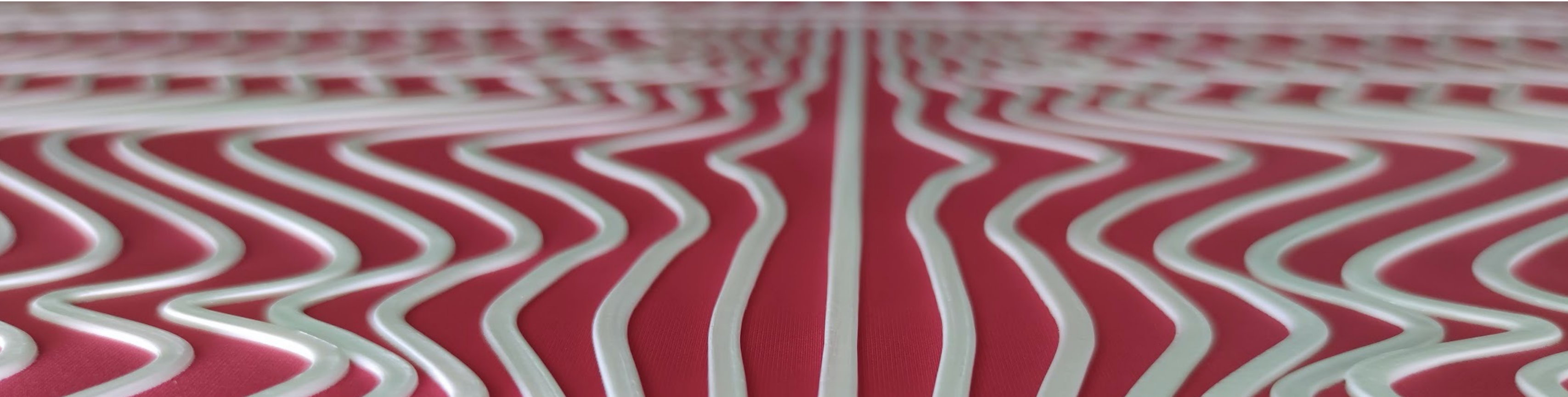


SUMMARY

**New frontier for Textile.
Exploring Digital Fabrication Technologies.**

Developed by:



Background

New creative processes for
new small-scale production models.

Democratization of Technology

Now you reach technologies that were
previously rare and expensive

Customization of Production

Thanks to the digitalization and sharing of
files

Independence of Distribution

New business models and openness

Fab Lab (Fabrication Laboratory)

A small-scale workshop offering (personal)
digital fabrication

Digital fabrication technologies

Subtractive Technologies

- Laser cutting
- CNC milling machine
- Vinyl cutter
- ...

Additive Technologies: 3D printing

- **Deposition Processes:**
 - FDM
 - FFF
 - Paste Ext
 - Poly/Multi Jet
- **Binding Processes:**
 - SLA
 - SLS
 - LOM
 - 3DP

