Palpatine

INSTRUCTIONS FOR FABRICATION

AUTHORS:

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CREDITS:

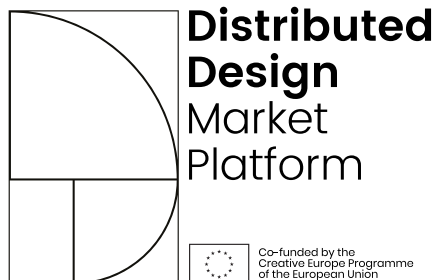**Dr. Fabrizio Della Torre** (Centro Medico Santagostino)

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1. Basic info

PALPATINE An analogue wearable educational device to learn the correct breast palpation techniques.

Fig. 1. PALPATINE: the final object (photo credits: Gabriele Renna)

Palpatine is a bra made by laser cutting technique that uses an auxetic structure, allowing it to fit into different sizes and cups. This structure suggests to the users the correct movements for breast self-examination.
For us aesthetics is a key point since it should be a desirable product that aims to set its own trades. This project looks forward to create new habits and awareness in young women about this important practice and change the stressful perception that it has. Your boobs change every month, touch them!

BILL OF MATERIALS

The table below contains all the materials necessary for the reproduction of the product (consumables, electronics, components).

Name and tipology	Link	Quantity	Price
Cotton neoprene	n.a.	45x70 cm	n.a.
Velcro	n.a.	5 cm	n.a.
Straps	n.a.	2	n.a
Strap sliders	n.a	2	n.a

The estimated cost to materialize Palpatine is 7 euro, of which 5 euro for laser cutting and 2 euro to purchase the material

TECHNOLOGY AND TOOLS USED

- Laser Cut machine to cut the wearable
- Sewing machine to sew the Velcro strip and the straps

2. Step-by-step materialization

Step 01. Select and extract Palpatine.svg file related to your brest size (sizes m-l and s-m) from Palpatine_digitalfiles.zip

Step 02. If you want to modify* open the file in Illustrator, Autocad or Rhino and, after, export it as a vector file.
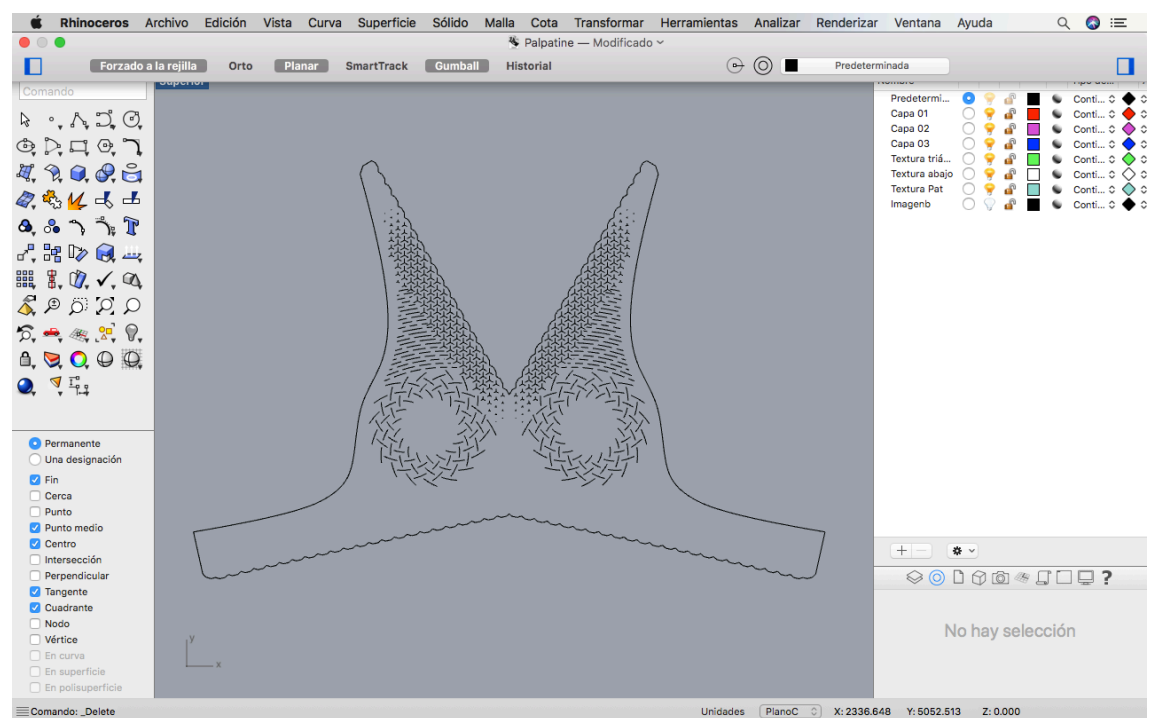

Fig. 2. Opening the Palpatine file with Rhino.

Step 03. Stretch well the fabric on the plane of the laser cut.

