# **3D PRINTING & INTELLECTUAL PROPERTY** WHAT ARE YOUR RIGHTS IN EUROPE AND THE US?



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#### 3D printing allows free rein to your creativity. However, the process does not mean freedom from consequences.



In February 2013, the online tech press highlighted a new kind of copyright infringement for the first time. The Iron Throne (from the eponymous Game of Thrones TVshow) had been redesigned and offered for 3D printing as an Iron Throne iPhone Dock. The designer was asked to take down the content as, according to HBO Vice President of Corporate Affairs, Jeff Cusson, it constituted a **"pretty straightforward intellectual property infringement."** Since that time, other similar cases have emerged and the attention that they have drawn makes it clear that this is a growing concern inside the 3D printing community.

On the web, it is now easy to find lots of forum threads dedicated to the question of intellectual property for 3D printing, and even to find white papers on the topic. The evidence to support growing interest in the subject can be found in the constantly increasing body of publications of all kinds relating to 3D printing and intellectual property. It is hard to avoid the conclusion that the subject is on everyone's lips when the topic of 3D printing is mentioned.

In July 2013, a member of the French parliament had asked a question to Arnaud Montebourg, who was Minister of Industrial Renewal at the time, in order to **"draw the Minister's attention to a worthwhile shift in the balance of power in the fight against the risks of illegal reproduction due to the future distribution of 3D printers on the French market,"** and, in September 2014, the French National Institute of Industrial Property (INPI) published a study into additive manufacturing. A number of questions were asked in relation to the use of 3D printing and the ensuing risks that may lead to objects being reproduced in ways that infringe existing rights. It is important to be familiar with existing rules in order to **make more effective use of them.** 

3D printing allows you to give free rein to your creativity and helps in the design phase for a wide variety of objects including dresses, jewellery, automobiles or figurines. However, the process does not mean freedom from consequences and **can lead to counterfeiting, which is subject to criminal prosecution**. From this perspective, it is vital to ensure that compliance with all intellectual property rights is taken into account during the development of 3D printing.

An object that already exists on the market is unlikely to **be rights-free**, and may be protected by intellectual property rights that must be complied with. This is the case even if you have acted in good faith: the reproduction of a protected article, without the authorisation of the rights holder, may amount to counterfeiting.

Understanding the **extent to which an object that you wish to print is protected by design rights or copyright is a complicated matter.** It is therefore important to take a cautious approach and remain alert to the risks of printing an object when you are unaware of its origins or source. In fact, the object being reproduced may originally have been created by a third party who has not given permission for the article to be printed and therefore copied.

It is even more difficult to equip yourself to combat counterfeiting risks in the 3D printing world when you consider works that are distributed in digital format before taking on a physical form. There is a risk of limitless reproductions of protected works that could be made available at any time, anywhere in the world, from a number of different counterfeiters. In fact, 3D printing has already been the source of piracy cases, albeit there have not yet been any convictions. In June 2011, Paramount Pictures obtained an order to remove a 3D file that had been made available online by an internet user and which offered the chance to copy the cube that is seen in J J Abrams' movie, Super 8.

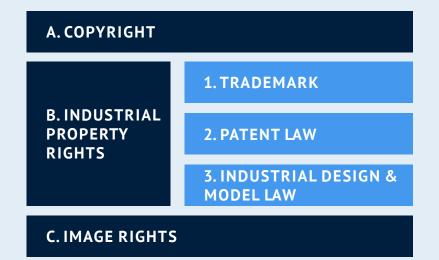
Complying with intellectual property rights is the key to developing 3D printing. In addition, this study will set out the relevant rules to be follow in order to anticipate, as far as possible, the risks of counterfeiting, and **explains in concrete terms what Sculpteo can do for you.** We should start by mentioning that Sculpteo is a French company, operating under French law, which will be explained in the context of the French Intellectual Property Code, the Code de la propriété intellectuelle. American law, which also has a significant impact on matters of 3D printing will then be analysed, particularly with regard to the Digital Millennium Copyright Act.

# WHAT ARE INTELLECTUAL PROPERTY RIGHTS?



The "intellectual property" term refers to intellectual works such as inventions, artistic or literary creations, drawings and models and finally, to names or images used in business.

In France, intellectual property rights are ruled by the French Intellectual Property Code (FIPC) that tells literary and artistic property rights (also known as copyright) from industrial property rights, which includes patent law, industrial design and model law, trademark law and geographical indications.



# A. COPYRIGHT

# **B. INDUSTRIAL PROPERTY RIGHTS**

# **C. IMAGE RIGHTS**

#### DEFINITION

Copyright protects literary works as well as musical, graphic and plastic creations, works of applied art and even fashion designs, etc...



#### **CONTENT CONDITION**

That work has to be "original" - it means that it has to be marked with its author's personality or attest to some creative effort. However, original as an idea or concept may be, they can't be protected.

#### **STYLE CONDITION**

Unlike industrial property rights, copyright is automatically acquired and doesn't need any registration or any other formalities.

However, the French National Institute of Industrial Property (INPI) has a registration and deposit system allowing to build evidence of creation and give it a definite date.

The author of a work and their heirs enjoy rights under copyright legislation from the moment it is created - which is valid seventy years after the author has died.

#### WHICH PROTECTION ?

Also, because the author of a work has created it, they exclusively benefit from 2 types of prerogative:

- Of moral rights , allowing them to oppose disclosing their work without their consent, using their work as it might misrepresent it and claiming the right to get their name mentioned whenever their work is being exploited. These rights are constant and can't be assigned.

-Ofpropertylaw,allowingthemtoforbid or allow copy and/or representation of their work in any form and obtain remuneration in return. WHAT ARE INTELLECTUAL PROPERTY RIGHTS ?

# A.COPYRIGHT

# **B. INDUSTRIAL PROPERTY**

Industrial property rights divide into trademark right, patent right and industrial design and model right.

