



# Move

# & Act

**Empower Youth through  
Entrepreneurial and  
Digital Skills**

WP2.1 An open  
guide with new  
and innovative artistic  
techniques and activities



**Co-funded by  
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## CONTEXT

Grant agreement	2022-1-PL01-KA220-YOU-000086569
Programme	Erasmus+
Action type	Cooperation partnerships in youth
Project acronym	MOVE & ACT
Project title	Empower Youth through Entrepreneurial and Digital Skills
Project starting date	2022-10-01
Project duration	30 months
Project end date	2025-03-31



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# Introduction

The social distancing and isolation during the pandemic, revealed a great demand for young people to stay connected with other peers, to interact, to keep on developing professional skills, creativity and imagination. Young people in many countries were confined to their homes and, for many of them digital technologies and arts, were the only way of expression and connection with the outside world.

The MOVE&ACT project is a Creativity Booster for young people, especially young people with disabilities, migrants and ethnic minorities and NEETs (Not in Education, Employment or Training), which will encourage them to interact, through artistic expression, cultivate positive thinking and energy and develop at the same time innovative digital skills.

Steve Jobs famously said, “(...)technology alone is not enough—it’s technology married with liberal arts, married with the humanities, that yields us the results that make our heart sing.” Even though art and technology at first glance seem to be on opposite sides of the spectrum, they both explore creativity and are the way to express yourself.

The world of imagery and has artmaking process have changed quickly over recent years. Never before the way in which visual artists create images has changed so fundamentally. And never before people have been exposed to so many different images and styles- the scale of enhancement of technology and media into work processes is a greater upheaval than other epochs we’ve known.

The first televirtual art installation “The Tunnel Under the Atlantic,” was made by Maurice Benayoun in 1995. It established a link between Montreal and Paris, two towns physically distant by thousands of miles. Since then, the use of computers, modern technologies, and virtual reality are revolutionizing world of art.

In this guidebook, you can find 14 examples of new and innovative artistic techniques and activities, accessible to everyone. Each partner of the Consortium contributed with two cases of new artistic techniques of artistic activities integrating technology. Experimenting with unique elements instead of sticking with what's conventional works wonders and can even lead to creating novel form of arts. Let's try to explore how the use of technology can affect the artmaking process positively.



# New artistic techniques in the Visual Arts



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# Technique 1: AI (artificial intelligence) generated art.

Prepared by: OPEN EUROPE

## Name of the technique

AI Art Generator/ AI artwork creation tool / AI image generation / text-to-image diffusion model / text-to-image AI

## Short description of the technique

An AI (Artificial Intelligence) system that can create hyper-realistic images/graphics and artwork from any text input. In other words, a description (prompt) in natural language (as opposed to artificial language or computer code) becomes a work of art in about 10 seconds.

How does it work? These apps make image-text pairs which results in the creation of an image that came from a database of millions of publicly available images on the internet.

## Equipment/materials/tools/software needed

Equipment needed: Computer (with internet access)

Materials: N/A

Tools: The following examples are web applications that run in your browser. All you have to do is describe what you want and the app will create the image. Most apps allow you to download your artwork, in other cases, the image is stored on the server of the app itself.

Free tools that require registration, invitation and/or ID verification:

- Dall.e (invitation and possible waiting period)
- Midjourney (via the chat app Discord)

Free tools that do not require registration:

- Hotpot (AI art generator)
- Stable Diffusion



Prompt (Dall.E): “Mona Lisa, pastel colours, Mexican Muralism”



Prompt (Stable Diffuser): “Albert Einstein, 3D render, colourful, cartoon”



Prompt (Hotpot): “The Scream, black and white, Picasso style”

Most of these tools are free, up to a point. For example, Hotpot lets you create five images per day for free and at Dall.E lets you make 50 creations (they call it credits) in the first month and 15 every month thereafter.

### Useful tips/suggestions for working with this technique

As already mentioned, these are text-to-image tools. The more precise you are in your description (prompt), the better results you will get.

A “prompt” is a sentence of 60 to 400 characters that describes the image you want to see. However, some applications only need three words to create an image.

Who should formulate a prompt? It is best to formulate your prompt in English. Start the sentence with a subject and then list positive or negative qualities using variables of nouns, adjectives, styles or colours. You can also use commas (,), pipes (|) to separate ideas

Here are some examples

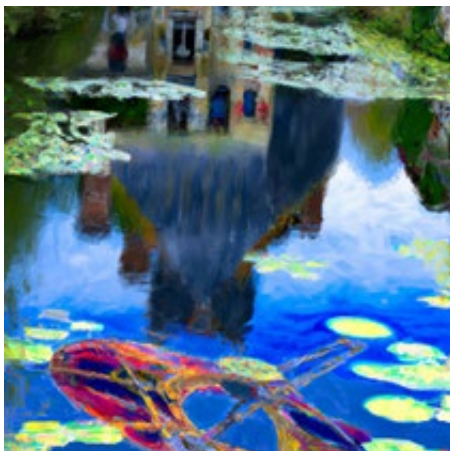
[subject] by [artist], [detail], ..., [detail] OR [phrase] [subject detail] [random\_artist]  
[random\_style]

Look at the following example(s)

- 1) [Spacecraft] in a [majestic] [mediaeval town] by [Monet]



- 2) Spacecraft by Monet, mediaeval town



Last but not least, all of these apps have terms of use and a code of conduct that expects respectful behaviour. Please do not use these tools to create images that could “inflammate, upset or cause drama”. Most tools have NSFW (not safe for work) filters that either warn you when you use “sensitive” words (e.g. “female” or “body”) or block the words that could lead to the creation of violent images, pornography or images that may infringe corporate copyright.

## References:

*Edwards, B. (2022, 6 September).* With Stable Diffusion, you may never believe what you see online again. Ars Technica. Retrieved from: <https://arstechnica.com/information-technology/2022/09/with-stable-diffusion-you-may-never-believe-what-you-see-online-again/>

*Midjourney. (2022, November).* GitHub - midjourney/docs: Source for Midjourney's official wiki. GitHub. Retrieved from: <https://github.com/midjourney/docs/>

*Monigatti, L. (2022, 7 October).* A Beginner's Guide to Prompt Design for Text-to-Image Generative Models. Medium. Retrieved from: <https://towardsdatascience.com/a-beginners-guide-to-prompt-design-for-text-to-image-generative-models-8242e1361580>

*Parsons, G. (2022, 1 July).* Ultimate guide to DALL·E 2: how to use it & how to get access Everything you might want to know about Open AI's DALL-E 2, the revolutionary new AI artwork creation tool. dallery.gallery. <https://dallery.gallery/dall-e-ai-guide-faq/>

*Roose, K. (2022, 2 September).* AI-Generated Art Won a Prize. Artists Aren't Happy. The New York Times.

## Technique 2: Scrapbooking & Quilling

Prepared by: Foundation IRIS

### Name of the technique

Scrapbooking and quilling

### Short description of the technique

Scrapbooking is a method of preserving, presenting and arranging personal and family history in the form of a book, box or card. Typical memorabilia include photographs, printed media, and artwork. Scrapbook albums are often decorated and frequently contain extensive journal entries or written descriptions.

This crafting and documenting activity involves taking books with blank pages and adding photos, memorabilia, journaling, and embellishments. The primary purpose of scrapbooking is to preserve memories for future generations, but a secondary purpose often is to exercise your creativity as you display your memories in a scrapbook.

Quilling is an art form that involves the use of strips of paper that are rolled, shaped, and glued together to create decorative designs. The paper is rolled, looped, curled, twisted, and otherwise manipulated to create shapes that make up designs to decorate greetings cards, pictures, boxes, eggs, and to make models, jewellery, mobiles, etc.

Quilling starts with rolling a strip of paper into a coil and then pinching the coil into shapes that can be glued together. There are advanced techniques and different sized paper that are used to create 3D miniatures, abstract art, flowers, and portraits among many things.

## Equipment/ materials/tools/software needed

Basic supplies for scrapbooking include a scrapbook (it can even be a notebook with blank pages), scissors, decorative papers, glues, stickers. Other embellishments can also be used to create one-of-a-kind scrapbook pages along with special pens and markers to add handwritten notes.

There are seven most important and basic supplies you need:

1. Cardstock – a solid heavyweight paper that is a staple in any kind of paper crafting activity;
2. Paper – it's essential to use high-quality patterned paper for your pages, which has various designs, usually in shapes and patterns;
3. Adhesives – liquid glue, tape runner, glue dots, glue stick, glue pen, etc.;
4. Embellishments – chipboard stickers, alphabet stickers, word stickers, themed or decorative stickers, journaling cards, enamel dots, tags, die-cuts, ribbon, wood veneers, epoxy buttons and many more.
5. Scissors or Trimmers, or any kind of cutter.
6. Binding or Album – you can either have a ready-to-use album or figure out a way to bind pages. The most popular way to compile pages is with a D-ring or three-ring binder album.
7. Scrapbook pens – black or blue fine point pen, gel pens to add some sparkle or cute and colourful doodles, fine-tipped alcohol marker pens to add some calligraphy-like style, etc.

**Quilling** is the art of creating intricate designs from simple rolled paper shapes. Some necessary quilling supplies are paper strips, a quilling board, a quilling tool, some glue, a piercing tool, and toothpicks.

Beginning quilling can be accomplished using only strips of paper, a toothpick, knitting needle or similar object, and some glue. If you liked the technique, you can invest in proper quilling tools to make your job that much easier.

1. Paper quilling strips – pre cut paper designed especially for quilling. The advantage of using pre-cut paper is that your paper strips will always be the same width and of course you will also save time when using this type of paper.
2. Slotted Tool – this tool is a handle with a comfort grip that has a slotted metal piece at the top to insert your paper strips and then twists them into circular shapes. This tool makes it easier to control and roll your paper strips.
3. Tweezers – they are handy for holding your quilled shapes together while you are applying glue.
4. Needle tool – a handle with a comfort grip that has a needle on one end. This tool is useful for applying glue to the ends of your paper strips.
5. Circle sized ruler – a ruler that has various sized holes in the middle. Place your rolled paper coil into a hole and get an accurate measurement.
6. Curling coach – this tool is similar to the sized circle ruler. It makes the job of curling paper easy. It is especially useful when used in conjunction with the slotted tool.
7. Crimper tool – it adds some crimped texture to your paper strips.
8. White glue – most common is ordinary PVA glue.

### **Useful tips/suggestions how to work with this technique**

#### Scrapbooking:

- Scrapbooking improves creativity – the more albums you make, the better you'll get at layouting, design, and colour theory. It's all about experimenting and seeing what works and what doesn't.
- Don't hesitate to challenge yourself. If you're short on scrapbook and craft supplies, try to see what you can do with a simple pair of scissors, and different types of scrapbook papers. Add cute custom scrapbook stickers, sweet anecdotes, and memorabilia to add flavour to your photos.



- Making an album can be therapeutic in more ways than one. It can lower your stress and anxiety levels just by helping you get your mind off things for a while. Add some comfort food and calming music on the side and you will definitely feel relaxed while working on your project.
- Paper pads can be single-sided or double-sided – it's better to opt for double-sided pads.
- Patterned papers can be used as embellishments or as a background. Each paper's beautiful patterns and designs can be cut out and used as decorative elements on a page.
- Reuse, reuse, reuse! There's a reason why the word "scrap" is in "scrapbook". Never hesitate to reuse those paper scraps! You can turn them into an embellishment or even make confetti out of them.