Laser cutting

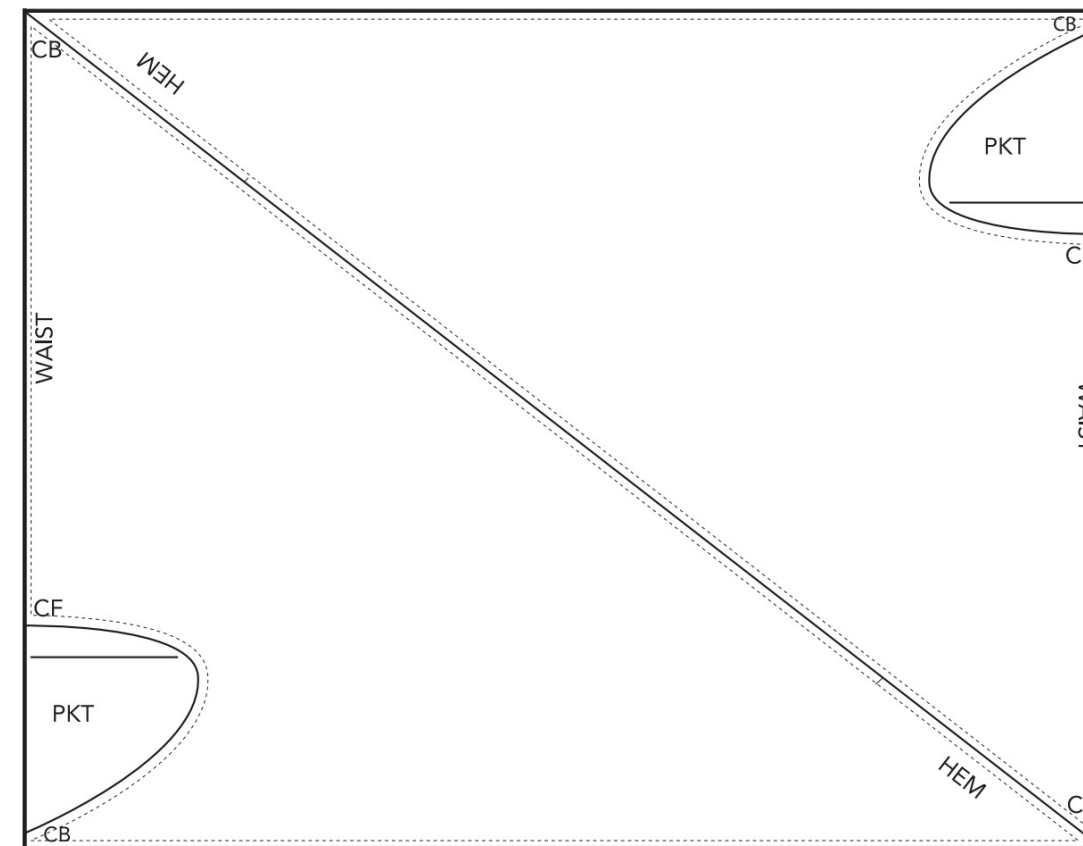
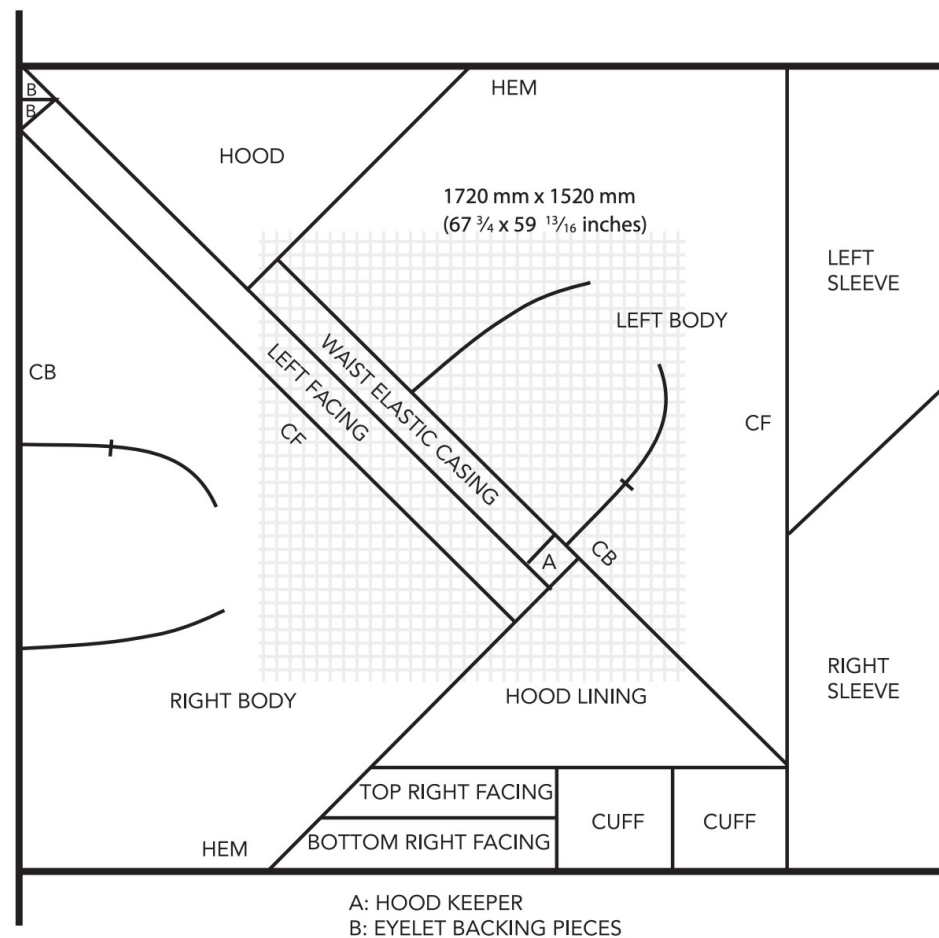
A non-contact process which utilizes a laser beam through a nozzle to cut materials, resulting in high quality, dimensionally accurate cuts. A combination of heat and pressure creates the cutting action.