The main characteristic of the industrial property rights is that the creations being considered have to be registered with a national office in order to be protected. Their protection will only be extended to the territory where the considered office belongs and will be limited in time.

In France, the INPI surveys all existing works and manages all holders' rights. Also, a work registered at the INPI will only be protected on French territory. In order to make sure there is no counterfeit being made in Germany for instance, it is necessary to deposit your work at the appropriate German office.

Beyond national offices, you can protect your creation at Community level with the community intellectual property office or even internationally with the intellectual property worldwide organization by choosing all the territories that are involved. These deposits ensure a more effective protection on many territories but they are still financially higher than a simple deposit with a national organization.

# **C. IMAGE RIGHTS**

**1. TRADEMARK** 

#### 2. PATENT LAW

#### 3. INDUSTRIAL DESIGN & MODEL LAW



#### WHAT ARE INTELLECTUAL PROPERTY RIGHTS ?

# A. INDUSTRIAL PROPERTY RIGHTS

#### **1. TRADEMARK**

is a distinctive sign indicating whether goods or services are produced or supplied by a certain person or a certain company, which serves to distinguish it from all the other goods or services available on the market.

L. 711-1 of the Intellectual Property Code



#### **CONTENT CONDITIONS**

Trademarks are composed of numerals, letters, words or combination of words. They can also be represented by drawings, symbols or 3D signs (the packaging and shape of a product, for example).

#### **STYLE CONDITIONS**

When it comes to trademark law, the breach could represent reproducing a 3D trademark or appositioning a trademark on a printed item, if the trademark has been registered into the CAO file at the same time as the item's contour or if it was directly affixed on the item after it has been printed.

#### WHICH PROTECTION ?

The trademark needs to be protected and thus requires registration with an industrial property Office. (L. 712-1 of the Intellectual Property Code) It needs to have the following characteristics for this to happen:

• It needs to be distinctive: consumers should be able to recognize a trademark as applying to a specific good and to tell it apart from other trademarks used for other goods.

L. 712-2 of the Intellectual Property Code

- It mustn't cheat or mislead consumers or be contrary to public policy and morality.
- If the trademark is identical or similar to a pre-existing registered trademark, it won't be protected.

Once the trademark is protected, its owner can use it exclusively in order to designate the goods or services they are selling or authorizing others to do so upon remuneration.

#### WHAT ARE INTELLECTUAL PROPERTY RIGHTS ?

# A. INDUSTRIAL PROPERTY RIGHTS

#### 2. PATENT

is a title granted by the INPI, conferring an exclusive property right on a creation to its holder. The scope of protection will have to be determined by claims including descriptions, drawings that will potentially be made in 3D. Therefore it doesn't extend to the forms of the creation but it does to the method described in the claims.



#### **CONTENT CONDITIONS**

In order to be characterized and protected, a patent needs to follow three essential conditions:

- the invention needs to be new Also, no invention should have been previously accessible or made public in any way.
- the invention has to come from an inventive step meaning that it should not obviously result from the state of the art for a person skilled on the art.
- the invention should be of industrial application. Thus it can be used or made in the industry.

So this criteria excludes works of art, for example.

Article L. 611-10 of the Intellectual Property Code

#### **STYLE CONDITIONS**

The patent ensures protection of the holder's invention. Also, the latter can't be commercially accomplished, used, distributed or sold without the patentee's agreement. Such exploitation could constitue a forgery and could be sanctioned by competent courts.

In practice, the patentee own the sole right to decide who can or can't use their invention. This permission can be conceded with a license allowing other persons to use this invention on mutually agreed terms. This permission can also be conceded with the sale of a right on the invention to a third party, who will become a patentee too.

#### WHICH PROTECTION ?

Patented inventions have overtaken all aspects of daily life, whether it is with telephony (the iPhone being patented by Apple), sewing machines or electrical lighting (each type of bulb is protected by a specific patent).

Also, lots of printed goods are likely to be the copy of a patent. All human creations with the characteristics of a patent - if it has been registered with an industrial property Office - will be protected and most of them are likely to be easily replicated and printed.

# A. INDUSTRIAL PROPERTY RIGHTS ?

# **3. INDUSTRIAL DESIGN OR MODEL**

refers to the ornemental or aesthetic of a good. A model represents the shape of a good from a 3D point of view, whereas a design refers to 2D elements like lines, patterns or colors. All the elements used in industry or handicraft can be protected as designs and models. Among those are medical elements, watches, jewelry, textile patterns, architectural structures, etc...



# **CONTENT CONDITIONS**

It must be registered with an industrial property Office in order to be protected. To do so, several conditions are required:

• The design has to be new. There must have been no identical design or model disclosed on the day of registration. Identical means a design or model whose characteristics are only different because of minor details.

Article L. 511-3 of the Intellectual Property Code

• The design or model needs to have an individual character. The overall visual impression it produces on the observer needs to differ from that produced by any other design or model.

Article L. 511-4 of the Intellectual Property Code

# **STYLE CONDITIONS**

There are exceptions to the industrial design and model law protection:

• Non-visible goods

A component part can be protected only if it remains visible during normal use by the end user. Thus, when the inner part of a shoe is "non-visible on a photograph presented to INPI during its registration", then it won't be protected because it wasn't apparent.

Article L. 511-5 of the Intellectual Property Code

#### • Shape of assembly parts

A part can only be protected if it has been solely created to be mechanically associated to another good using a connector or connection, except for interconnection or interchangeable parts (construction toys or snap-on storage).

If all required conditions are satisfied and if it's registered, the holder will enjoy the exclusive right to oppose to any non-authorized copy or imitation of their design or model by third parties.

Article L. 511-8 of the Intellectual Property Code

#### WHICH PROTECTION ?

In practice, application of design and model law is complicated because of the chosen national laws and the type of intended design or model - it can be protected with copyright as an intellectual work but also with design and model law. Also, if you can attest that the design or model presents an original character, it could be protected as well because of its creation by copyright.

