Wilson sued the United States government on free speech grounds and in 2018 the Department of Justice settled, acknowledging Wilson's right to publish instructions for the production of 3D printed firearms. In 2013 a Texas company, [Solid Concepts](https://en.wikipedia.org/wiki/Solid_Concepts), demonstrated a 3D printed version of an [M1911 pistol](https://en.wikipedia.org/wiki/M1911_pistol) made of metal, using an industrial 3D printer.

UN rights activist [Cody Wilson](https://www.nytimes.com/2018/08/01/us/3d-guns-printing.html) got a [green light from the Trump administration](https://www.wired.com/story/a-landmark-legal-shift-opens-pandoras-box-for-diy-guns/) in June to publish digital blueprints on the internet that will enable anyone with a 3D printer to make a [plastic gun](https://www.forbes.com/sites/andygreenberg/2013/05/05/meet-the-liberator-test-firing-the-worlds-first-fully-3d-printed-gun/).

A [federal judge blocked distribution](https://www.documentcloud.org/documents/4624040-WDWA-3D-20180731.html#document/p7/a444057) of those blueprints. But [thousands of people have already downloaded](https://www.huffingtonpost.com/entry/3d-printed-gun-blueprints-ar-15_us_5b607652e4b0b15aba9d014b) them.

Designs include [handguns and semi-automatic assault-style weapons](https://www.washingtonpost.com/news/morning-mix/wp/2018/07/31/in-last-minute-lawsuit-states-say-3-d-printable-guns-pose-national-security-threat/?utm_term=.3ea0b2c7a006). Federal background check laws applicable to the physical sale of firearms do not apply to the electronic posting of digital blueprints, and state restrictions on assault weapons will be impossible to enforce for any weapons made from Wilson’s designs because there will be no production or sales records.

Wilson’s harnessing of computer technology and his [self-proclaimed radical ideology](https://www.theverge.com/2013/4/12/4209364/guns-want-to-be-free-what-happens-when-3d-printing-and-crypto-anarchy) have added a new, unpredictable dimension to America’s struggle to reduce gun violence.

But [my research](https://www.press.umich.edu/136758/suing_the_gun_industry) into the marketing, distribution and sales practices of the U.S. firearms industry reveals that there is nothing new in attempts by gun makers to exploit loopholes in government regulations.

Since the 1980s, anyone can purchase the most lethal of firearms [free from all legal restrictions](https://www.npr.org/2017/11/21/565686173/do-it-yourself-ghost-guns-bypass-background-checks-firearm-registration). This has been made possible by small companies, operating on the margins of the gun industry, that sell complete weapons in the form of parts kits.

Gun parts – as opposed to whole guns – are not subject to any of the federal regulations that govern [firearms](https://www.law.cornell.edu/uscode/text/18/921) sales. No federal license is necessary to sell gun parts. And no background check is needed to purchase them.

**General overview:**

Perhaps what stirs this fear isn’t the functionality of these homemade weapons, but the ease of creating one without anyone knowing. Many states in the U.S. and other countries throughout the world have strict gun control laws. Generally speaking, those who are allowed to own a firearm must have it registered. But with 3D printed guns, people fear that criminals and other unstable people will be able to produce firearms at home and commit crimes with it.

The commonly used term for a 3D printed firearm is “Ghost Gun”, which refers to the fact that these firearms are 3D printed without serial numbers and are virtually untraceable by the government.

Although the current state of desktop 3D printing doesn’t necessarily allow high-quality firearms to be manufactured at home, this could also change as the technology advances. For instance, as metal 3D printing becomes more affordable and accessible, the potential to create higher-grade weapons could grow.

Another valid fear is that 3D printing could lead to cheap firearm factories for criminals. But again, having a gun 3D printed in metal would cost thousands of dollars, making it more convenient for criminals to wade through other illegal channels to find one.

It’s quite easy to produce a plastic firearm with the proper 3D files and desktop printer. But this homemade 3D printed gun is far from reliable when it comes to functionality. In fact, [police testing has proven](https://www.youtube.com/watch?v=7xjlqMw8FYE) that a 3D printed gun could endanger the shooter as much as anyone else.