#### Quilling:

- Start with the basic shape, i.e. the rolled circular paper coil. Build upon this basic shape as you master the skill further to create a variety of shapes like the teardrop, paisley, marquis, slug or tulip. You can pinch, squeeze, and adjust the tension of the rolled paper coil until you get the quilled shape you desire.
- When you reach the end of your paper strip, take it off the tool. Make sure you don't wind it too tightly, else you may find it a bit tricky to take it off the tool.
- If you want to make a loose coil shape, you can let the paper coil expand before remove it from the tool but if you want a tighter coil, don't let it expand before you take it off.
- Once you have created the interesting shapes, go ahead and play around with them.
- Get a bit more adventurous and use your quilled shapes in combination with other paper crafts to create even more interesting pieces of decorative or gift items. Scrapbooking and quilling work together perfectly.

## Video/photos with example of piece of work

Scrapbooking:



image: Freepik.com



image: Freepik.com



image: unsplash.com



image: pexels.com



Videos:

<https://www.youtube.com/watch?v=oNhy23Bqjfc;>

<https://www.youtube.com/watch?v=Eu0lzAuRAdg.>

## Quilling:



image: <https://liveyourpassion.in/self-interest/art/Quick-Tips/7-tips-for-Quilling-for-Beginners-221>



image: <https://liveyourpassion.in/self-interest/art/Quick-Tips/7-tips-for-Quilling-for-Beginners-221>



image: <https://liveyourpassion.in/self-interest/art/Quick-Tips/7-tips-for-Quilling-for-Beginners-221>



image: <https://liveyourpassion.in/self-interest/art/Quick-Tips/7-tips-for-Quilling-for-Beginners-221>



image: <https://liveyourpassion.in/self-interest/art/Quick-Tips/7-tips-for-Quilling-for-Beginners-221>



Videos:

[Paper Quilling for Beginners | Paper Crafts;](#)  
[20 Paper Quilling Flowers Tutorial | How to make](#)

## References

<https://altenew.com/pages/all-about-scrapbooking;>

<https://altenew.com/pages/different-types-of-paper-crafting-tools-and-their-purpose;>

<https://liveyourpassion.in/self-interest/art/Quick-Tips/7-tips-for-Quilling-for-Beginners-221;>

<https://www.thesprucecrafts.com/the-art-of-paper-quilling-4046023;>

<https://www.thesprucecrafts.com/what-is-scrapbooking-2960505;>

<https://en.wikipedia.org/wiki/Quilling;>

<https://en.wikipedia.org/wiki/Scrapbooking.>

## Technique 3: Resin flow art

Prepared by: Foundation IRIS

### Name of the technique

Resin flow art

### Short description of the technique

Resin art is one of the most diverse mediums of art out there, both as a stand-alone art form and as a means of supplementing other disciplines such as installation art, painting, and even furniture design.

Generally speaking, resin art is anything created through the use of combining some resin and hardener for purely aesthetic purposes. This solution is often poured into a mould of your choice and allowed to cure, the mould is then opened and the casting is extracted leaving you with a positive impression of the inside of the mould. Essentially, it functions as a super high-quality means of replicating a shape, figurine, toy, piece of jewellery, coasters, and many other possible shapes.

Flow art, also known as fluid art or pour painting, is a technique that uses a liquid art material's natural flow to create an abstract design. In resin flow art, layers of tinted resin are poured in an organic pattern onto a surface creating a colourful, finished piece of artwork with endless possibilities. Resin flow art is easy, fun and the results are stunning, even for beginners.

## Equipment/ materials/tools/ software needed

To create most of a resin flow workarts you will need:

- epoxy resin;
- liquid colourants;
- a spreader to blend your tinted resin;
- nitrile gloves;
- plastic mixing cup;
- small plastic cups and stir sticks, enough for each colour of tint;
- a plastic drop sheet to line your work surface;
- a torch;
- dust cover large enough to cover your piece.

To, for instance, create a resin flow art tray you will additionally need a metal tray. On the other hand, to create a resin flow art panel you will additionally need a wood art panel and painter's tape to create a lip if your panel doesn't have one.

## Useful tips/suggestions how to work with this technique

Assemble your materials before you start.

Gather your tools so that everything is at hand before you start, including your dust cover.

Keep your background in mind when composing your design and choosing your colour palette: for example, if your background is white, you can get away with translucent colours whereas a dark or metallic background will get best coverage from opaque colours.

Prepare the resin and tints Measure equal amounts, by volume, of resin and hardener and mix thoroughly for at least 3 minutes, scraping the bottom and

sides of the mixing container as you go. Divide the resin equally among small plastic cups, allowing one cup per colour. Shake the resin colourant bottles well and use a few drops to tint each cup of resin, mixing well after each addition. Don't be afraid to mix and match to achieve the colours you wish to use.

**Pour the resin** Start with your darkest colour first and pour on the side of the tray closest to you. Next, pour the brightest colour on the opposite side. Use a spreader or tilt the tray to move the tint around and change the shape. Next, add a middle colour alongside – apply some on the tray and overlap some on the dark colour. Finally, fill in the empty space with gold for instance. Use a torch to remove bubbles and allow the resin to sit for about 15 minutes before you blend.

**Create your design** Ensure the resin has had a chance to sit and thicken for 15 minutes before you start to create your design. If you try to blend right away, the resin is too fluid: you'll end up with muddy colours and you'll lose your design. Gently run a spatula through the resin to create a pattern, blending the colours organically. Use slow movements, but don't be afraid to dig a little deeper to pull the colours out so that they can blend. Because the resin has thickened, it will keep the shape you create.

**Torch, cover and wait** Lightly run the torch over your design one more time to remove any remaining bubbles. Cover your piece with a dust cover and allow it to cure for 24 hours until it's dry to the touch.

Your artwork is finished.

### **Video/photos with example of piece of work**



image: <https://www.artresin.com/blogs/artresin/how-to-make-resin-flow-art>





image: <https://artincontext.org/resin-art/>



Videos:

<https://www.youtube.com/watch?v=7byPuhRgUNo>

## References

<https://acrylgiessen.com/en/resin-epoxy-art-basics-for-your-first-steps-in-resin-art/>;

<https://artincontext.org/resin-art/>;

[https://www.artresin.com/blogs/artresin/how-to-make-resin-flow-art](https://www.artresin.com/blogs/artresin/how-to-make-resin-flow-art;);

## Technique 4: Pyrography

Prepared by: **Spółeczna Akademia Nauk**

### Name of the technique

Pyrography

### Short description of the technique

Pyrography is a relief printing technique of decorating with burning design marks into wood or other materials with the controlled application of a heated instrument. The term “pyrography” is described as “writing with fire”, from the Greek *pur* (fire) and *graphos* (writing). It is also known as pokerwork or wood burning, however woodburning is technically done on wood, whereas pyrography can be done on any receptive surface (including wood). In many European countries like Poland and Romania pyrography has been a traditional folk art.

The first fire art of this kind was practised in ancient Egypt and Africa. They simply used pieces of metal heated in a fire to decorate wood or leather with works of art and writing. With the arrival of electricity and the invention of the first soldering iron, by Hans Sachs, the metal tip heated by fire was replaced. Not long after, the industry developed special devices for pyrography, the so-called branding irons. For some years now there has been a wide range of different wood burning tools, which can be adapted to the most diverse needs with temperature regulation and exchangeable burning loops (metal tips). Today, this is done mostly by using specialised burning or pyrography tools. However, there are other methods some people still use.

## Equipment/ materials/tools/ software needed

As mentioned above, specialised modern pyrography tools are most popular nowadays. Traditionally, pyrography was performed with simpler methods like using a metal implement heated in a fire, or even concentrating sunlight with a magnifying lens. Some other methods, like chemical burns, torches or gunpowder were also used, but they are far more dangerous. Fortunately, nowadays we can create the same effect in a safer way.

Modern pyrography equipment allows to achieve a large range of tones and shades. They can be divided into three main categories. Varying the type of tip used, the temperature, or the way the iron is applied to the material all create different effects.

### Solid Wood Burners

Also known as solid tips- are similar in design to soldering iron. They have a solid brass tip that is heated by an electrical element and operates at a fixed temperature.

### Wire-Nib Burners

Wire nibs are quite popular, as they do have a variable heat control so you can change the temperature. The wire-nib is heated by an electric current, passing directly through it. Some models provide different interchangeable nibs, which create various effects. This option is more for the advanced user who wished to apply finer details. These types of pyrography tools also heat up and cool down faster and are also lighter in weight.

### Laser cutters

Laser cutters are a more expensive method and use lasers to scorch the material instead of cutting all the way through it. Many laser cutters provide software facilities to import pictures and transfer them onto a surface. In fact there is no real skill needed when using a laser cutter, because you set the machine to do the work for you. Some laser systems are sufficiently sensitive to perform pyrography on thin cards or even paper.

To begin the adventure with pyrography you can get a simple pyrography pen. As pyrography requires some specialised equipment, but this is quite compact it's

one of the reasons for its growing popularity amongst amateur craftspeople.

The next step is to decide on what surface you want to create your art. Both burning onto leather and art of wood-burning are popular choices. Besides those, you can also choose other materials such as cork, bones, gourds (a type of plant, usually from the family Cucurbitaceae, which once dry have a hard skin) or clay.

For beginners, wood is supposed to be the best choice. Look for a piece with the correct texture as well as grain. You need a wood surface that has tight pores and a smooth surface area. Remember that any uneven surface will make it difficult to draw or burn shapes. Many excellent tips about choosing proper piece of wood and about preparing the surface You can find here: <https://emptyeasel.com/2009/10/23/pyrography-and-woodburning-an-introduction-to-the-art-of-drawing-with-fire/>

Last but not least- you need to choose the pattern You want to create. Patterns in pyrography may be figurative or geometric, folksy or historical, flowing or regimented. It's up to You and your imagination. You can simply go freehand and design your own image, use stencils, apply various designs or transfer the image onto the wood surface with tracing paper.

### **Useful tips/suggestions how to work with this technique**

Wood Burning art is quite simple but it requires some practice, which is one of the first tips. Take some scrap pieces of wood and try! You need to test out the correct pressure needed and get comfortable with the pyrography pen you are using. Moreover:

- Begin with softwoods (pine, cedar, and aspen) which are easy to burn on.
- Do not hurry- woodburning is slower than normal drawing
- To achieve the outcome you want, you must have patience.
- As the right tools always help make learning easier, ensure a good quality pyrography kit.
- Start simple, get comfortable with the whole process, and then try to move to more difficult design

- Always follow all safety guidelines, because you are working with very hot equipment. Make sure to keep the tools away from children and pets and be careful around the hot tips. Keep everything away from the heated tips, including anything that may hang, like a necklace or your hair! Do not leave the tool unattended, always switch it off if you are not using it.
- Check the surface you are working on; you do not want any toxic fumes from treated wood or leather
- The surface you choose to work on must be stable- you do not want the hot tool falling onto your new carpet.

### **Video/photos with example of piece of work**

Example of pieces of work by Anna Bogacz





Wood burning for beginners (pyrography) - how to get started:

<https://www.youtube.com/watch?v=D9f4uowGsdo&t=64s>

## References

Carver K., Pyrography and Wood Burning: An Introduction to the Art of Drawing with Fire

<https://emptyeasel.com/2009/10/23/pyrography-and-woodburning-an-introduction-to-the-art-of-drawing-with-fire/>

Best Wood for Wood Burning – Exploring the Art of Wood Burning, 2022

<https://artincontext.org/best-wood-for-wood-burning/>

Pyrography – A Deep Dive Exploration of the Art of Wood Burning

<https://artincontext.org/pyrography/>

Wood Burning Art – Complete Guide on How to Wood Burn

<https://craft-art.com/wood-burning-art>

## Technique 5: Fractal Art

Prepared by: Społeczna Akademia Nauk

### Name of the technique

Fractal Art

### Short description of the technique

Fractals are the combination of mathematics and art. They are never-ending, complex patterns that are described as “self similar” across different scales. It means their complexity is consistent no matter how much you magnify an area of them. Fractals are created through the repetition of a simple process. Found throughout nature, these self-similar patterns are fascinating and have a wide range of applications. Scientists have noticed patterns that were repeated in elements of weather and wildlife such as leaves (they have veins that branch out into different patterns), flowers ( have layers of petals that are also arranged in a specific pattern), astronomical concepts like gas clouds, accurate representations of coastlines, snowflakes (when you examine them under a microscope you can see the crystal formation) and much more.