# A. COPYRIGHT

# **B. INDUSTRIAL PROPERTY RIGHTS**

# **C.IMAGE RIGHTS**

#### DEFINITION

Any other person owes a right on their own image as personality attributes. Whether they are anonymous or famous, they can oppose unauthorized use of their image, without exceptions. All forms of representation of someone's image go through image rights. Photography as well as drawings/design or sculpture are also aimed.

*Image rights are usually based on Article 9 of the Civil Code, relating to respect for privacy.* 

#### **CONTENT CONDITION**

Any individual can seek redress before the courts even if there's no prejudice - they just have to show that their image was used by a third party without their prior approval.

#### **STYLE CONDITION**

Image rights are independent from intellectual property rights but they can be involved in 3D printing. It's indeed forbidden to print an item representing, for instance, a celebrity and then sell it.



# APPLICATION OF FRENCH INTELLECTUAL PROPERTY RIGHTS TO 3D PRINTING



When we print a 3D object, it's necessary to ask ourselves a few questions:

- If the object is protected, what rights do I have?
- What can I do and can't do?
- Who could be held responsible for counterfeit?
- Yet are there exceptions allowing me to print the objects I want?

These questions are explained below in order to help the user gain more insight into the risks and to remain vigilant while enjoying all the possibilities offered by 3D printing.

#### A. IF THE OBJECT IS PROTECTED, WHAT CAN I DO?

B. WHO CAN BE HOLD<br/>RESPONSIBLE FOR<br/>INFRINGEMENT ?1. PROVIDING DIGITAL FILES IN ORDER<br/>TO PRINT THE OBJECT2. PROVIDERS PRINTING THE 3D OBJECT<br/>(OR SCULPTEO'S ROLE)3. THE 3D OBJECT'S END USER

# A. IF THE OBJECT IS PROTECTED, WHAT RIGHTS DO I HAVE?

If an object is **protected** by one of the intellectual property rights, it is necessary to follow **2 conditions to** respect patrimonial and moral rights that right holders have their works. Failing that, a printed copy of the object can be illegal and reprehensible.

Fortunately, reproduction of a protected object is not enough to be considered a counterfeit. There are **exceptions** that will be explained right below.



Prior authorization from the right holder is needed in order to print their object and exploit it.



Denaturing the object during printing (altering its form without respecting the form chosen by its author, for example) and not mentioning the name of the right holder(s) is forbidden if there's no authorization.

# **B. RESPONSIBLE FOR INFRINGE-**



# A. IF THE OBJECT IS PROTECTED, WHAT RIGHTS DO I HAVE?

# **B. RESPONSIBLE FOR INFRINGEMENT**

Printing a 3D object requires the action of three persons:

- One to put the file allowing to print the object online,
- An intermediary provider who will print the object
- The end user who will be able to use the copied object.

Sometimes, the end user can also be the one putting the file allowing to print the object online, if they create their own object by designing it themselves.

In other cases, they can choose a pre-existing object obtained from a scanned object and then spread online, or designed by another web user straightaway. Sculpteo will print all the objects for them.

Also, because of their active behavior in the printing process, they all may be liable.

1. PROVIDING DIGITAL FILES IN ORDER TO PRINT THE OBJECT

2. PROVIDERS PRINTING THE 3D OBJECT (OR SCULPTEO'S ROLE)

**3.THE 3D OBJECT'S END USER** 

# 1. PROVIDING DIGITAL FILES IN ORDER TO PRINT THE OBJECT

#### 2. PROVIDERS PRINTING THE 3D OBJECT (OR SCULPTEO'S ROLE)

#### 3. THE 3D OBJECT'S END USER

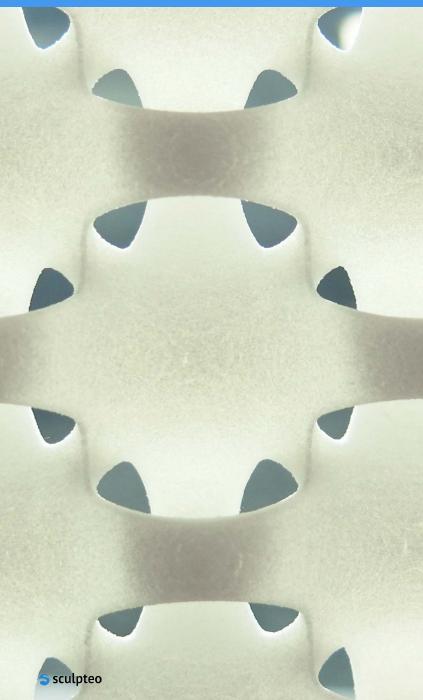
When copying a pre-existing object, you need to spend time on the source enabling printing the object to make sure it's not protected: the 3D file.

You can get a 3D file in two ways: after a pre-existing object has been scanned and created by a third party, or with a CAD software allowing the public to design one straight from a computer.

If the files are created by a web user straightaway

2 If the file comes from a scanned physical object

3 If the files come from a platform



# **1. PROVIDING DIGITAL FILES IN ORDER TO PRINT THE OBJECT**

# A. CREATED BY WEB-USER B. SCANNED PHYSICAL OBJECT C. PLATFORM

When a web user designs an object using a CAD software, they create an object which will then may be protected by intellectual property rights, respecting necessary characteristics to its protection.

The design can be protected by **copyright** by the mere fact of its creation if it's considered as original and if it has the imprint of its author's personality. It will also be by **design and model law**, if it has been registered with INPI and demonstrates the required criteria to its protection.

Using Sculpteo's service, the web user will then have to choose between making the **file public or keeping it private**.

If the user agrees to make it public, they give Sculpteo the right to use and copy the image of the object on their platform so **other persons can then select the file and print it.** 

On the contrary, if the web user wants the creation to **remain private**, it will be **kept confidential and will never be used**.

At all events, whatever the created object is, by accepting Sculpteo's general terms and conditions of sale and especially article 10, the web user promises to be the only intellectual property rights holder on this object and thus to not infringe the rights of third parties.