Step 04. Laser cut the bra. If you use a Trotec machine, you can use these settings**: (Cutting level: power 40, speed 2.5, 2000 Hz, 1 passage, air assist OFF; Engraving level: power 17, speed 14, 1000 PPI, 1 passage, air assist OFF).
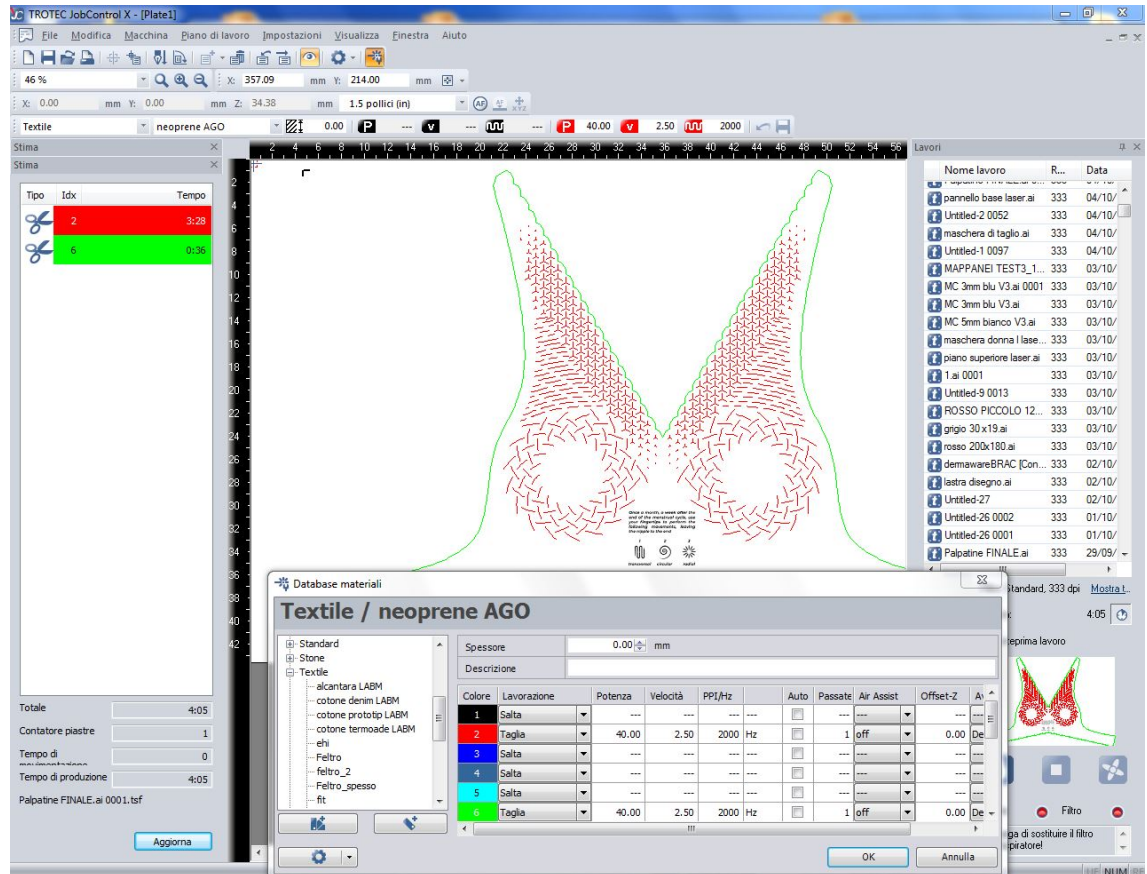

Fig. 3. Setting Laser Cut (Trotec Speedy 300) to cut Palpatine.

Step 05. Sew the velcro into the back of the bra.

Step 06. Sew two buttonholesons on the back of the bra to attach the straps.

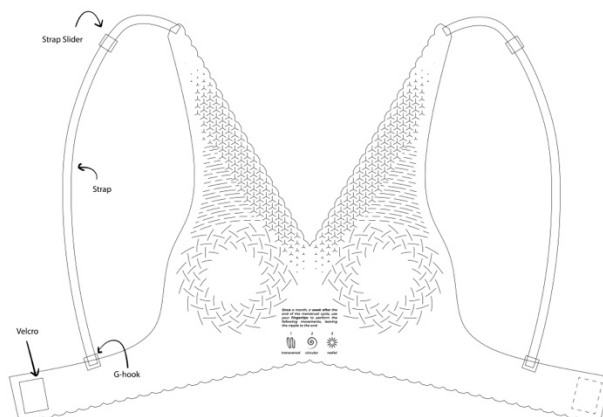**Step 06.** Cut a 32cm strap of your choice, sew it to the slide wing and adjust it using the strap slider.

Fig. 4. Final assembly of Palpatine

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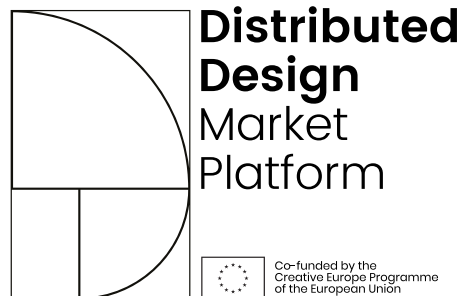**Step 08.** Wear your bra and be awesome.

*available sizes: s/m – m/l

**ask to a person who used the machine or the Fab Manager for settings parameters

3. Credits

PALPATINE is a project publicly released and made available in open source mode according to the **Creative Common License (CC-BY)** and promoted by Distributed Design Market Platform with the related documentation.

The authors of PALPATINE are **Francesca Poli, Daniel Sanchez, Benedetta Beltrami, Luca Sommariva** and **Chiara Parise**.
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* POLIFACTORY and DDMP logos have to be inserted (a .svg file with the two logos is included in the .zip folder named Dermap_digitalfiles.zip)

4. Downloadable files

PALPATINE files can be download at:

www.polifactory.polimi.it/polifactory_progetti/ddmp-fabcare?lang=en

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