Source: <https://aiartists.org/fractal-art-generators>



This is an example of a fractal: each level of scale, the pattern looks similar. The more you zoom in, the more you see the same pattern. The same thing happens when zooming out. In maths and physics, fractal structures have a similar physical appearance at all levels of measurement. Also artists noticed the mathematical beauty of fractals and their hypnotising power. Fractal art is a form of algorithmic art. It has been developing since the mid-1980s onwards. Fractal art is about calculating fractal objects and representing the calculation results as still digital images or animations. It is a genre of computer art and digital art which are part of new media art.

The word “fractal” was firstly used by Benoit Mandelbrot in 1975

### **Equipment/ materials/tools/ software needed**

All designs in Fractal Art are:

- Self- similar
- Psychedelic
- Intricating
- Vividly coloured
- Complex

Fractal art is rarely painted or drawn by hand, instead being generated with the use of fractal-generating software. This process happens in three phases:

1. Setting the parameters of the appropriate fractal software
2. Executing the potentially long calculation
3. Evaluating the end result

On the Internet You can find many examples of fractal art generators. AIArtists.org published a comparative article about free and paid software, with its features and technical requirements.

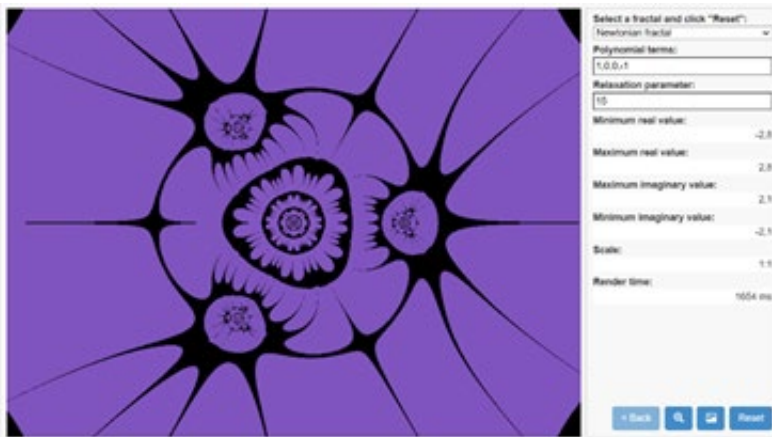
Read more here: <https://aiartists.org/fractal-art-generators>

## Useful tips/suggestions how to work with this technique

- Even you though you hate maths... You may love what can be created using geometric patterns- just try!
- Use the software that suits you. On the beginning You can even try to do Fractal Art in Paint: Drawing Fractals in Under 5 Minutes <https://www.youtube.com/watch?v=sFEYQMrWNHU>

## Video/photos with example of piece of work

Fractal art created in online generator:



Examples of fractal art:

<https://youtu.be/leeSNdPTDCA>

## References

Taylor R., Fractal patterns in nature and art are aesthetically pleasing and stress-reducing, (2017) [https://theconversation.com/fractal-patterns-in-nature-and-art-are-aesthetically-pleasing-and-stress-reducing-73255?xid=PS\\_smithsonian](https://theconversation.com/fractal-patterns-in-nature-and-art-are-aesthetically-pleasing-and-stress-reducing-73255?xid=PS_smithsonian)

Ultimate Guide to Fractal Generators, <https://aiartists.org/fractal-art-generators>  
<https://nnart.org/what-is-the-most-famous-fractal/#References>

<https://nnart.org/history-of-fractals/>

<https://www.youtube.com/watch?v=sFEYQMrWNHU>

## Technique 6: Eco-aware recycled plastic art

Prepared by: Association Social Hub

### Name of the technique

Eco-aware recycled plastic art

### Short description of the technique

HDPE is often thrown away because it is not always economical to recycle due to its low yield. In this eco-aware art technique, we include not only the artistic part, but also the awareness rising part and young artist can express their interest in environmentally friendly lifestyle by using creativity.



In a nutshell, this is a technique to reuse plastic by using thermal compression and convert it to an art. Or into reusable material from which it can become the part of a nice purse, wallet, shopping bag, etc. Something expressing the artistic soul of the carrier. It is very easy to make it, but it takes time and effort to collect colourful pieces of used plastic, create designs, shred it, or cut it into pieces, cut out letters, pictures, anything you see relevant to your final idea.

Steps of activity:

- 1) Take a sheet of baking paper as big as You wish Your art piece to be (try not to exceed the size of the heat press, If You use one, when using iron, the size is unlimited)
- 2) Cover the baking paper with plastic – it is going to be a background for your masterpiece, so choose colours wisely.



3) Then, design other layers and add more plastic pieces on the background layer. Keep in mind that some pieces are transparent (or let us say – many), so you will see other pieces through them. You can use paper glue to stick the pieces in the places You want them to prevent fall-off.



4) When Your art piece is done, cover it with another sheet of baking paper, and take it under the heat press or iron it. Created reused plastic material is waterproof, solid but can easily be cut, reshaped, sewed, etc. Basically, it can replace textile or leather.



## Equipment/ materials/tools/ software needed

Heat press or an iron; used plastic bags (high-density polyethylene (HDPE) works best, but You can use LDPE as well), baking paper, paper glue, scissors

## Useful tips/suggestions how to work with this technique

This technique can be applied in different ways – from the simplest: already prepared plastic pieces can be provided for people with more severe disabilities to create art and as a motoric therapy; to the more advanced way: an artist can use digital technologies as Adobe Photoshop, take pictures of the small pieces, add them together, make transparent, and design the result before making it.

## Video/photos with example of piece of work



## Technique 7: Visual Vernacular

Prepared by: Associazione Ergon a favore dei sordi

### Name of the technique

Visual Vernacular acronym VV

### Short description of the technique

The Visual Vernacular is a visual art form that is part of deaf culture and the term was coined in 1960 by deaf actor Bernard Bragg.

The Visual Vernacular is a visual storytelling technique and its name is composed of two parts: "Visual," as it is an artistic technique that draws its origins from the deaf community, and the adjective "Vernacular," which is derived from the word "vernacular" and indicates the speech characteristic of a specific area and is similar to a dialect.

This artistic technique is used by artists, who are currently mostly deaf, to tell stories in a "cinematographic" way, and the viewer feels as if he or she is watching a scene from a film, and during his or her performance the artist tells his or her story while standing at a fixed point on the stage. In addition, through the use of various techniques, such as zooming or varying rhythm and being a technique that draws its origins from the deaf community, the various stories are depicted through the use of intense body movements, iconic symbols, classifiers, gestures and facial expressions.



## **Equipment/ materials/tools/ software needed**

You need to be creative and nothing else

## **Useful tips/suggestion how to work with this technique**

In order to be able to use this technique, it is not necessary to know Sign Language, but it is necessary to be gifted in theatrical activity. Instead, it is necessary to be gifted with great imagination, fantasy, rhythm and to train oneself to develop the ability of visual expression.

## **Video/photos with example of piece of work**

[Game Over](#)

[VISUAL VERNACULAR \(VV\) "AVE"](#)

[\[VV - Visual Vernacular\] Soffione/Overhead](#)

[The Pilot & The Eagle](#)

## **References**

Visual Vernacular An Inter and Intra Sign Language Poetry Genre Comparison

<https://studenttheses.universiteitleid.nl/access/item%3A2629234/view#:~:text=Visual%20vernacular%20is%20a%20form,a%20most%20expressive%20story-telling%20style.>

# Artistic activities which use digital technologies



# Activity 1: 3D printed fashion (jewellery and clothes)

Prepared by: OPEN EUROPE

## Name of the technique

3D modelling and 3D printing (also known as Fused Deposition Modelling or Fused Filament Fabrication)

## Short description of the technique

Technology has opened new avenues for artistic exploration. 3D printing has become a new creative outlet for entrepreneurs and/or artists with endless design possibilities, given the right skills and tools. Despite the wide range of applications this technology offers (and its use in a wide range of fields such as medicine, engineering among others) this document will focus on jewellery and garment making. However, before anything it is important to bear in mind that for both of these purposes, there are two different processes involved: Designing (3D modelling) and printing (FFF 3D printing). However, this does not mean that they are mandatorily linked to each other.

## Equipment/ materials/tools/ software needed

First is **3D modelling**, which in short is the creation of digital, three-dimensional graphics. Applications include, for example, the creation of renders of lifelike buildings/spaces or even detailed 3D characters for films or video games. 3D modelling is not easy to use and there is a considerable learning curve since most 3D modelling software programs on the market require formal training to learn how to use them. Despite this, software programs like **Sculptris** do not require extensive training and are user-friendly.

Second is **3D printing**, a process in which 3D objects are created (printed) layer by layer. There are several methods of 3D printing, but the **extrusion method (Fused Filament Fabrication technology)** is the most affordable, as most products using this technology are consumer-oriented. In fact, you can find a 3D printer for as little as 200 EUR. The process involves heating a thermoplastic material (which comes in the form of spools) and forcing it through a heated nozzle that moves on an X and Y-axis.

Useful tips/suggestion how to work with this technique

As said before, these two processes can complement each other. You do not necessarily have to design something in a 3D modelling programme to print it, and you do not have to print the 3D model you designed. For example, there is a huge range of 3D files that can be downloaded and printed. The website **“Thingiverse”** offers many of these ready-to-print files for free (**both fabric for garments or pieces of jewellery**).

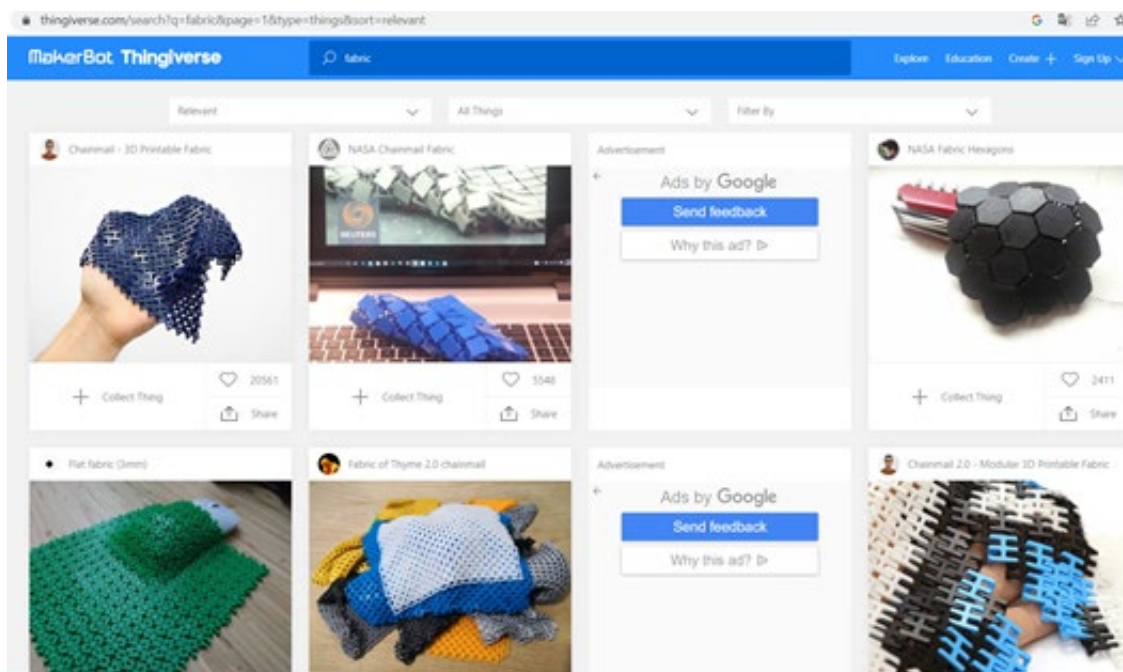


Image 1: Thingiverse – fabric. <https://www.thingiverse.com/search?q=fabric&page=1&type=things&sort=relevant>