Source:
instructable.com

Zero Waste design approach

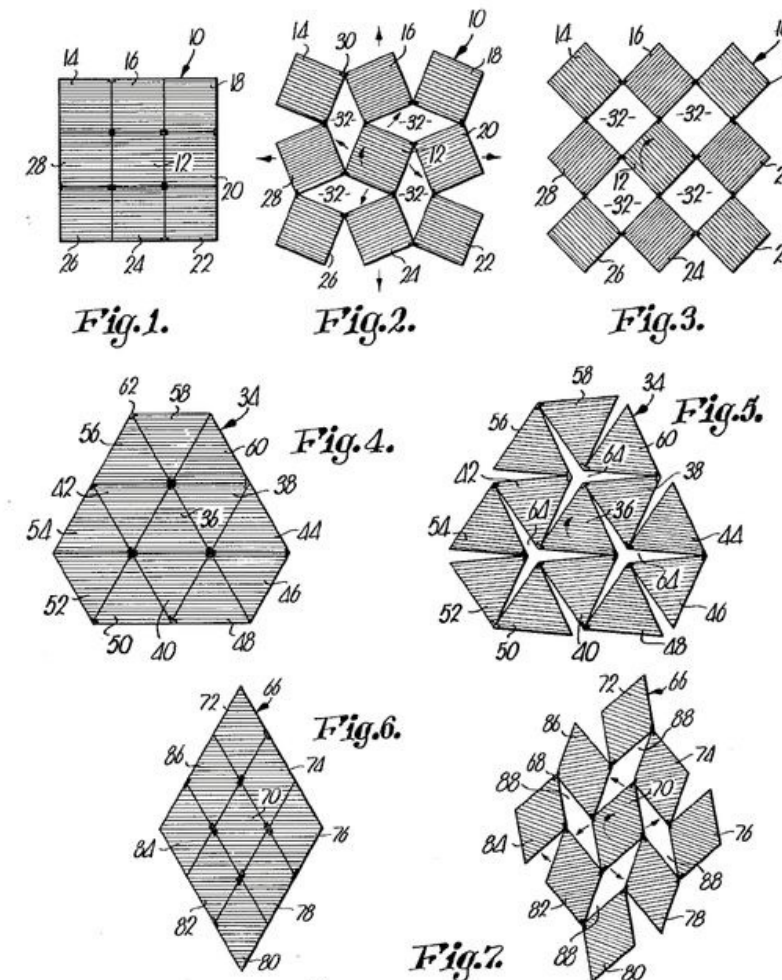
Laser cutting can be used to cut the paper pattern directly onto fabric. With the heat of the laser the edges of fabrics based on synthetic fibers will be welded, and the pieces will be usable without creating hems.



Source:
<https://opus.lib.uts.edu.au/bitstream/10453/23384/6/02whole.pdf>

Auxetic structure

This technology is also particularly suitable for reproducing auxetic structures, which can act not only as patterns, but also to break down the two-dimensionality.