A firearm produced with ABS material could break apart or even potentially explode in the hands of the user when fired. Softer PLA will likely cause the parts to bend or deform after firing.

Realistically, neither ABS or PLA is ideal for producing firearms. While most plastic 3D printed guns are made using ABS, chances are only a single shot will be able to be fired before it either breaks or fails. The reason for this is because the act of firing a bullet simply exerts too much power for most thermoplastics to withstand.

Some gun enthusiasts have created hybrid 3D printed guns, consisting of traditional metal components and thermoplastics. In theory, these firearms should offer much better functionality than an ABS-based weapon. But again, building a hybrid 3D printed gun seems counterproductive to just finding an actual one.

1. **Major Parties Involved and Their Views**

**The United states of America:**

Under the [Undetectable Firearms Act](https://en.wikipedia.org/wiki/Undetectable_Firearms_Act) any firearm that cannot be detected by a metal detector is illegal to manufacture, so legal designs for firearms such as the [Liberator](https://en.wikipedia.org/wiki/Liberator_(gun)) require a metal plate to be inserted into the printed body. The act had a sunset provision to expire December 9, 2013. Senator Schumer proposed renewing the law, and expanding the type of guns that would be prohibited.[[40]](https://en.wikipedia.org/wiki/3D_printed_firearms#cite_note-40) Proposed renewals and expansions of the current Undetectable Firearms Act ([H.R. 1474](https://www.congress.gov/bill/113th-congress/house-bill/1474), [S. 1149](https://www.congress.gov/bill/113th-congress/senate-bill/1149)) include provisions to criminalize individual production of firearm receivers and magazines that do not include arbitrary amounts of metal, measures outside the scope of the original UFA and not extended to cover commercial manufacture.

On December 3, 2013, the [United States House of Representatives](https://en.wikipedia.org/wiki/United_States_House_of_Representatives) passed the bill [To extend the Undetectable Firearms Act of 1988 for 10 years (H.R. 3626; 113th Congress)](https://en.wikipedia.org/wiki/To_extend_the_Undetectable_Firearms_Act_of_1988_for_10_years_(H.R._3626;_113th_Congress)). The bill extended the Act, but did not change any of the law's provisions.

On August 27, 2018, a [United States federal judge](https://en.wikipedia.org/wiki/United_States_federal_judge) blocked the Defense Distributed and its founder, Cody Wilson, from posting 3D-printed gun blueprints online. [Judge Lasnik](https://en.wikipedia.org/wiki/Robert_S._Lasnik) first imposed a temporary restraining order on Wilson, but that was due to expire, so he mandated a [preliminary injunction](https://en.wikipedia.org/wiki/Preliminary_injunction) that blocks online distribution in the United States while the legal proceedings are ongoing.

**United Kingdom:**

In the [United Kingdom](https://en.wikipedia.org/wiki/United_Kingdom), the [Firearms Act 1968](https://en.wikipedia.org/wiki/Firearms_Act_1968) bans the manufacturing of guns and gun parts without government approval. Hence, 3D printed weapons are de facto banned because the law bans all manufacturing, regardless of method. However, the [Home Office](https://en.wikipedia.org/wiki/Home_Office) updated its Guide on Firearms Licensing Law to specifically mention the ban on 3D printed weapons. In 2013, a police raid on a Manchester gang resulted in seizures in what are believed to be 3D printed gun parts. The Greater Manchester police believe they found a trigger and a magazine along with a quantity of [gunpowder](https://en.wikipedia.org/wiki/Gunpowder)

**Australia:**

In [Australia](https://en.wikipedia.org/wiki/Australia), the state law of [New South Wales](https://en.wikipedia.org/wiki/New_South_Wales) criminalizes the possession of the digital plans and files to 3D print firearms under Section 51F of the Firearms Act 1996. In one case in 2015, a loaded 3D printed firearm was found during a police raid on a meth lab.