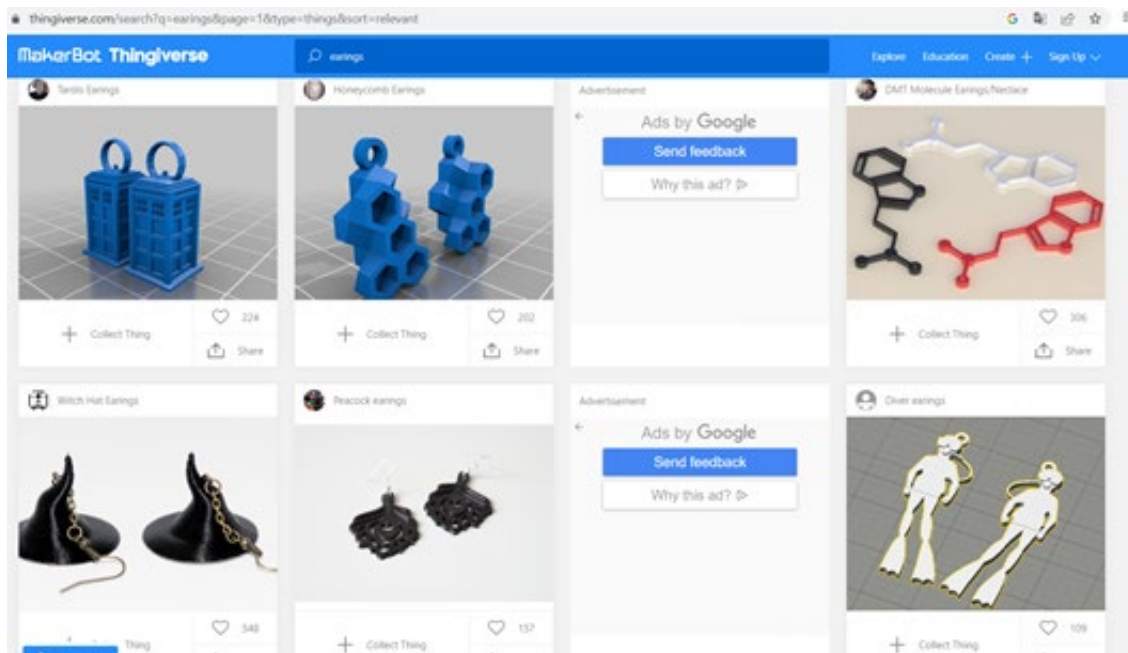


Image 2: Thingiverse – earrings (jewellery). <https://www.thingiverse.com/search?q=earrings&page=1&type=things&sort=relevant>

Similarly, as for garments specifically, there are specialised garment design programmes/software that allow designers to create 3D models of their patterns (e.g. CLO). This helps to reduce fabric waste in the production of physical samples of their designs.

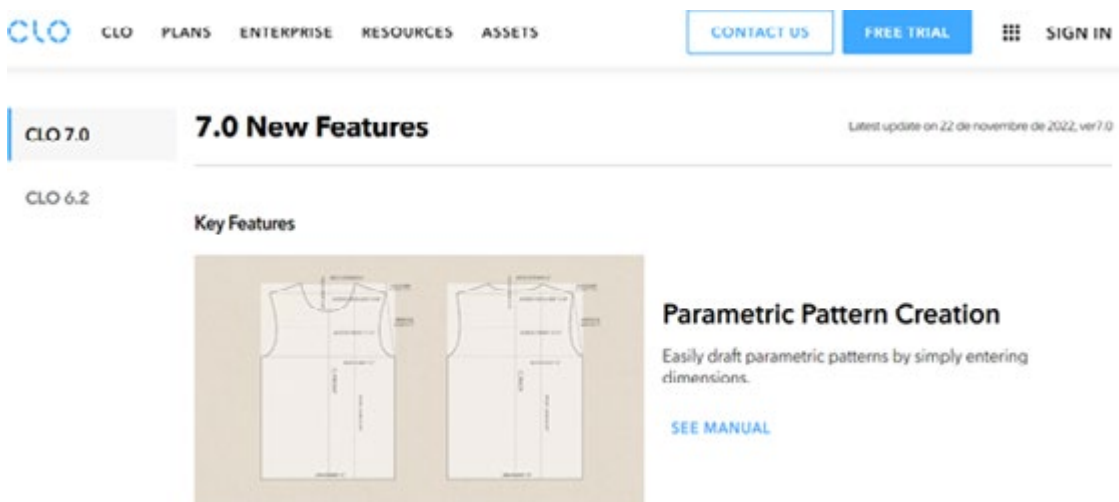


Image 3: CLO Software for garment pattern design. <https://www.clo3d.com/en/clo/features>

In summary, if you want to dive into this world, for 3D modelling you can start with the two programmes mentioned before (Sculptris) or try the free trial version of the software CLO if you are interested in garment design. As for 3D printing, once you get your hands on a 3D printer, you can start printing models downloaded from Thingiverse to familiarise yourself with the process and try out different thermoplastic materials, for example. If you are not able to buy a printer, do not worry because there are many online platforms for 3D printing (e.g. i.materialise) where you can upload your 3D model and they will print it for you.

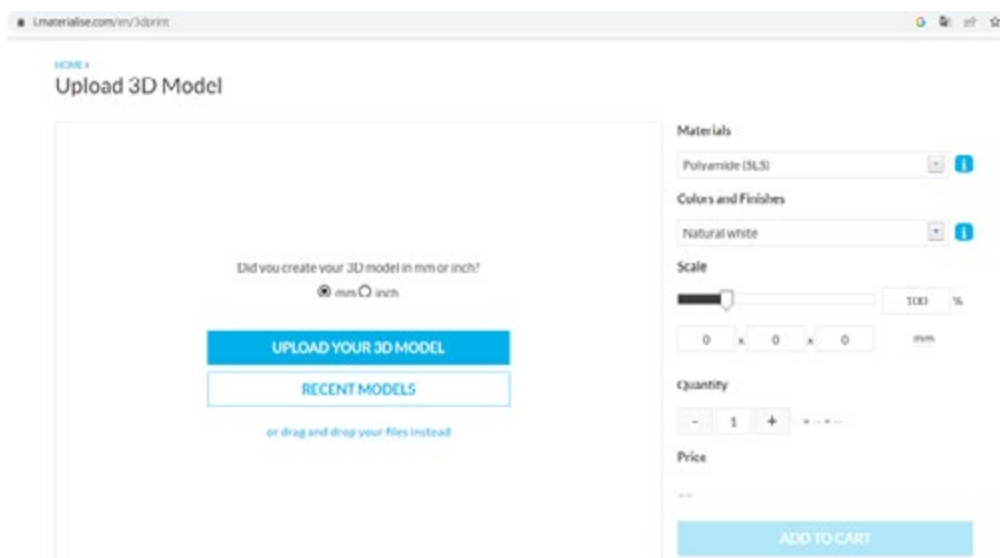


Image 4: i.materialise printing service. <https://i.materialise.com/en>

## Video/photos with example of piece of work

For more inspiration, check out these entrepreneurs.

3D Printed Fashion (Instagram account: sew printed)

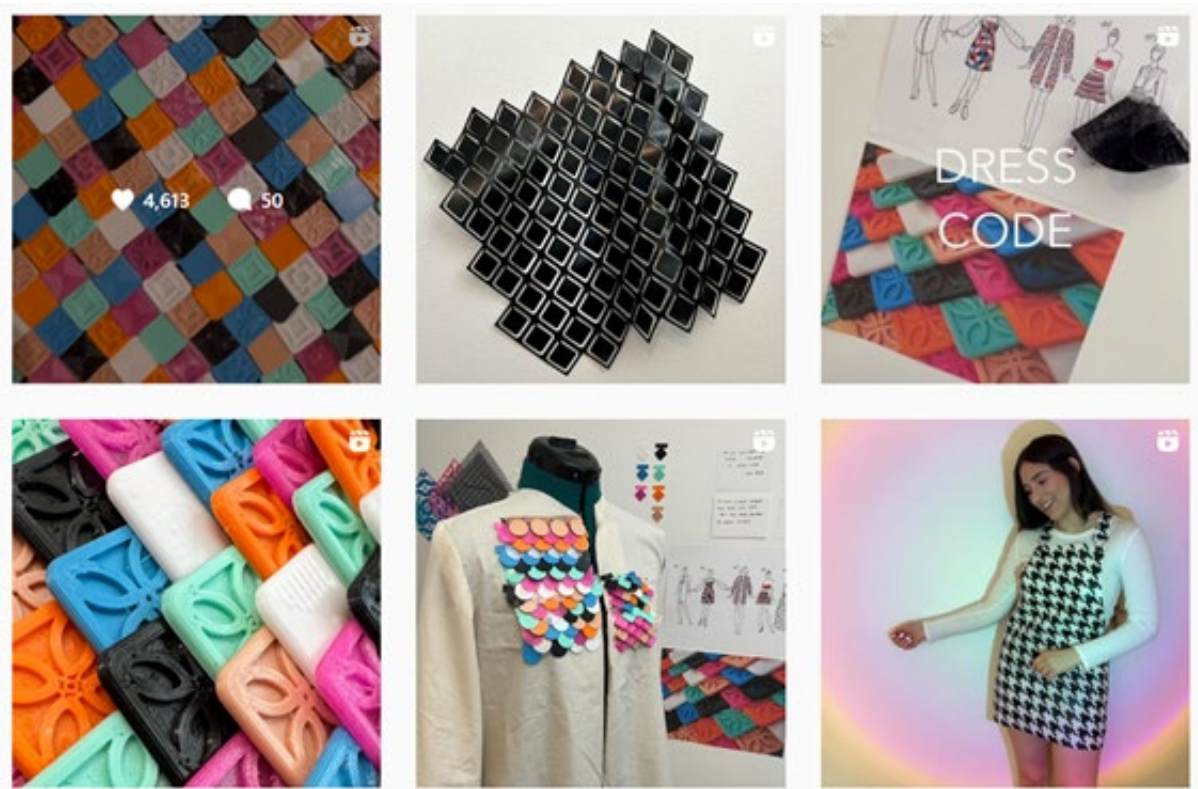


Image 5: sewprinted -[https://www.instagram.com/reel/ChdQ8rRAVwT?utm\\_source=ig\\_web\\_copy\\_link](https://www.instagram.com/reel/ChdQ8rRAVwT?utm_source=ig_web_copy_link)