A. CREATED BY WEB-USER

**B. SCANNED PHYSICAL OBJECT** 

C. PLATFORM

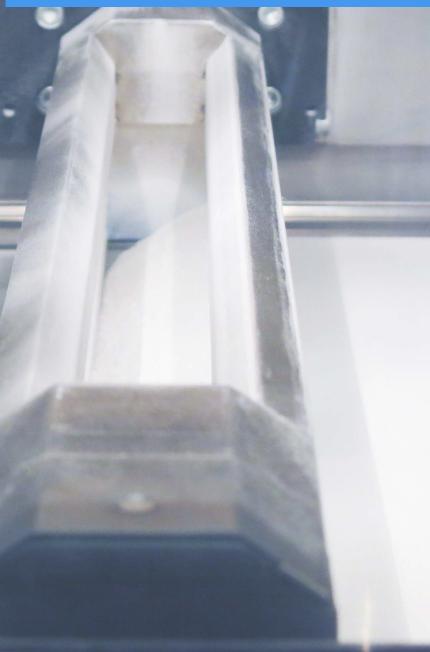
When a physical object is being scanned, it is getting dematerialized in order to be turned into a computer file that you will be able to send to other users.

In the area of law, copying a protected work is defined as *"fixation in material form of the work by any means, allowing to make it available to the public indirectly"*.

Acknowledgment of copy doesn't depend on the procedure or tools that were used and it has been admitted that scanning works (such as photographies) represents copying.

Article L. 122-3 of the Intellectual Property Code and article 2 of the EC Directive of May 22nd, 2001 2001/29/CE about harmonizing some aspects of copyright and ancillary rights in the information society. Judgement of the Paris Court of Appeal of September 26th, 2001, n° 1999/05665, n°1999/08920

Also, turning a work into a computer file making it go from material to immaterial may constitute copying. So you need to remember that you have to get the author's agreement when scanning a pre-existing object, otherwise you will be the author of an infringing copy.



#### **1. PROVIDING DIGITAL FILES IN ORDER TO PRINT THE OBJECT**

A. CREATED BY WEB-USER B. SCANNED PHYSICAL OBJECT C. PLATFORM

Unlike files that are created by web users straightaway, files that come from a catalog and were thus created by other persons **can be protected.** 

It is essential to check how legal the source is in order to be sure we won't print an infringing copy. To do so, you need to make sure:

- the object is copyright-free
- or the object doesn't come from an unlawful source if you think it's protected. An unlawful source would be, in this case, a file made available on a platform without the right holders' prior agreement.

For example, a file was made available by web users in the United States that allowed to print a smartphone case featuring the shape of the throne from the famous TV show "Game of Thrones". The printed phone case was the perfect copy of the original, and could be infringing if it had been obtained without explicit authorization of the production company that holds its copyright.

Whether is it by trademark rights, copyright, patent rights or design and model rights, most of them are protected and can't be freely copied.

Some platforms are completely transparent and indicate where the 3D file comes from as well as the legal context of its use. Is it an original creation? Does it have a copyright-free license for you to copy it? There are the questions you need to ask yourself when using this type of platforms.

Also, every web user who suspects that a file from the Sculpteo catalog could lead to infringing printing should let them know. Thereafter, Sculpteo is committed to quickly delete it from the catalog.

#### APPLICATION OF FRENCH INTELLECTUAL PROPERTY RIGHTS TO 3D PRINTING

#### 1. PROVIDING DIGITAL FILES IN ORDER TO PRINT THE OBJECT

2. PROVIDERS PRINTING THE 3D OBJECT (OR SCULPTEO'S ROLE)

#### **3. THE 3D OBJECT'S END USER**

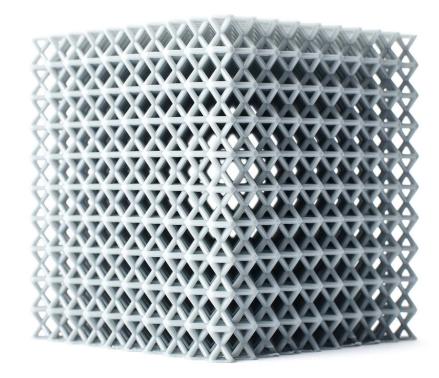
Sculpteo offers 3D object printing from suggested files or files chosen by the user. Sculpteo is known as the provider of the end user and doesn't have any choice in the selected files.

However, all companies such as Sculpteo that have an intermediary and service provider role as part of 3D printing may be liable for unlawful printing and thus illegal copy of existing objects.

To better understand to what extend, Sculpteo could be guilty of counterfeit - it is necessary to focus on the June 21st, 2004 law, aka the law on confidence in the digital economy (LCEN), which tells two types of platforms apart: publishers and hosts.

# Difference between host and publisher

Legal consequences



#### 2. PROVIDER PRINTING THE 3D OBJECT OR SCULPTEO'S ROLE

A. DIFFERENCE BETWEEN HOST AND PUBLISHER B. LE

**B. LEGAL CONSEQUENCE** 

**The host status** applies to websites whose role only consists of stocking or making content available to the public without making any editorial choice or selection.

Web users post content online - content that will then become available to everyone. Hosts only play an **intermediary role.** There is no choice and no change brought to the stored content on their part, and it's most widely admitted that they play a passive role.

**Publishers** have intellectual power on all content by selecting and choosing what is going online.

7

They play an **active role** by editing, formatting and creating content.

For example, Facebook offers technical means to spread information online and each user then posts the content they want (video, photo, etc...). Facebook is a host. Contrariwise, used goods e-commerce websites such as Ebay offer a control on published auctions, organize them and allow relevant keywords search. Those are **publishers**.