In another case in February 2017, Sicen Sun was arrested on charges related to 3D printable guns. During trial in December 2017 he pleaded guilty to charges including possessing a digital blueprint for the manufacture of firearms, manufacturing a pistol without a license permit, and possessing an unauthorized pistol. In sentence hearing on August 6, 2018, he told the court he initially wanted to replicate a gun from the videogame [Halo](https://en.wikipedia.org/wiki/Halo_(franchise)) and when he started searching blueprints online he downloaded plans for other guns which looked "cool.". Sun had previously posted an advertisement to the internet to sell one of his imitation weapons for "$1 million negotiable" on a [Facebook](https://en.wikipedia.org/wiki/Facebook) buy, swap and sell group, which set off the investigation.

**Japan:**

In [Japan](https://en.wikipedia.org/wiki/Japan), in May 2014, Yoshitomo Imura was the first person to be arrested for possessing printed guns. Imura had five guns, two of which were capable of being fired, but had no ammunition. Imura had previously posted blueprints and video of his guns to the Internet, which set off the investigation.

1. **Timeline of Events**

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| The development of 3D printers and 3D printed firearms | |
| 1986 | **Chuck Hull Patents Stereo lithography and Founds 3D Systems, Inc.**  Chuck Hull is granted a patent for “Apparatus for Production of Three-dimensional Objects of Stereo lithography,” the first commercial rapid prototyping technology, also known as additive manufacturing or 3D printing. Hull also develops the STL file format, which allows 3D digital files to be converted into 3D-printed objects.  **Carl R. Deckard Patents Selective Laser Sintering (SLS) Technology Carl R.**  Deckard files a patent for Selective Laser Sintering, a project he began researching as an undergraduate at the University of Texas at Austin. The first SLS machine, nicknamed Betsy, fuses small particles of plastic, metal, ceramic or glass powders into solid 3D forms with a high powered laser. |
| 1989 | **The First Known Artist Works with 3D-Printing Technologies**  Masaki Fujiyama uses stereo lithography to create his computer-generated work, Forbidden Fruits, a golden orange, semi-translucent group of organic forms arranged in a sculptural cluster.  **S. Scott Crump Patents Fused Deposition Modeling (FDM):**  FDM, a 3D-printing technology, applies materials in a series of additive layers by mathematically slicing and orienting models. Crump also establishes Stratasys, a 3D printing and production company.  **Drs. Hans J. Langer and Hans Steinbach Found EOS GmbH Electro Optical Systems:**  Drs. Langer and Steinbach found EOS in Germany. They use 3D printing with Selective Laser Sintering (SLS) technology generated by data from CAD software. |
| 1990 | **Wilfred Vancian Founds Materialise, the First Rapid Prototyping Service Bureau:**  Vancian establishes Materialise in Belgium, concentrating on the research and development of solutions for the transfer of data to 3D printers. |
| 1991 | **Helisys Creates Laminated Object Manufacturing (LOM):**  LOM prints in 3D by using paper that is unrolled and glued layer by layer.  **Cubital Ltd Introduces Solid Ground Curing (SGC):**  This technology flashes layers of printing materials with ultraviolet (UV) light to harden polymers through a series of masks created by electrostatic toner on a plate. |
| 1993 | **First Worldwide Computer Sculpture Exhibition:**  Ars Mathematica, based in France, organizes the first exhibition devoted to computer sculpture at the Ecole Polytechnique in Paris; this exhibition later evolves into the “Intersculpt” biennial. **Soligen Commercializes Direct Shell Production Casting:**  The company bases its technology on the Massachusetts Institute of Technology’s patent for ink jetting a liquid binder onto ceramic powder to form shells that are then used in the casting process. |
| 1994 | **Solid scape Incorporates and Introduces First 3D Wax Printing:**  Solid scape produces high-precision 3D printers, materials and software for the direct manufacturing of solid objects designed in CAD. The company creates the first 3D wax printer, Model Maker. |
| 1995 | **Z Corporation Introduces Z Printers:**  Z Corporation, commonly called Z Corp, produces Z Printers, which act like inkjet printers in that a head moves across a bed of powder, selectively depositing a liquid binding material in the shape of the section. The printer then spreads a fresh layer of powder across the top of the model and the process is repeated. |
| 1997 | **Materialise Introduces Next-Day 3D Printing Service:**  The 24-hour service, Materialise Next Day, allows customers to order 3Dprinted objects online. Aero Mat Launches 3D Metal Printer: Aero Mat, a subsidiary of MTS Systems Corp., produces the first 3Dprinted metal using Laser Additive Manufacturing (LAM), which employs high-powered lasers to fuse powdered titanium alloys. |