### 3Dgarmentcreating (professional services)

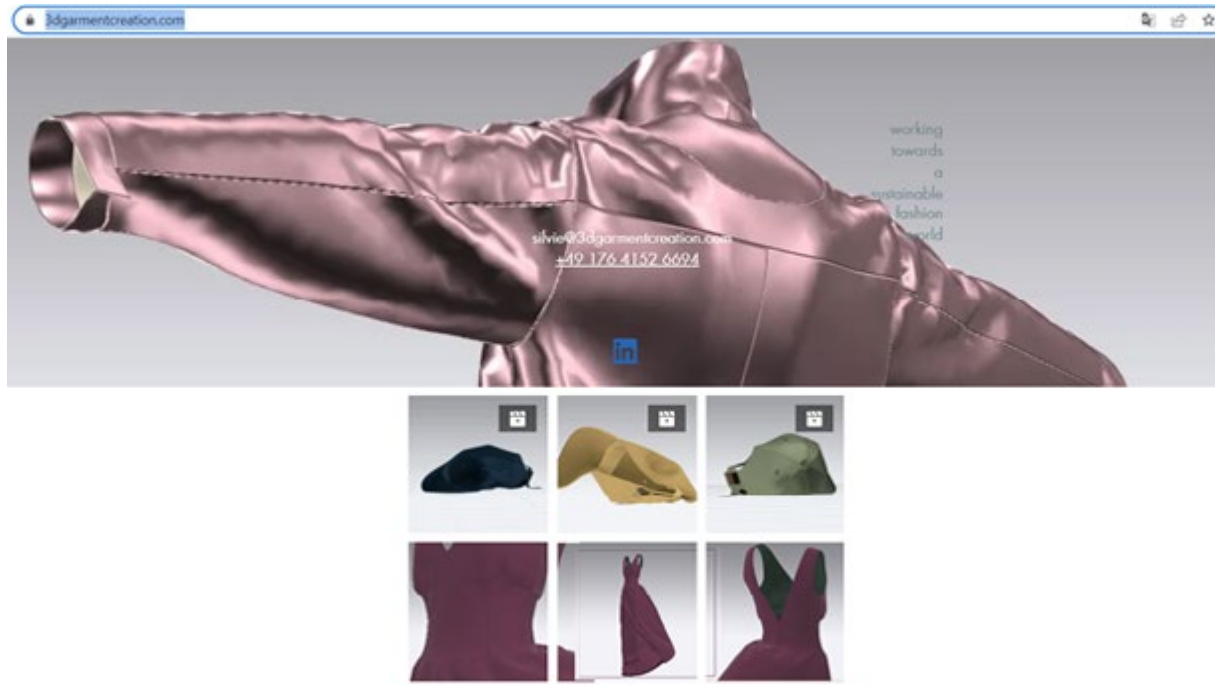


Image 6: 3Dgarmentcreation - <https://www.3dgarmentcreation.com/>

### RaboDesigns – 3D printed earrings (Etsy shop)



Image 7:- RaboDesigns - Etsy España. [https://www.etsy.com/es/shop/RaboDesigns?section\\_id=38300606](https://www.etsy.com/es/shop/RaboDesigns?section_id=38300606)



## Rentaro - 3D printed necklaces (Etsy shop)

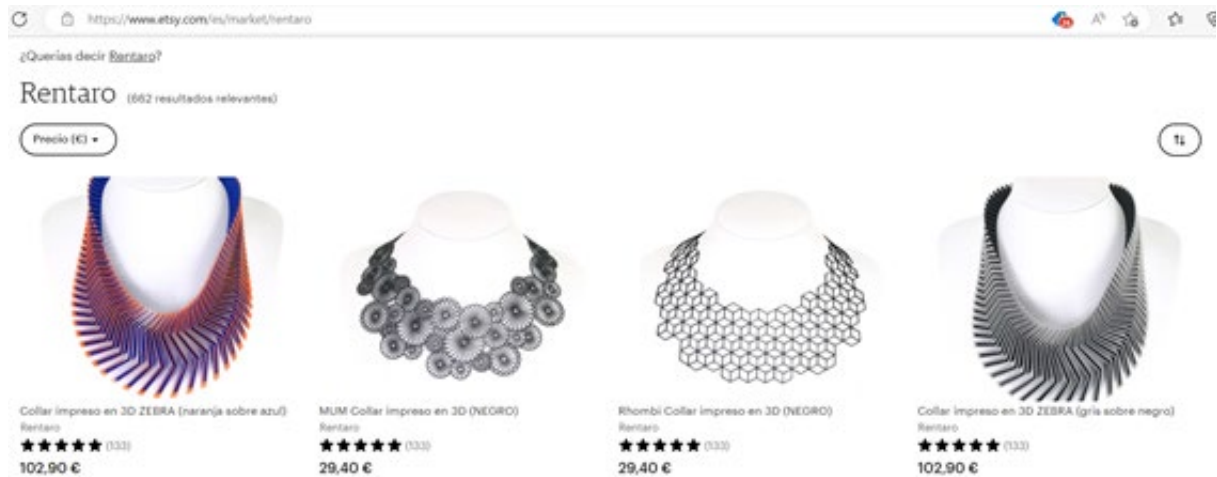


Image 8: Rentaro - Etsy España. <https://www.etsy.com/es/market/rentaro>

## References

Foyr. (2021, 18 March). 9 Different Types of 3D Modeling for Designers | Foyr. Create Beautiful 3D Designs. Retrieved from: <https://foyr.com/learn/types-of-3d-modeling/>

Slick, J. (2020, 24 September). 3D Modeling Process Defined. Lifewire. Retrieved from: <https://www.lifewire.com/what-is-3d-modeling-2164>

## Activity 2: Lithophane technique – 3D printed photographs

Prepared by: e-Nable Greece

### Name of the technique

Lithophane

### Short description of the technique

The word “lithophane” translates from its Greek origin as “to appear in stone”. In the Western world, lithophanes were first created by porcelain craftsmen about the 1820s but there is some dispute over who first created the process. Some historians place France at the head. Other site Prussia as the leader. There is also a theory that lithophanes were invented in China almost 2,000 years prior to their appearance in Europe.

Recently lithophanes have been made with the use of CNC machines and 3D printing, starting with the shades of a black and white photograph used to generate a heightmap surface, which is then used to mill or print a solid object from a semi-translucent material.

Lithophanes are essentially embossed photos generated by a 3D printer. The print results don't show much at first, but shine some light through one and you'll be amazed by the details. The way it works is that light passes through the thin parts while being blocked by the thick parts. In this way, the differences in light bring out the details of the image.

## Equipment/ materials/tools/ software needed

First of all, you need a **software**. There are two ways to convert a digital image file into an appropriate file for 3D printing (Stl format file). First option is by using a Slicing software. One of the most popular slicing software is Cura, by the Dutch 3D printer company Ultimaker.

There are positives and downsides to using Cura to create lithophanes. On the one hand, the software is easy to use and fast, but you have less control over the process, and the software lacks more advanced options such as adding frames to your images or moulding them into different shapes. All things considered, however, Cura is still a great option for beginners. You can download Cura slicer software here: <https://ultimaker.com/software/ultimaker-cura>

Second option is using a browser-based image-to-lithophane converter. There are a lot of such converters in the internet. Most of them are browser-based services that will convert your image into an STL file for you. There are multiple options, such as 3DP Rocks, ItsLitho, and Lithophane Maker.

Generally, they all work the same way. You upload your image, choose the shape, or frame you want, then download the STL file to your computer. You find these converters in the following links:

- <https://3dp.rocks/lithophane/>
- <https://tool.itslitho.com/CreateModel>
- <https://lithophanemaker.com/>

Secondly you need a **3D printer**. 3D printers — which act somewhat similarly to traditional 2D inkjet printers — use a layering method to create the desired object. They work from the ground up and pile on layer after layer until the object looks exactly like it was envisioned. You need a simple FDM printer. Fused deposition modeling, or FDM for short, is a material extrusion method of additive manufacturing where materials are extruded through a nozzle and joined together to create 3D objects.

A typical FDM 3D printer, therefore, takes a polymer-based filament and forces it through a heated nozzle, which melts the material and deposits it in 2D layers on the build platform. While still warm, these layers fuse with each other to eventually create a three-dimensional part.

Generally accepted as the simplest way to 3D print stuff, FDM is accessible, reasonably efficient, and widely popular. FDM printers dominate the 3D printing market, and you can find a simple, cheap 3d printer from 200 euros.

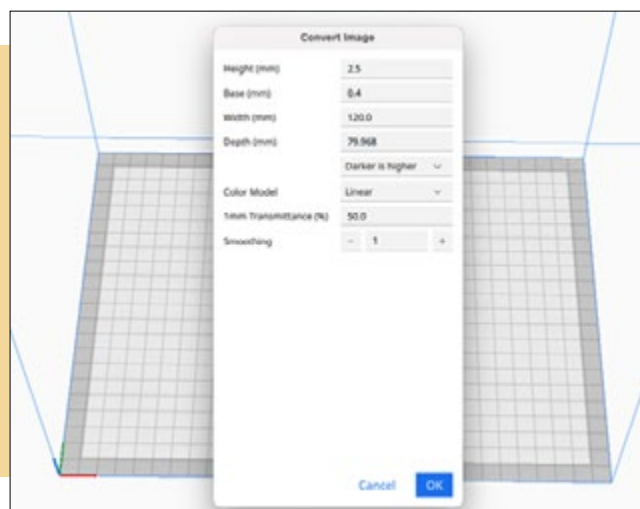
### Useful tips/suggestion how to work with this technique

1st option: Use the Cura slicer software.

To get started, ensure that you have the image you want to turn into a lithophane saved on your computer.



Launch Cura, then import the image by selecting “Open File(s)...” from the File menu. A pop-up window appears with a variety of settings that will impact how the image appears when it is printed.



This is where all the magic happens:

- **Height:** This is what we would normally call the thickness of the model. While you can make it as tall as you want, we would recommend not going over 5 mm, as that would greatly increase print time.
- **Base (mm):** The base is what the image will be printed on. The height will be added to the base. Think of it as the foundation of a building.
- **Width (mm):** This relates to the overall surface area of the model, and the value entered here determines its width.
- **Depth:** Somewhat misleading, this setting refers to the length of the model. So, increasing the value in this field will make the model longer.
- **Contrast:** After setting the dimensions of model, you'll need to select whether the darker or lighter parts of the image are higher (i.e. which parts of the image will block light).
- **Colour Model:** Some Cura users have mentioned that, in theory, the translucent version would result in better lithophanes, but both the linear and translucent models should work.
- **1 mm transmittance (%):** The percentage of light penetrating a print with a thickness of 1 mm
- **Smoothing:** Increasing the smoothing would make your image less defined.

After selecting your settings, Cura converts the image to a 3D model, and at this point, you could simply slice the file and save the G-code.



2nd option: Use the web based application Lithophane Maker

Initially when you enter the website, you must select the basic shape of your lithophane (lamp maker, heart, flat, curved, light box, etc.). So, let's assume that we select the option "Flat Lithophane Maker". The following settings appear:

### Flat Lithophane Maker

Turn your picture into a flat lithophane stl with the options below. You can place the window lithophane on the a windowsill or use [twine](#) and a [suction cup](#).

Upload your image  
 No file chosen

Frame Options

Crop?

Lithophane Resolution (mm/pixel):

Width (mm):

Height (mm):

Depth (mm):

Base Height (mm):

Overhang Angle (deg):

Maximum Thickness (mm):

Minimum Thickness (mm):

Stand Thickness (mm):

Stand Angle (degrees):

Est. Run Time (s):

Est. File Size (MB):

Your email address

Must have an [account](#) to save settings

[Read the Terms of Use](#)

### Design Schematic

Front View: Turntable for base, Width, Height

Side Cross Section View: Maximum Thickness, Depth, Base Height, Ledge Angle

### Your Design

Crop your image

**Upload Image**

X Shift (0-1):

Y Shift (0-1):

Rectangle Scale (fraction of max cropping rectangle):

If you feel these tools add value, please consider [becoming a patron](#). By becoming a patron, you will help pay for a faster server, and ensure that these tools continue to develop at a rapid pace. Patron's suggestions on how to improve the tools will also gain priority.