#### 2. PROVIDER PRINTING THE 3D OBJECT OR SCULPTEO'S ROLE

#### A. DIFFERENCE BETWEEN HOST AND PUBLISHER B. LEGAL CONSEQUENCE

*Article 6, I, 2 of LCEN grants hosts the benefit of a lighter responsibility.* Host don't have to monitor the content they transmit or store if they need to identify web users that have created the content they're hosting. They can't be held responsible for online content and especially if a file allows illegal use of a work, for instance.

However, their responsibility will be committed if it is attested that they were aware of the illicit nature of the posted content or if they haven't promptly acted to take the unlawful files down after they have been notified by web users.

On the contrary, because of their active role when choosing the content that is made available, publishers' qualified websites are directly responsible for content released to the public.

But in practice, differentiation between a publisher and a host remains quite vague and varies depending on how the judge interpret it. Therefore it is necessary to protect yourself from counterfeit risks as much as you can when some files are made public.

Because of its status, Sculpteo has an oversight and filtration role: it must refuse presence and printing of objects whose sale is regulated or dangerous (such as guns) or regarding goods protected by intellectual property rights and whose use has not been authorized by the right holders. Also, it is highly suggested to web users to let Sculpteo know about the existence of litigious content that will be deleted as soon as possible.

"Natural or legal persons that make content available to the online public by telecommunication services even if for free, sign, writing, image, sound or message storage of any kind supplied by the recipients of these services, can't have their responsibility committed because of their stored activity or information on request from a recipient of these services, if they had not known about their illicit character or facts and circumstances letting this character show or if, from the moment they have known about it, they've quicklyacted to delete this data or to forbid access".

#### APPLICATION OF FRENCH INTELLECTUAL PROPERTY RIGHTS TO 3D PRINTING

#### 1. PROVIDING DIGITAL FILES IN ORDER TO PRINT THE OBJECT

#### 2. PROVIDERS PRINTING THE 3D OBJECT (OR SCULPTEO'S ROLE)

**The object's end user** is the *person by who the object is printed for and who will exploit it.* Printing an object means copying, which may characterize counterfeit if it hasn't received **prior approval**.

If so, it is necessary to check where the source allowing 3D printing comes from:

- if the file has been created by a web user, the latter can freely print and exploit the object
- if the file has been created by another web user and made available on Sculpteo's catalog, the user can freely print the object.
- if the file is a scanned version of a pre-existing object, it is important to check that the object is not protected by one of the intellectual property rights and that it can be freely copied after you have obtained the concerned persons' authorization.

Article 10 of Sculpteo's terms and conditions of sale (http://www.sculpteo.com/fr/terms/)

However and fortunately, in some cases, simply copying an object that is contrary to the intellectual property rights is not enough to call it an act of infringement.

Under French law, "the private copying exception" principle allows everyone to freely copy an object protected by one of the intellectual property rights, only if this copy is to be used in a private setting and is not made to get any commercial gain.

Also, the author of a work can't forbid its copying:

- if the copy has been made from legal source
- and if it is strictly used by the copyist.
- At all events, the copy mustn't conflict with the normal exploitation of the work or unreasonably prejudice the legitimate interests of the author.

Article L. 122-5 of the Intellectual Property Code

In order to know if the exception for private copying applies to digital models and 3D objects, it is necessary to draw a distinction between a user printing an object in a professional framework or for his personal use.

#### 3. THE 3D OBJECT'S END USER

# Professional users



#### **3. THE OBJECT'S END USER**

#### A. PROFESSIONAL USERS

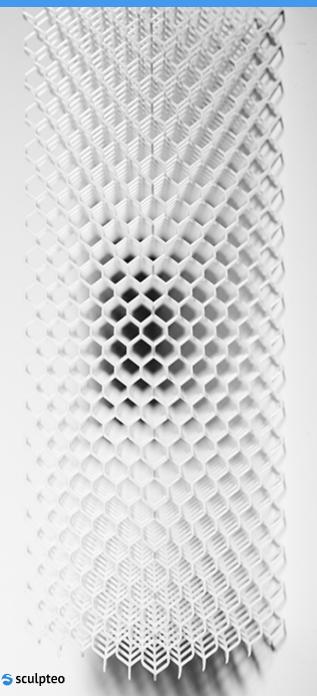
**B. PRIVATE USERS** 

If a person prints an object to use it within a professional framework, they must obtain the right holder's prior agreement. If they don't, it will always be an act of infringement because the private copying exception principle doesn't apply within the business world.

Besides, there's a risk relating to product liability legislation if the printed product is being sold. This notion can ground for liability on the part of the user because of a security breach on one of their products leading to personal damage. It's a strict liability, irrespective of fault and contractual nature of the link between the victim and the person responsible of damage. The only condition is that the defective product has been put into circulation and marketed.

Articles 1386 and next of the Civil Code

Also, printing a toy in order to market it then is dangerous since toys have to follow some certified standards. It is necessary to be careful and make sure all quality and security guarantees are respected - if they are not, your responsibility could be committed.



#### **3. THE OBJECT'S END USER**

#### A. PROFESSIONAL USERS

#### **B. PRIVATE USERS**

On the contrary, the private copying exception principle allows everyone to copy and thus print an object protected by intellectual property rights, if the copy of this object is only being used in a private context.

Also, when it comes to copyright, article L. 122-5 of the IASC explicitly allows an user to copy an original work if the latter is only being used by the user for his personal use.

However, it is necessary to meet the three-step test, which is a concept introduced in 1971 by the Berne Convention in order to limit the extend of copyright exceptions.

It forces the use of private copy to follow three cumulative conditions:

- the original work must have been acquired in a legitimate way
- and copying must not conflict with the normal exploitation of the work
- and copying must not unreasonably prejudice the legitimate interests of the author.

The three-step test has also been integrated into the Directive 2001/29 CE of May 22nd, 2001 about harmonizing some aspects of copyright and related rights into information society.

In trademark law, a 3D mark can be printed and copied freely **if it's not being exploited for business purposes**.