| 1999 | **Objet Geometries Is Founded and Introduces 3D-Printed:**  Objects That Can Simulate Different Material Properties in One Object Specializing in high-resolution rapid prototyping and rapid manufacturing, Objet Geometries Ltd. produces the first 3D printer that can print both hard and soft materials, and a range of hardness in between, that look, feel and function like the final product.  **Voxeljet Is Founded:**  The company’s goal is to develop new generative processes for casting and producing plastic components using 3D printing. Voxeljet focuses on large-scale production, making the molds for several automotive companies’ engines.  **Scientists Create the First 3D-Printed Organ:**  Scientists at the Wake Forrest Institute for Regenerative Medicine create the first 3D-printed lab-grown organ, a bladder. The bladder is made from a patient’s own cells, significantly reducing the risk for rejection if implanted. (Note: This organ was not implanted; for the first working 3Dprinted organ, see 2003.) |
| 2000 | **Mammoth Stereo lithography Machine Allows for Large-Scale Printing:**  Materialise launches the Mammoth Stereo lithography machine, which has a build area of more than two meters. This enables the large-scale creation of 3D objects in one piece through the successive addition of liquid polymer hardened using a laser beam. |
| 2002 | **Fast, High-Quality 3D Objects Become Available:**  Envisiontec starts manufacturing their Perfactory Machine (first unveiled in 2001) that allows for the production of exceptionally large 3D parts at fast speeds without sacrificing surface quality and part accuracy. The machine eliminates the look of visible line layers and has a build volume of 500 x 600 x 400mm (20 x 24 x 16 inches). |
| 2003 | **Arcam Launches the First Commercial Electron Beam Melting (EBM) System:**  This system melts metal powder together, layer by layer, using an electron beam in a high-temperature vacuum.  **Other Important Developments:**  EOS introduces the first laser-sintered, metal-based powder machine. Z Corp introduces the world’s first commercially available multiple-color 3D printer. The first 3D-printed working organ, a kidney, is created in China. |
| 2005 | **First Fully Articulated 3D-Printed Furniture Created:**  French artist Patrick Jouin creates the C1 chair, which is built as a cellular structure superimposed onto a standard chair form. The same year, Materialise produces the first 3D-printed stool that is printed in one piece, complete with concealed hinges.  **First At-Home 3D Printers Emerge:**  The RepRap project, founded by Dr. Adrian Bowyer at the University of Bath, brings the world the first at-home 3D printer. |
| 2006 | **Multi-Material 3D Printer Available to the Public:**  The Fab@Home project, one of the first open-source DIY printing projects, brings multi-material printing to the public that is low-cost and “hackable.”  **3D-Printed Cobalt Chrome and Stainless Steel:**  The first laser-sintered 3D Printer, EOSINT M 270 by EOS, prints cobalt chrome and stainless steel. |
| 2007 | **Objet Upgrades 3D Printers to Include 14 Varieties of Hardness That Simulate Different Material Properties in One Object:**  Objet introduces the Connex series of 3D printers that enable users to combine two different materials in one print job in a variety of combinations that produce up to fourteen different levels of hardness, texture and shading, with no assembly, creating forms that range from rigid to rubber, dense to hollow and translucent to opaque. |
| 2008 | **New Matrix System Enables 3D Printing with Regular Sheets of Paper**:  Mcor Technologies, founded by Dr. Connor McCormack and Fantan McCormack, launches the New Matrix system that adheres A4 sheets of paper together using Helisys LOM technology.  **RepRap Project Releases Darwin, the First Open-Sourced 3D Printer Hardware:**  This spawns a huge 3D-printing maker community worldwide.  **Shape ways Starts its Online 3D Printing Service:**  Shape ways launches in the Netherlands as a spin-off of Royal Philips Electronics. Using this online 3D printing service, individuals can use a simplified design process made for consumers to make, buy and sell their own products that are then inexpensively printed and delivered.  **First Usable Prosthetic Created:**  The first usable prosthetic with all its parts, including knee, foot, and socket, is printed in one piece without any assembly required. This development leads to the creation of Bespoke Innovations, Inc. in 2010.  **User-Created Open-Source Design Flourishes:**  Thing verse launches a website dedicated to sharing user-generated digital design files, providing primarily open-source hardware design licenses under the GNU General Public License (a Creative Commons License). |
| 2009 | **Laika Animation Makes First 3D-Printed Animated Movie:**  Laika animation studio uses 3D printing to make the “puppets” (i.e., the animated characters) for Coraline. The heads and hands are 3D printed, then painted by hand.  **3D Printing Gets its First Standard Reference Guide:**  Seventy individuals from around the world meet at the ASTM International Headquarters near Philadelphia, PA, to establish ASTM Committee F42 on Additive Manufacturing Technologies. This results in the publication of the first standard terminology reference.  **MakerBot Industries Makes 3D Printing More Accessible for Individuals:**  MakerBot Industries is founded with an open-sourcing model, offering products that are created not with the intent to mass-produce, but rather for individuals. Printers are sold as do-it-yourself kits, requiring only minor soldering. |