- **Frame Options:** lets you select the features you'd like to have on your frame. At the time of this writing, you can have 1) twine tunnels (as shown in the schematic), 2) a hook tab (tab with a hole in the middle) at the top center of the lithophane, or 3) a plain frame with no other features.
- **Lithophane resolution (mm/pixel):** is the distance between pixels in the printed lithophane, so a value of 0.3 mm/pixel means that each unique lithophane thickness is 0.3mm apart in the x and y dimensions.
- **Base Length (mm):** determines the total length of the base (including the frame) and is the main "sizing" dimension.
- **Base Width (mm):** applies to only the frame. A larger base width makes for a sturdier frame.
- **Base Height (mm):** parameter makes the frame larger in the other dimension.
- **Overhang angle:** determines what becomes your overhang angle when you print the lithophane vertically.
- **Maximum and Minimum thickness:** set the maximum and minimum thickness of the lithophane, so these can be used to control lithophane brightness and contrast.

Once you adjust all these settings, you just click on the button "Create STL", and your lithophane STL file is ready for 3D printing.

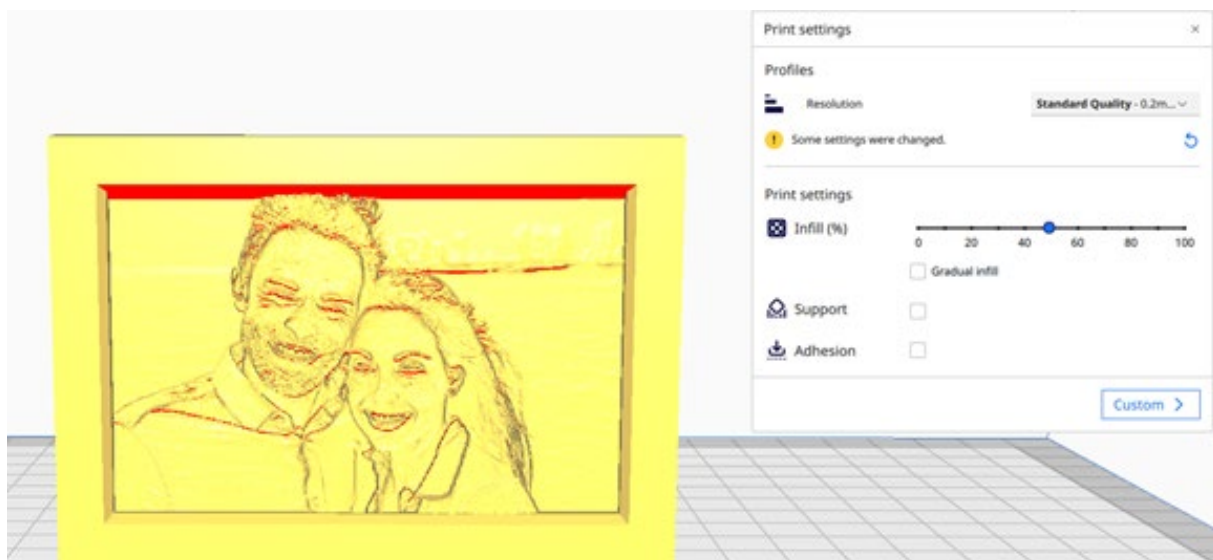
Slicing the STL file for the 3D printer.

Now all you have to do, is insert the STL file in a slicing software. Let's use the Cura slicing software that we already talked about.

Insert your STL file by clicking the open button:



As soon as you inserted your STL photo in the printing area, adjust the print settings:



We recommend choosing the Standard quality profile for resolution and adjust the infill to 20%. In addition you can enable the selection “Adhesion” for a beginner level.

Then you just click the “Slice” button at the right bottom corner of the slicing and your file is now converted into a gcode file, which is the appropriate file that your 3d printer can read and finally print.



## Video/photos with example of piece of work

Check below the following examples of lithophanes:



Source: <https://lithophanemaker.com/>



Source: [https://www.reddit.com/r/3D-printing/comments/kv88gm/lithophane\\_box\\_i\\_designed\\_and\\_printed\\_for\\_my/](https://www.reddit.com/r/3D-printing/comments/kv88gm/lithophane_box_i_designed_and_printed_for_my/)



Source: <https://www.youtube.com/watch?v=k35R3Fur6tk&t=32s>

## References

<https://all3dp.com/2/fused-deposition-modeling-fdm-3d-printing-simply-explained/>

<https://ultimaker.com/software/ultimaker-cura>

<https://en.wikipedia.org/wiki/Lithophane>

<https://all3dp.com/2/how-to-3d-print-your-own-lithophane/>

## Activity 3: Convert paintings into 3D tactile art pieces

Prepared by: e-Nable Greece

### Name of the technique

3D paintings

### Short description of the technique

This is a very interesting technique, which guide the user to convert a painting into a 3D painting. This technique is not only very impressive concerning the aesthetic result but is also extremely useful for people with visual impairment, who can identify the basic figures/elements of a painting by touching them.

Of course, you can use the Lithophane technique to convert a painting to 3D. But the result isn't understandable by the people with visual impairment because it's very confusing for them. E-Nable Greece has developed a technique, which allows for visually impaired people to "feel" the painting, while people with no disability are still able to observe the whole painting, without missing any detail/information.

The technique uses an image processing software, where we try to simplify as much as possible the painting, by keeping only the basic figures/elements. Then we convert this file into STL file and we give in the different figures/elements, different heights in Z axis. Finally, the file is ready for 3D printing.

## Equipment/ materials/tools/ software needed

First of all you need to use some software.

- Image processing software. We recommend the PIXL software, which is a free web-based application and very easy to use. Enter to the website <https://pixlr.com>
- The free web-based application <https://imagetostl.com> (without the requirement to install any software or application in your pc). Use this free online tool to convert images (png, jpg) into 3D files (stl) suitable for 3D printing.
- A Slicing software. One of the most popular slicers is Cura, by the Dutch 3D printer company Ultimaker. Cura is still a great option for beginners. You can download Cura slicer software here: <https://ultimaker.com/software/ultimaker-cura>

Secondly you need a **3D printer**. 3D printers — which act somewhat similarly to traditional 2D inkjet printers — use a layering method to create the desired object. They work from the ground up and pile on layer after layer until the object looks exactly like it was envisioned. You need a simple FDM printer. Fused deposition modeling, or FDM for short, is a material extrusion method of additive manufacturing where materials are extruded through a nozzle and joined together to create 3D objects.

A typical FDM 3D printer, therefore, takes a polymer-based filament and forces it through a heated nozzle, which melts the material and deposits it in 2D layers on the build platform. While still warm, these layers fuse with each other to eventually create a three-dimensional part.

Generally accepted as the simplest way to 3D print stuff, FDM is accessible, reasonably efficient, and widely popular. FDM printers dominate the 3D printing market, and you can find a simple, cheap 3d printer from 200 euros.

## Useful tips/suggestion how to work with this technique

Go to the website <https://pixlr.com> and follow these steps:

1. Select "Open Image" and select from your computer the image you want to edit. The program offers you the image and the central theme free from the background information. If for some reason an error occurs try again and almost certainly the second attempt will be successful.



2. Go to the menu "Adjustment" and select "Desaturate". You turn the picture in black and white.



3. For the elements of the picture we want to give them a z height (during 3D printing), should be black and the areas with no z height should be white. Use the "Fill" tool to change the color of different areas according the z height you want. Also use this tool to erase elements that you decide not to give them a z height. For example keep only the dock, the boat, the horizon and the cloud. Adjust the "Tolerance" value to achieve the best result.



4. Use the free web-based application <https://imagetostl.com/> (without the requirement to install any software or application in your pc). This tool is really easy and it is suggested for basic users concerning IT skills. Moreover, it is suitable for users that don't want to 3D print the final object by themselves, but they will send the file to a 3D printing expert. Use this free online tool in order to convert images (png, jpg) into 3D files (stl) suitable for 3D printing.

 A screenshot of the 'imagetostl.com' web application interface. On the left, there is a small preview window showing a black silhouette of a mountain with a cloud above it. The main area contains various settings:
 

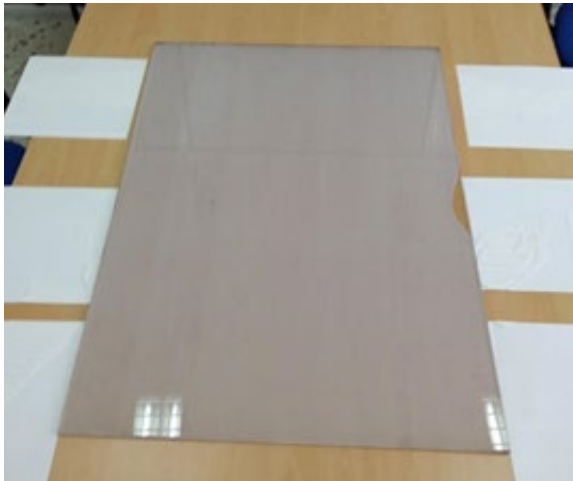
- Tool:** Standard (dropdown menu)
- Color Conversion:** Grayscale (dropdown menu)
- Width (mm):** 200 (input field)
- Height (mm):** 112.5 (input field)
- Depth (mm):** 3 (input field)
- Add Base (mm):** 0.4 (input field)
- Lock aspect ratio:**
- Invert Output:**
- Enable Smoothing:**
- Z-Axis Mirror:**
- Generate Preview:**

 A promotional message on the right says: "Please consider [subscribing for \\$13.99](#) for more options, faster processing and no Ads." At the bottom center, there is a large green button labeled "Convert to .STL!".

- i. Press “Upload a File” and select your picture
  - ii. In the settings we select “Depth” for the height of the figures, “Add Base” for the height of the base (add base - recommended 0.4-0.8 mm) and Width & Depth dimensions. If we have selected the “Lock Aspect Ratio” option, then any dimension change in one direction changes the other dimension (width or depth) accordingly.
  - iii. If we do not have the “Invert Output” option selected, then when building the 3D model, the inverter will apply the height we set in “Depth” (eg. 3 mm) to the geometry where it finds a white pixel and 0 mm to any black pixels. All intermediate shades will be represented proportionally in the final 3D model. Conversely if the “Invert Output” option is selected, then the black pixels will have a height of 3mm, the white pixels 0 mm and all intermediate shades will have a height of 0 to 3 mm, depending on their brightness.
  - iv. The “Enable Smoothing” option smoothes the edges. Recommended to use.
  - v. The “Z axis Mirror” option reproduces the object on both sides of the base
  - vi. The produced STL file is ready to 3D print.
5. After that glue the printed image into a transparent polycarbonic sheet. Behind the sheet stick a transparent colour poster of the original painting and add backlight. The result you will have is that actually the backlight will project the whole topic (as you had the original painting) but you will also have the ability to touch and feel the 3d printed paintings, which specific elements (the dock, the boat, the horizon and the cloud) have 3d dimension. This result is impressive for the mainstream audience, while making the art pieces accessible for people with visual impairment.

## Video/photos with example of piece of work

Below you can see the result of the methodology explained at the previous section:



## References

<https://www.facebook.com/GreeceEnable/posts/pfbid02Z6Z4jbe1HbJBY1tLGL-f7uT8rztF5redFgaNXnqLitFUJDjUxBunW4Qf3XopBKqmol>

## Activity 4: Augmented reality and art

Prepared by: Association Social Hub

### Name of the technique

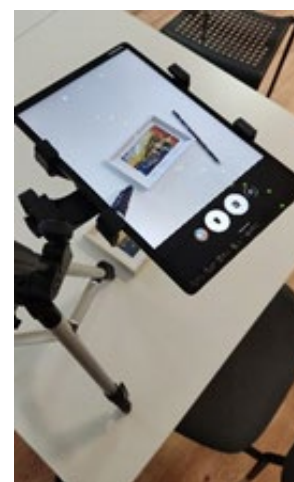
Augmented reality and art

### Short description of the technique

Augmented reality (AR) is the integration of digital information with the user's environment in real time. In comparison to virtual reality (VR), which creates a totally unreal environment, augmented reality users experience a real-world environment with some additional perceptual information overlaid on it.