Judgement of the Court of Cassation, commercial chamber, of May 10th, 2011, n°10-18173

The same goes to design and model rights - article L. 513-6 of the intellectual property Code allows all copying of an industrial design or model if the latter is being used:

- for private purposes and not commercial ones
- or for experimental purposes
- or for illustration or teaching purposes

However, it's necessary to mention the registration and the right holder's name when using them for illustration, teaching or experimental purposes.

Finally, when it comes to patents, article L. 613-5 of the intellectual property Code allows printing and exploiting a patent if:

- the copy is for private purposes and not commercial ones
- or if it is being used for experimental purposes
- or if it is being used for an implementation study for a medicine as well as the necessary acts to realize them and getting authorization.

# TO SUM IT UP

# Distinguish 2 situations

I DESIGNED THE OBJECT I WANT TO 3D PRINT	I DIDN'T DESIGNED THE OBJECT I WANT TO 3D PRINT
I can freely print it for any purpose	It's a 3D Design from Sculpteo's catalog
Be careful if you decide to market it - the object has to present all the necessary quality and security standards, which you can find in theory in all products that are available on the market.	I can freely print it and exploit it. If I want to market the object, it is necessary to contact the right holder because the latter has not explicitly agreed to it. A financial compensation may be requested
I am the right holder on the object & the 3D prints	I want to print and copy an existing object.
Under these conditions:	I need to get the right holder's prior agreement.
<ol> <li>The design can be protected by copyright.</li> <li>The aspect of the object can be protected by the design and model law.</li> <li>The object can be protected by patent law.</li> </ol>	If I can't get it, I can either scan a physical object or use a 3D file. In every case, I need to get the right holder's agreement. Unless, the 3D file has been legally obtained, and if the printed object is used for private purposes only.
I can benefit from the following prerogatives:	If I send Sculpteo an image copying the object which I'd like a physical copy of, I have to make sure this image comes from a lawful source.
<ol> <li>My express authorization is needed when copying/ spreading the design for public and commercial purporse</li> <li>My authorization is needed when printing the object, unless the latter is only being used for private purposes.</li> <li>I can either make the image available to the public by allowing the object to be printed on Sculpteo or to keep it private. Sculpteo will commit to keeping it private and to never disclose it. If I want to make it public, I am granting Sculpteo the right to use and copy the image of the object on its platform, in order for other people to be able to select the file and then print the object</li> </ol>	For instance, it needs to have been bought on another platform offering all the necessary guarantees, or I need to get the original creator's agreement to copy it. I'll be able to print a copy if and only if I only use it for private purposes and not for business ones. At all events, if I find out that an image available on Sculpteo's catalog could lead to infringing copy printing, it is important to report it.

# **3. EXCEPTIONS**

In some cases, some objects can be copyright-free even if they are protected. They can then be freely copied and printed without needing any right holders' agreement.

Exploitation of these copyright-free objects is useful and inexpensive since no financial compensation is needed for normal exploitation of the copied object. Then, it becomes possible to print a copyright-free object in order to use it to make a product that will then be marketed.

We suggest you use as many copyright-free objects as possible so you can hedge against infringement risks.

# Free licenses



Work that has entered the public domain





#### **3. EXCEPTIONS**

#### A. FREE LICENCES

#### **B. WORK THAT HAS ENTERED THE PUBLIC DOMAIN**

Free licenses *are non-exclusive copyright disposal agreements granting some fundamental freedoms to their users. They defend* Freedom of use, change, redistribution and publishing.

The works in question are still protected and their author retain ownership. However, it can be freely copied, modified, spread or print and that is even for commercial purposes. The author grants authorization and it is not necessary to ask for permission before using their work.

However, be careful - this concept of "freedom" can be confusing. Since the author still owns their work, **they still benefit from some rights**. Also, the concept of "freedom" doesn't necessarily mean **"free of charge"**. A work under free license is not necessarily available for free and conversely, a work available for free is not necessarily free.

It is possible the author decides that his work needs to be bought beforehand so then they can benefit from the right to exploit it for free. The concept of "freedom" doesn't lead to a total freedom for the user.

Since the work is property of its author, you must respect the author's moral rights when using it. Also, the user who is printing an object that benefits from a free license in order to use the copy again, modify and then market it will have to mention the original work's creator's name.

In practice, we suggest you to use images that benefit from a free license in order to print the object. Potential infringement risks will be avoided and the printed object can be freely exploited - if you decide to market it , don't forget to mention the copyright-free image's owner's name that was used to print the object.



# **3. EXCEPTIONS**

#### A. FREE LICENCES B. WORK THAT HAS ENTERED THE PUBLIC DOMAIN

A work enters the public domain when its protection expires.

For exemple, copyright wise, a creation is protected until seventy years after its creator's death. The monopoly to exploit this work ends, and it can be legally copied and released. Then, it is no longer necessary to ask the right holder's prior agreement to reproduce or represent the work.

Article L. 123-1 of the intellectual property Code

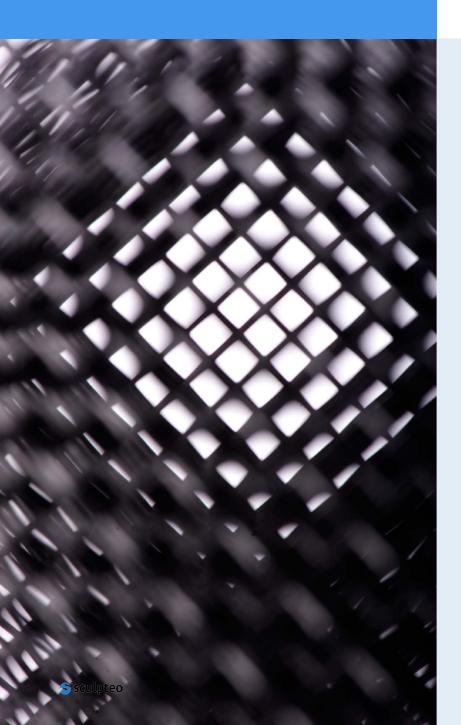
There is no record listing all the works that have entered the public domain. Thus you need to know the exact date by which the rights expire. If a work has been created by several authors, there are 3 possible situations:

- A joint work is the result of a joint authorship between different authors. The work will enter the public domain seventy years after the last surviving author's death.
- A collective work has been published by a person (natural or legal), under their name and direction. The work will enter the public domain seventy years after the year following the date of publishing.
- A composite work has been created by different existing works without the joint collaboration of the authors. The rights expire when all the works composing the composite work have entered the public domain.