Modular fashion

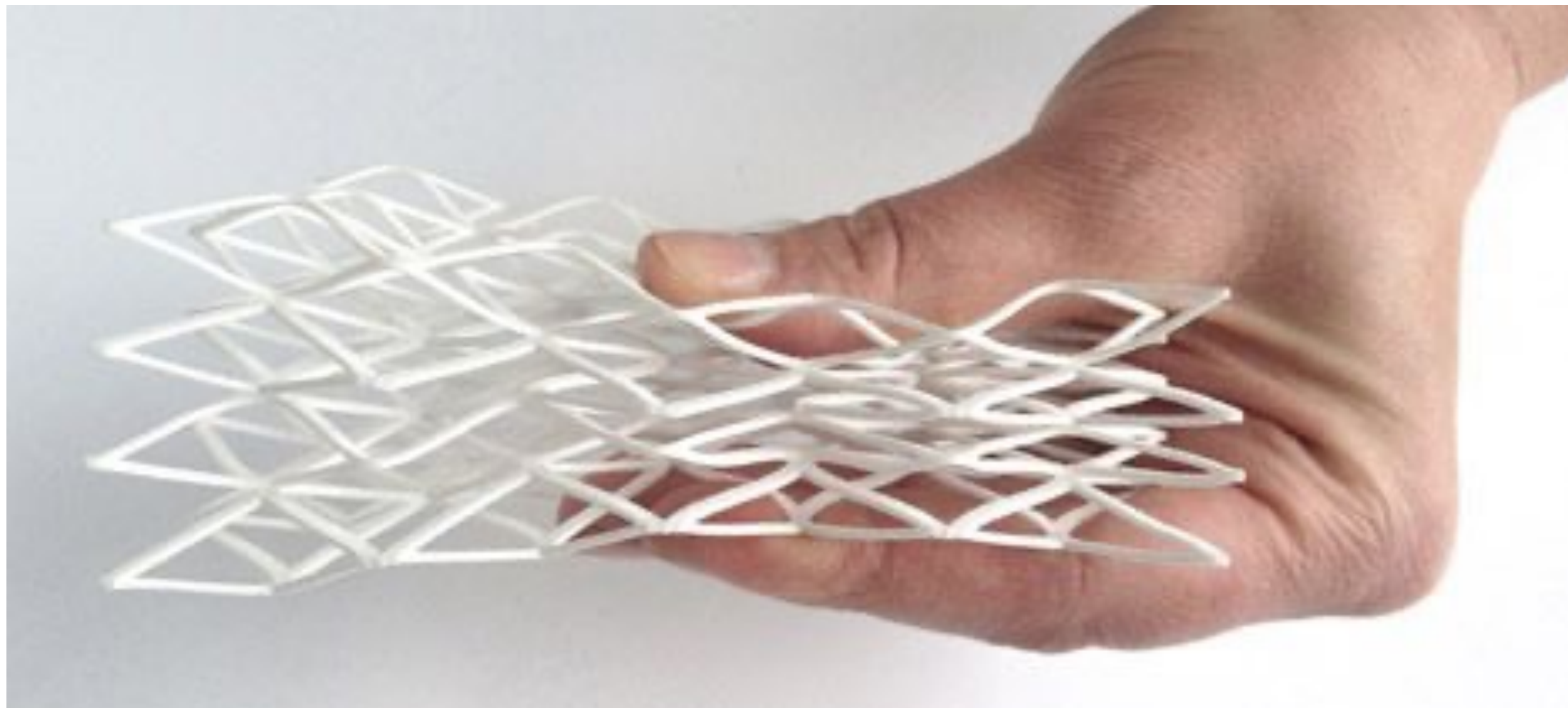
Modular fashion is an approach to the production of accessories and garments using vector graphic design of bidimensional lasercut modules.



Source:
<https://www.notjustalabel.com/matija-cop>

3D printing

Additive Manufacturing technologies are more commonly known as 3D printing. As designers it is very important to know the potential and limits of the available technologies.

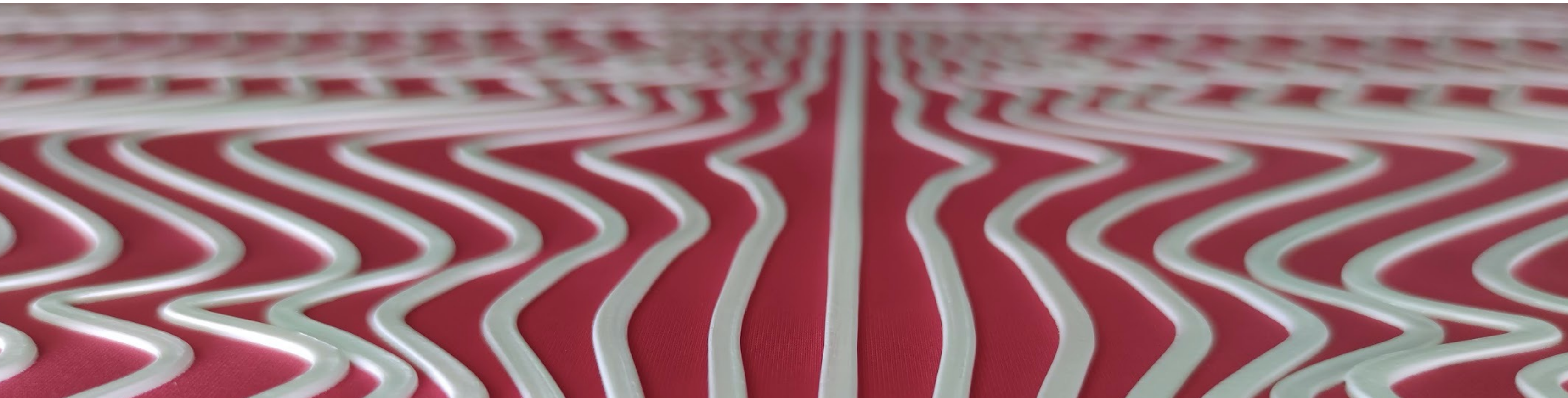


Direct 3D printing on textile



Courtesy | on the left: Travis Fitch; on the right: Andres Caceres, Enzo Camilla, Daniele Carlini, Sofia Duarte P., Lisa Iannello, Victoria Rodriguez S.

This was a summary of an open educational resource. Please visit <http://destexproject.eu/> to see the full amount of intellectual outputs of the project.



Disclaimer:

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