| 2010 | **The Centre for Fine Print Research Is the First to 3D Print Porcelain:**  Based out of England, the Centre patents their system for 3D printing porcelain using the ZCorp 310 Printer.  **Scott Summit and Kenneth Trauner Found Bespoke Innovations, Inc.:**  The company creates personalized 3D-printed prosthetics.  **Other Important Developments:**  HP signs an agreement with Stratasys and becomes the first large consumer electronics company to manufacture 3D printers.  Fresh fiber is first company worldwide to exclusively use 3D printing to create consumer products. MGX, by Materialise, opens the first store exclusively for 3D-printed goods in Brussels.  Continuum Fashion and Shape ways create n12, the first ready-to-wear, 3D-printed and fully articulated bikini. |
| 2011 | **First 3D-Printed Animated Movie in All Color**:  Laika animation studio and Aardman Animations both produce 3Dprinted “puppets” in full color for Para Norman and The Pirates! Band of Misfits, respectively.  **Fused Deposition Modeling (FDM) Patent Expires:**  The expiration of the FDM patent brings technology and information into the public domain that is a catalyst for creativity and open sourcing, building on the momentum created by RepRap and other open-sourcing companies.  **President Barack Obama Announces Advanced**:  Manufacturing Process Partnership (AMP) This national initiative, bringing together industry, universities and the federal government to invest in emerging technologies, aims to increase U.S. competitiveness in manufacturing.  **3D-Printed Dress “One of 50 Best Inventions”:**  TIME Magazine Names Iris van Herpen’s first-ever 3D-printed flexible dress as one of the 50 Best Inventions of the year.  **First 3D-Printed Precious Metal**:  Sterling silver is 3D printed for the first time by Cookson Precious Metals.  **First 3D-Printed Aircraft:**  Designed at the University of Southampton, the first 3D-printed aircraft is created in just seven days. **First 3D-Printed Vehicles**:  HAWK University of Applied Sciences and Arts, Germany, teams with Stratasys to create the world’s first one-person vehicle with a bionic form modeled after a human jaw. The Rapid Racer took 10 days, included 3,600 layers and was made from a 44 MB file. Stratasys and Kor Ecologic Inc. co-develop the Urbeei hybrid, the world’s first production car ever to have its entire body, including its glass-panel prototypes, 3D printed. The European Aeronautic Defense and Space (EADS) group in England creates the first 3D-printed bicycle, the Air bike, out of nylon that is as strong as steel or aluminum, but only 65% of the weight.  **“Desert Manufactured” 3D Printing Uses the World’s Most Efficient and Abundant Energy Source, the Sun:**  Raising questions about the future of manufacturing, Markus Kayser creates the Solar Sinter in the Sahara Desert. This machine uses two abundant resources, silica sand and the sun, to harness the sun’s energy into creating 3D-printed objects made of glass (melted and cooled silica sand). |
| 2012 | **First 3D-Printed Jaw:**  LayerWise builds the world’s first 3D-printed jaw implant for an 83-yearold patient in the Netherlands. The implant helps promote the growth of new bone tissue.  **3D-Printed Affordable Housing Appears on the Horizon:**  Dr. Behrokh Khoshnevis at the University of Southern California creates an automated construction technology, Contour Crafting, that has the potential to build an entire housing unit in one day for a quarter of the costs of manual construction methods. This technology also reduces environmental impact by creating less waste and emission pollution.  **First 3D-Printed Gun**:  The “Liberator” pistol is created by Cody Wilson, a Texas law student. Wilson shares his blueprints for making the gun on the Internet, causing a controversy and leads to Wilson being dubbed one of the “15 Most Dangerous People in the World” by Wired Magazine.  **3D-Printed Candy and Gold**:  First 3D chocolate printer, the Choc Creator, is made commercially available. Gold is 3D printed for the first time by Cookson Precious Metals.  **Stratasys Creates 3D-Printed “Magic Arms”:**  These arms, fully articulated with custom-molded parts, give a two-year-old child the use of her limbs. **3D Precision Engineering Meets Footwear**:  A Selective Laser Sintering (SLS)-crafted cleat is the first 3D-printed shoe plate designed for high-performance football athletes. Through proprietary material selection, Nike was able to prototype a fully functional plate and traction system at a fraction of the time and weight of traditional manufacturing techniques |
| 2013 | **Planning 3D-Printed Lunar Habitations of the Future:**  Foster and Partners, along with several smaller firms, teams with the European Space Agency (ESA) to develop a lunar habitation using 3Dprinted parts transported by rockets, as well as 3D-printed materials using the moon’s own soil. Destined for the moon’s south pole, the structures would protect inhabitants from meteorites, gamma radiation and temperature fluctuations.  **3D Printing Saves Lives:**  Baby’s life is saved with a groundbreaking 3D-printed splint created at the University of Michigan. The splint, made of biological material, opened up the child’s lungs and allowed him to breathe freely. **NASA Embraces 3D Printing**:  NASA announces a plan to explore the possibility of 3D printing food in space for astronauts. At the same time, the organization announces the development of a 3D printer, to be launched in 2014, which can make tools on demand, reducing the need to bring unnecessary supplies into space. NASA also successfully tests the first 3D-printed rocket fuel injector. |