Augmented reality is used to change perception of natural environments or to enrich it with additional information. Augmented reality delivers visual elements, sound, and other sensory input to the user through digital devices (smartphone, tablet, etc.). The information can be added to an environment or mask part of the natural environment.

This technique provides an artist with interactive tools to enrich his/her exhibitions in a more interactive and more inclusive way. Artivive© tool (or any other AR tool) can be used when while creating the art you want to show your visitor how the masterpiece was created or to provide more content (including some background information, main idea, tools or materials you have been using, etc.).



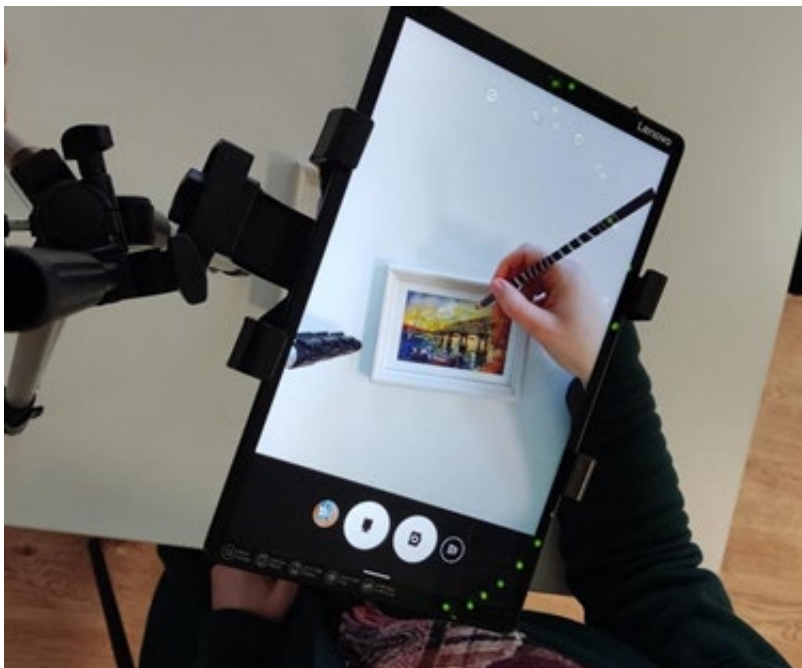


Artivive uses two types of media – image as a “trigger” to be recognized and video as the result shown in the smart device app. Be aware that in the free version of Artivive the video must be up to 100 mb, so sometimes it needs to be compressed.

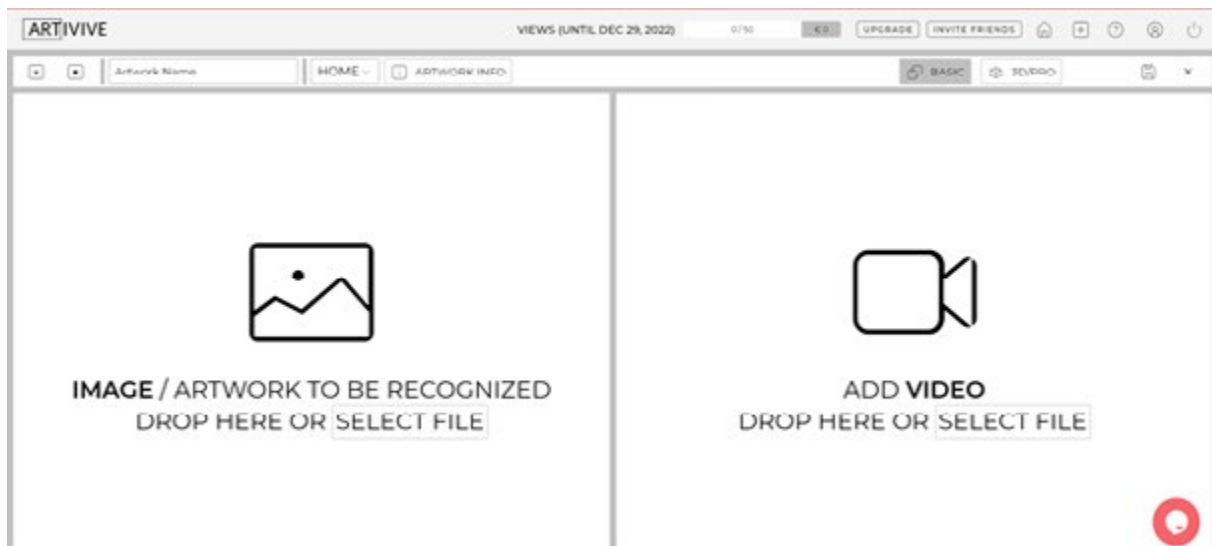
Augmented reality provides the visitors of exhibitions with a more interactive, and more hands-on way of “consuming” art as well as opens new opportunities to full-fill visual art with more dimensions.

Steps of the activity:

- 1) Mount your smart device on a table to film the artworks You are creating. Start recording, then start drawing (or create something else). Now take a picture of your artwork when it is finished. Upload this picture and a video to Your computer. Compress it if it exceeds 100 Mb.



2) After the artwork is finished, open the webpage <https://bridge.artivive.com/>. If it is your first time – You need to sign up or log in via Your google account. On the right corner, You will find a button called “Add new artwork/folder”. Then upload the picture of your artwork as an image and the process of creating it as a video.



When the process is finished, by using your smart device with installed Artivive app, You can watch how the artwork was created – and anyone who sees your artwork can.

### **Equipment/ materials/tools/ software needed**

Any other visual artistic technique (painting, sculpture, modelling, etc.) materials, smartphone or tablet, smartphone, or tablet table mount (to keep Your smart device above or in front of your art), computer or laptop, Artivive Bridge webpage and Artivive app.

## Useful tips/suggestion how to work with this technique

- You can use it to provide some additional information to the visual artwork for it to become more friendly for people with visual impairment (to add some sound, voice )
- OR imagine it all opposite - only some symbol, miniature or only a few first stripes can be provided as a trigger and then via app You can see the full picture or the final artwork.

## Activity 5: 3D printer and famous monuments

Prepared by: Associazione Ergon a favore dei sordi

### Name of the technique

3D Printing

### Short description of the technique

3D printing, also known as additive manufacturing, is a method of creating a three dimensional object layer-by-layer using a computer created design. 3D printing is an additive process whereby layers of material are built up to create a 3D part.

This technique is most useful when working with people with visual impairments, as it gives the visually impaired person the opportunity to understand the shape of the monument and the various details by touching the printed object

### Equipment/ materials/tools/ software needed

The equipment needed falls into two categories:

- one related to the creation of 3D models, for which there are some tools: for example, "Tinkercad", which is a free, easy-to-use tool that can be used to create the digital file with renderings of the buildings you are interested in; you can also use "Thingiverse", which is a website that offers many print-ready files for free, and you just have to type in the name of the monument you want to print and look at the various photos to find the one you like best.

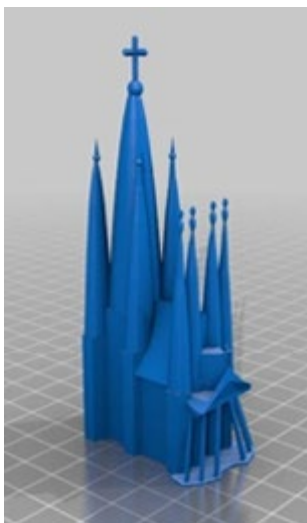
- The second is about the 3D printer, which is about creating 3D objects that are printed layer by layer, and if you have the 3D printer, you also have to have the thermoplastic material to heat and use to print the monument.

It is not necessary to have a 3D printer to do this activity, as 3D monuments can also be printed at specialty stores.

Useful tips/suggestion how to work with this technique

If you do not have time or are not skilled at designing a monument, it is best to look for the ready-to-print file on Internet sites such as “Thingiverse”.

### Video/photos with example of piece of work



### References

3D Printed Statues: The Best Sites for STL Files in 2022 by Jackson O’Connell

<https://all3dp.com/2/3d-printed-statues-best-sites/>

How to 3D print? The beginner’s Guide to 3D Printing

<https://www.bcn3d.com/the-beginners-guide-to-3d-printing-6-steps/>

## Activity 6: How to create a mood board for your art

Prepared by: MYARTIST

### Name of the technique:

How to create a mood board for your art

### Short description of the technique

A mood board, sometimes called an inspiration board, is a tool to help you hone your visual ideas at the start of a creative project. It is a collage of images, material samples, color palettes and sometimes descriptive words and typography that will guide you in your work.



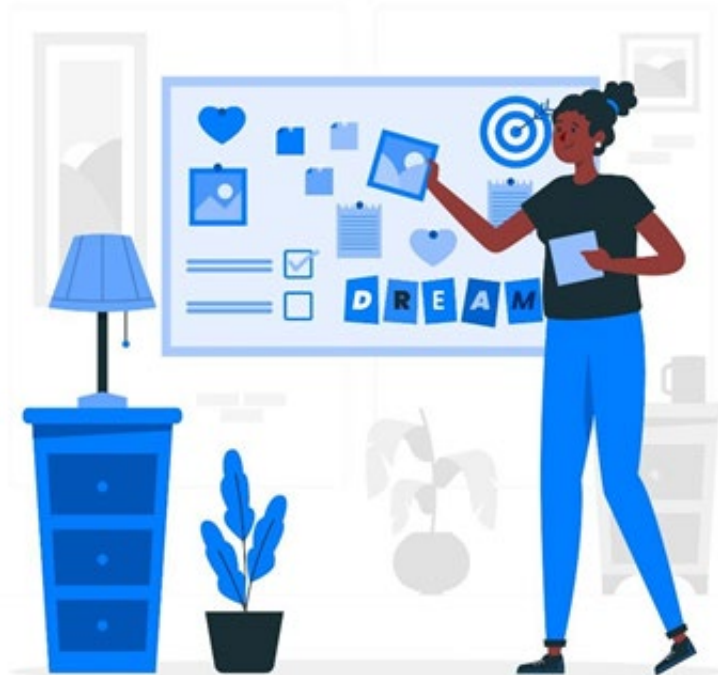
Mood boards are used by a variety of creative professionals, including graphic designers, interior decorators, set designers, fashion designers, photographers, and event planners. Basically, anyone who is developing an object or environment that needs to have a particular “look” often starts with a mood board to spec out design elements and colour schemes.

There are a lot of benefits of having a mood board.

- Record and organize ideas
- Flexibility of format (printed or digital)

### **Equipment/ materials/tools/ software needed**

You can use practically anything that can help you to visualize the idea for your art. That could be a photograph, a piece of cloth, text, a newspaper clip, magazines, textures like napkins, broidery and so on. All tangible things and objects can be used for a mood board. You can also use digital elements like video, animations, sounds, music. Everything can participate to make your idea of an art project into a mood board.



For a digital mood board you can use various online platforms or software to assemble your elements.

Every day a new app or software is presented that we can use to create a collage of ideas and our mood board. You can use [Adobe Express](#), a free tool from Adobe. Another great online platform for creating mood boards and more is [Canva](#). Another free tool/webpage is Pinterest which actually is a mood board by itself.

### **Useful tips/suggestions how to work with this technique**

You can make the process of creating a mood board easier if you make some steps, just to organize your workflow better. At first you can brainstorm your theme. You probably have some ideas in mind already. Now brainstorm some keywords associated with these ideas — for a painting, you might zero in on the style (impressionism, cubism, expressionism, pop art), materials (watercolours, oil) or colour (mustard yellow, blush pink, forest green). This will help you with online image searches — try Google but also Getty, Unsplash, Pinterest and Instagram. If you're not drawn to a particular idea yet, just sit down with an art book, let your eyes roam and take note of what resonates. You'll soon find inspiration.