In practice, to print a character from a novel, it is necessary to obtain express agreement from the publishing house that holds rights on the novel.

If the novel has entered the public domain, it is possible to print the figurine and exploit it freely with mentioning the author's name. However, make sure the novel has not then been turned into a movie adaptation that would still be subject to copyright. In this case, it will be necessary to respect the right held by the production company.

# **3D PRINTING AND US RIGHT**



The US are a constitutional federal republic. And, unlike French law, it is necessary to take into account the federal law that applies to all the States and the local law that applies to each State and can vary from a State to another.

The US legislation of intellectual property right is directly authorized by the Constitution when it comes to copyright and patents. As for trademark law and other forms of intellectual property, legislation is performed in the context of trade regulation.



#### 3D PRINTING AND US RIGH

# 1. COPYRIGHT

#### **THE COPYRIGHT ACT**

Under the Copyright Act, all work fixed on a tangible support is protected by copyright if it is original by its mere existence.

#### SIMILARITIES WITH THE FRENCH LAW

The US copyright law, just like in France, protects literary, musical, audiovisual works as well as designs, photographies, sculptures, architectural works, etc... If works of applied art (ex: toys or lamps) are traditionally protected by model patents, it is possible to make them benefit from an accumulation of model patent protection using the the practical additions and copyright for aesthetic parts.

#### REGISTRATION

No registration prerequisite is required in copyright but yet there is an Office registering works and allowing their creator to claim their right ownership. This registration may be useful to the author who has committed the violation.

The United States Copyright Office

#### WHICH PROTECTION ?

Copyright entitles its holder and beneficial owners to copy, deliver or represent their work and this until seventy years after the author's death.

Copyright is notably renowned for promoting progress rather than protecting existing creations. Accordingly, the US give a minimum moral right to the authors, opposite to the French approach that focuses on the protection of pre-existing works.

(Sector)

# 2. PATENT



#### THE PATENT ACT

Protection by patents in the US is regulated by the Patent Act. Unlike France, there is no list of inventions that are not eligible for patent protection, excluding those that are against public order or morality. Also, in principle, as soon as in invention presents a social utility, it can be patented.

#### REGISTRATION

An office called the US Patent and trademark Office (USPTO) registers patents and give their holders protection. The length of protection is twenty years from the first deposit date - subject to maintenance fees being paid. But unlike France that provides rights to the first person applying for a patent, the US law protects the first creator, who has a grace period of one year to register the invention.

#### **TYPES OF PATENT**

US law uses two main types of patents:

- **Utility Patent** that protects the process features, machines or manufactured products
- **Design Patent** that is granted to new, original and adorning designs or models of a manufactured product.

#### PATENT PROTECTION CONDITIONS

- **Novelty:** the invention is not known from the public and had not been registered beforehand.
- Utility: a special benefit is expected from the invention
- **Non-obviousness:** the invention must not have been created in an obvious way by a person skilled in the competent art.
- Achievability: the invention needs to be achievable

# **3. INDUSTRIAL DESIGN AND MODELS**



# **DIFFERENCES WITH FRENCH RIGHT**

Unlike French law, US law doesn't specifically foresee protection for industrial designs and models. They can however be protected, according to their characteristics, by patents if they adorn a manufacturing article, by copyright or by trademark law as trade dress.

#### **3D PRINTING AND US RIGHT**

# 4. TRADEMARK

#### THE COMMON LAW

Unlike the other intellectual property rights, trademark law mostly arises from the common law and varies a lot from a State to another. Also, in order to make it all easier, a manual is often published by the USPTO to describe all the laws and regulations that need to be respected during registration of a trademark and then its exploitation.

Trademark Manual of Examining Procedure (TMEP)

#### **REGISTRATION**

Trademarks are protected thanks to a federal registering system, codified in the Lanham act. Same as patents, they are registered with the USPTO that grants the holder an exclusive protection on the whole US territory. *Title 15, chapter 22 of the United States Code* 

#### PATENT PROTECTION CONDITIONS

As in France, to be valid, a trademark needs to be:

- Distinctive: it must not be the common designation of the products which it has been registered for.
- Lawful: some signs like the US flag or federal emblems are excluded from the protection
- Available: it must not be identical or similar to a pre-registered trademark or even that was previously used in trade.

# APPLICATION OF US INTELLECTUAL PROPERTY RIGHT APPLIED TO 3D PRINTING



Application of US intellectual property right in the context of 3D printing is not very different from French law. In this part, we are going to explore what are the main common aspects and the few differences.

A. OBLIGATION OF GETTING THE RIGHT HOLDERS' INTELLECTUAL PROPERTY AGREEMENT

B. WHO CAN BE HOLD RESPONSIBLE FOR INFRINGEMENT ? **1. ABOUT SCULPTEO'S RESPONSABILITY** 

2. APPLICATION OF THE FAIR USE CONCEPT

#### A. THE RIGHT HOLDERS' INTELLECTUAL PROPERTY AGREEMENT

Each person who holds intellectual property rights has some exclusive enjoyment on the concerned goods. They are then free to authorize or forbid all work exploitation.



Also, an object that we want to print may be protected by Copyright as well as an Utility Patent, Design Patent or 3D trademark. Thus it is necessary to be vigilant when it comes to risks of infringement.

Except for copyright, the other intellectual property rights are only protected on the territories in which they were registered, except in some cases.For instance, an invention created in the US must be registered in the concerned industrial property offices in order to be protected in Europe.Otherwise, the patentee won't be able to oppose its reproduction in the countries in which it's not protected.