1. UN Involvement, Relevant Resolutions, Treaties and Events:

Due to the fact that this problem, occurred very recently, the UN have still had no involvement in terms of trying to help solve this problem.

1. Evaluation of Previous Attempts to Resolve the Issue

Since there is no UN involvement, then there is no evaluation

1. Possible Solutions

The first solution that may be implemented in order to reduce the amount of 3D printed firearms, is to implement specific rules, which tend to reduce the amount of firearms being produced per person. This solution can help contribute to this problem, as if many countries abide by these rules the chances of having 3D printed fire arms will decrease.

The second solution that could help solve the problem at hand, is having a 3D printer license. By having a licensee, the chances of people printing a 3D fire arm, will be higher, as it will be far more challenging to do print a 3D firearm. By implementing this solution, the chances of unarmed citizens to be armed, will be much harder than it is in our current world.

The third solution that can be implemented to this problem is to abolish the idea of printing 3D firearms. The companies which tend to create 3D printers, can avoid this problem, by disallowing the printer from creating firearms. This solution can be very efficient for the long term, as it will avoid this problem in the future, although for the short term it won’t be as affective.

The fourth and final solution that can be implemented in order to help solve this problem is to apply consequences, to those who have printed 3D printed arms. In order to try avoiding this problem, scaring the people may be a solution, thus meaning that by applying consequences the amount 3D printed fire arms, will decrease.

1. Guiding Questions
2. What major parties are involved in this problem?
3. What is 3D printed firearms?
4. How is this 3D printed firearms created?
5. How has the history of the 3D printing, affect this problem?
6. What are some solutions for the problem at hand?
7. What consequences, may be faced from this problem?
8. How can this problem be avoided?’
9. What measures have already been implemented in order to help solve this problem?
10. What contribution has the UN had?
11. How is the problem affecting our current world?

10.Appendices and useful links

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