Take your early sources of inspiration, then challenge yourself to think outside of the box to find more. Movie scenes, fashion editorial shoots, vintage illustrations, art works, fabric and colour swatches, architecture, objects and clothing can all be good mood board material. Don't disregard typography either — an old-style serif font will have a very different impact to a clean and contemporary sans-serif style, and this makes it a great tool for you to showcase some keywords or relevant quotes.

Now you have more material than actually is useful. Curate by choosing images and samples that come together harmoniously, building in some breadth to reflect your originality. A cohesive colour palette is important, so discard anything that clashes. For a digital board, consider eye-dropping five key colours from the images into swatches. Curate your mood board so that the different elements on it can relate logically and organically to each other. Your board shouldn't seem like an unconnected sequence of isolated words and images.



Focus on your key image. A good rule of thumb while creating a mood board is to focus on one key image and structure all other elements around it. The key image should be bigger than the other elements so it can draw audience attention immediately.

Stock photos are wonderful, but real-life photos provide a more authentic feel to your mood board. You don't need fancy equipment to take these photos. Your phone camera can take perfectly good shots. From interesting street-side graffiti to the flowers in your garden – everything can provide inspiration for an idea.



On your laptop or desktop, you can also create a photo collage simply using your word processing document software. Insert and arrange the images as you like and voila! Easy collage without having to learn a whole new software program.

# Activity 7: How to create your digital portfolio

Prepared by: MYARTIST

## Name of the technique:

How to create your digital portfolio?

## Short description of the technique

A Digital Portfolio, also known as Electronic Portfolio or e-Portfolio, is a tool that collects the set of content, documents, works, presentations and others with the aim of presenting the best work of an individual or organization, presented in digital format. In this way, it is presented as a grouping of digital content that works as a presentation. It is an element that is becoming enormously popular in the digital world due to its ease of being shared on the internet, both by social networks, web pages and email.

There are three main types of e-portfolios, although they may be referred to using different terms:

- developmental (e.g., working)
- assessment
- showcase

A developmental e-portfolio can show the advancement of skill over a period of time rubrics. The main purpose is to provide an avenue for communication between student and instructor. An assessment portfolio will demonstrate skill and

competence in a particular domain or area. A showcase portfolio highlights stellar work in a specific area, it is typically shown to potential employers to gain employment. When it is used for a job application it is sometimes called a career portfolio. Most e-portfolios are a mix of the three main types to create a hybrid portfolio.

Regardless of the medium(s) you work with, a portfolio will give more people access to your work and a better idea of your abilities. They display skills and projects in a robust and visual way that complements the information in your resume and cover letter.

### **Equipment/ materials/tools/ software needed**

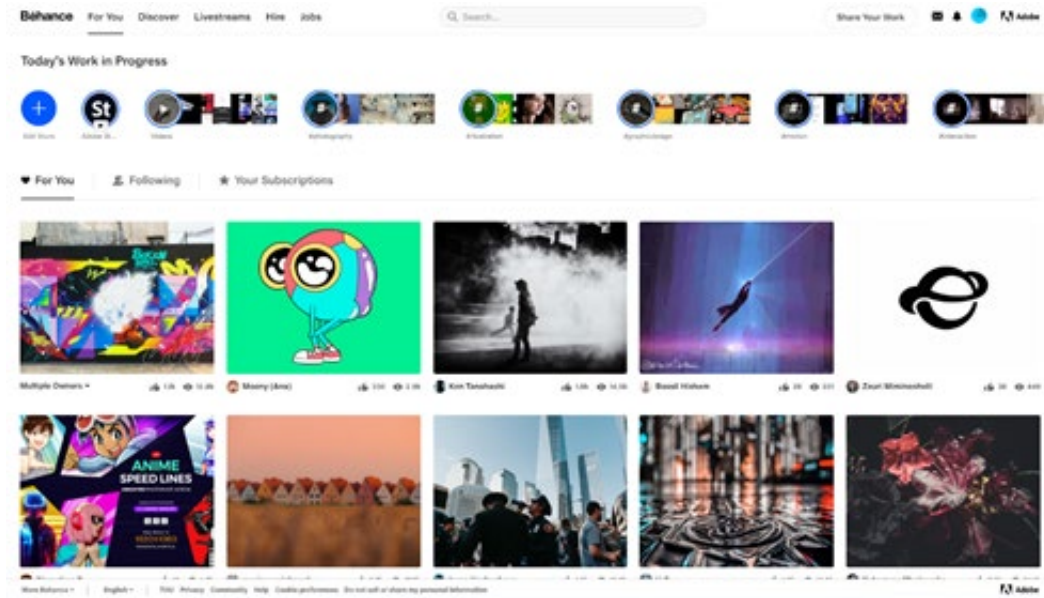
In the digital realm there are a lot of online tools to use to create your portfolio. Each one has its pros and cons. While most of them are free to use and create your designs to showcase them, they all have a paid plan in order to use more features.

One of the most straightforward free portfolio websites, Crevado lets you use a simple drag-and-drop tool to upload your projects and rearrange them on the screen for true ease of use. The site is also automatically optimized for any device, so your portfolio can be viewed on a smartphone, tablet, or desktop.

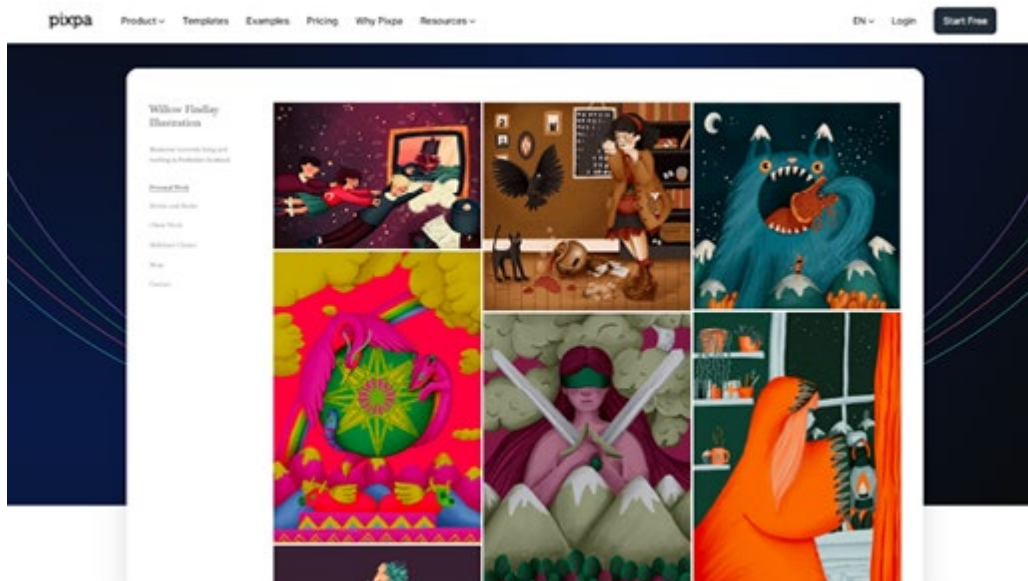
You can customize your design to suit your preferences without writing any code.



Behance is one of the most widely-used online portfolio websites. It's also straightforward to use — you can organize your work based on the project, list projects under construction, and ask followers for feedback. Additionally, the site allows you to link your portfolio to your social media accounts.

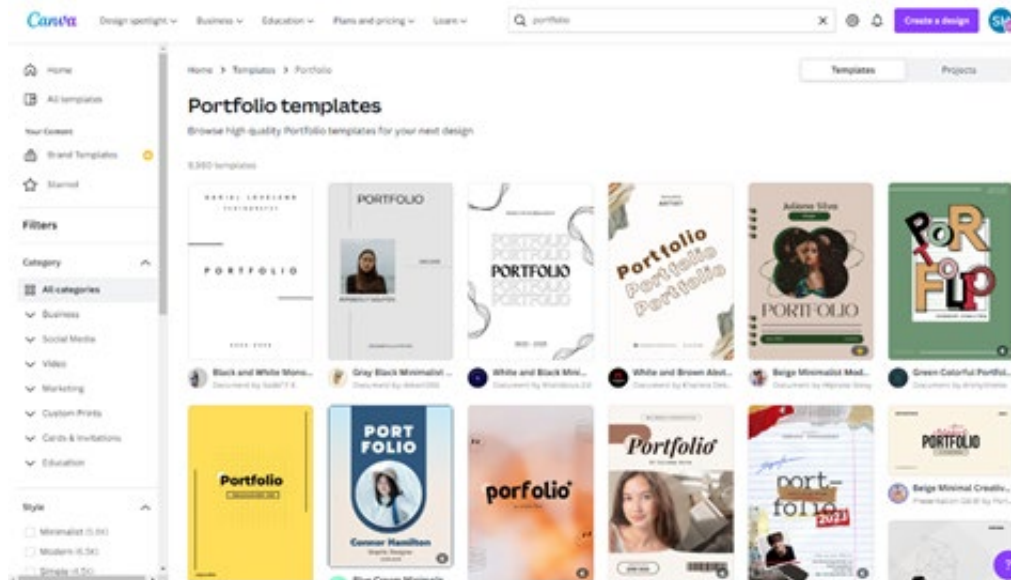


Pixpa is an all-in-one, DIY website building platform designed to empower creative professionals by helping them build feature-rich, professional websites without the need of knowing how to write HTML code to create a website.



Pixpa offers a range of modern, mobile-friendly, and responsive templates which can be fully customized using the easy-to-use visual editor and drag-and-drop page builder. Rich features, including blogging tools, built-in SEO and marketing tools, social media integrations, multiple gallery options, ecommerce functionality, make Pixpa a portfolio-building platform for creative professionals.

Canva is an online tool to create content for your portfolio but also you can create the portfolio itself. With lots of tools you can design and implement your designs and ideas with great ease. At the end you can use a button to create even a web-site out of our portfolio design.



## Useful tips/suggestions how to work with this technique

Building a digital portfolio takes time and effort. To build one, you need to:

- Identify your knowledge, skills, and abilities (what do you know? What can you do?)
- Gather evidence (how can you demonstrate your knowledge, skills, and abilities?)
- Organize and assemble your portfolio (how can you categorize the evidence you have gathered?)

While it can be tempting to add all of your work into a portfolio, it's important to remember its intent: To show how talented you are as quickly as possible. Start designing your portfolio by looking at all the work you've done, then choose your favourite pieces and the work you've gotten the most positive feedback for.

Showcasing a limited number of projects allows you to present each one thoroughly, including all the relevant details and clearly explaining their backstory. Go beyond finished pieces alone by creating case studies, walking viewers through your design process - from the initial objective to the final results. You can include work-in-progress pics, preliminary drafts or anything else that can contextualize the work and add to your visitors' understanding of the project.

Showing too many projects can make your portfolio inconsistent in its level of work. Tailor your portfolio to the job you want, keeping in mind that the work you show is most likely the kind of work that you'll be hired to do more of in the future.

Next, diversify your options and choose examples that show a full range of your abilities. This way, the reader is able to see your adaptability and creativity.

Whether you have a logo, or just go by your personal name, creating a template that you can use throughout your portfolio provides a visual cue for the reader and reminds them whose work they are looking at.

Don't think of your portfolio as simply a collection of your past work. Instead, take it as an opportunity to tell a narrative of your ability to think outside the box. A great way to do this is to write up a short case study alongside a successful project you've worked on. Often, case studies outline the obstacles before the project, the solution to the obstacle and how you were able to overcome that obstacle through your expertise.



**Co-funded by  
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# Move & Act



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