# **B. RESPONSIBLE FOR INFRINGEMENT**



# APPLICATION OF US INTE

# A. THE RIGHT HOLDERS' INTELLECTUAL PROPERTY AGREEMENT



# **B. RESPONSIBLE FOR INFRINGEMENT**

Printing a 3D object requires the action of three persons:

- One to put the file allowing to print the object online,
- An intermediary provider who will print the object

• The end user who will be able to use the copied object. Sometimes, the end user can also be the one putting the file allowing to print the object online, if they create their own object by designing it themselves.

In other cases, they can choose a pre-existing object obtained from a scanned object and then spread online, or designed by another web user straightaway. Sculpteo will print all the objects for them.

Also, because of their active behavior in the printing process, they all may be liable.

#### ABOUT SCULPTEO'S RESPONSABILITY

#### THE FAIR USE CONCEPT

sculpteo



#### ABOUT SCULPTEO'S RESPONSABILITY

#### THE DIGITAL MILLENIUM COPYRIGHT ACT (DMCA)

When it comes to copyright, the Digital Millenium Copyright Act (DMCA) has been adopted in order to adapt all existing rules to digital environment. Like in France, intermediary service companies such as Sculpteo have their responsibility supervised in case of infringement. The DMCA limits responsibility of their service-provider intermediaries under certain conditions. It is valued:

- according to the type of activity pursued
- to the technical role undertaken.

#### **DMCA'S EXEMPTION**

To benefit from this exemption, the host mustn't have known about the infringing aspect of the information being hosted or not be aware of the facts making the activity obviously illicit. Alternatively, they must quickly delete the controversial content as soon as they know about it (notice and takedown regime) and not receive payment coming directly from the infringing activity when this provider has the right and possibility to control this activity. Moreover, the provider has to adopt and set up a charter anticipating the cancellation of the subscription of persons repeatedly committing infringing acts online and need to adapt to technical standards used by the copyright holder to identify or protect their works.

#### NOTICE AND TAKEDOWN PROCEDURE

In order to be exempted from their responsibility, the host has to follow these three obligations:

- delete and make unavailable the litigious content as soon as a right holder notifies them
- identify the user who uploaded this content
- end the contractual relationship connecting them to recidivist users



Any work exploitation required prior agreement from its author. But the Fair Use concept permits exemption from this rule in US law.

Criteria of Fair Use are stated in title 17 of the US code, section 107

When we blame a person for copyright infringement, they can defend themselves by demonstrating they have aFair Use of the work and is released from its obligation of prior authorization.

Unlike French law - in which exceptions are strictly defined by the intellectual property Code - US law doesn't grant big enough criteria allowing courts to decide if the work follows Fair Use or not.

Also, to determine if the use of a work represents a fair use, it is necessary to take into account:

The aim and nature of use of the work copy

The nature of the protected work

The used part in reference to the whole protected work

The effect on the value of the original work



#### THE FAIR USE CONCEPT

#### THE AIM AND NATURE OF USE OF THE WORK COPY

We evaluate the intent and motivation of the use of copy so we know if it's of commercial or educative nature, and not for profit. The more the person exploiting the work will want to profit, the more their action will be potentially qualified as infringement. Otherwise, in case of commercial exploitation, the Fair Use concept may be recognized if the work is used for critic, comments, journalistic information, teaching or academic research.

#### THE NATURE OF PROTECTED WORK

The more creative the work, the stronger the protection - and the less the use will be considered as fair. Also, let's say an art work is entitled to a very strong protection because of its great originality. Its use will hardly be defensible and will be less considered as a fair use than less original works and so less protected.

#### VALUE OF THE USED PART IN REFERENCE TO THE WHOLE PROECTED WORK

We need to take into account whether the work has been reproduced as a whole or not, and what parts of the work were exploited. If it's just a small part of the work, then its borrowing will probably represent a fair use. On the contrary, an important use will hardly be defensible.

#### NOTICE AND TAKEDOWN PROCEDURE

It takes into account the consequences due to the use of the copied work, on the potential market or on the value of the protected work. For instance, printing a figurine of the Eiffel tower and give them out near a souvenir shop which sells the same figurine may certainly affect the shop's sales.

You need to think about the harm caused by the author of the copy but also about the possible consequences of the same behavior followed by other people. This criteria is not limited and American judges have a broad discretionary power so they can adapt their decisions according to evolutions of technology.

# TO SUM IT UP

# In practice, application of US law when it comes to 3D printing isn't very different from French law

# **PROPERTY RIGHTS**

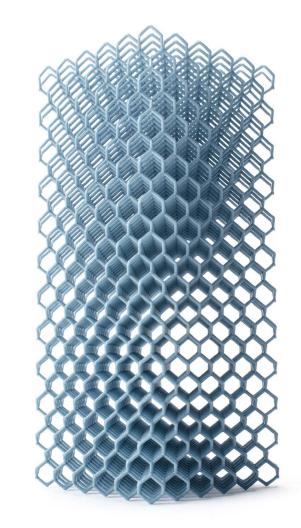
It is necessary to check if the object that we want to print is not protected by one of the intellectual property rights.

- If it is, it is important to obtain the right holders' prior agreement.
- If you fail to get it, you can't print it or copy it to use it fairly.
- Sculpteo will have a limited responsibility but must and is committed, like in France, to swiftly delete any litigious content as soon as notification is received.

### THE FAIR USE CONCEPT

The main difference with French law is regarding to the Fair Use concept. Exceptions to copyright are more widely interpreted in the US than in France. In some cases, it would be likely that the use of an object protected by copyright could be printed and used again in the US, according to the Fair Use, but it would be considered infringement in France.

However, it is necessary to be vigilant about infringing risks, whether you are in France or in the US by reporting as many illicit files as you can to Sculpteo, by choosing copyright-free objects printing or by respecting the fact that printed objects will not be used for private purposes.





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