Mole Mapper

INSTRUCTIONS FOR FABRICATION

AUTHORS:

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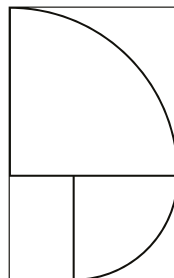
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Distributed Design Market Platform

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1. Basic info

Mole Mapper is a small tool for skin cancer prevention. It can be used to self-check all skin moles, looking for warning signs.

Figg. 1 and 2. The MOLE MAPPER: the object can be divided in two parts to be used.

Throughout the years, is important to examine your own skin, in particular if you have many skin moles and fair skin. Self-exams can help you identify potential skin cancers early, when they can almost always be completely cured. For a successful self-exam you obviously need to know what you are looking for: that is the aim of Mole Mapper. It is a small tool, made with lasercut PMMA scraps, that summarizes what physicians call "the ABCDE of melanoma", the warning signs to recognize changes in the moles on your body. With Mole Mapper you can:

- Check if your moles are bigger than 6mm
- Check if your moles are asymmetical
- Be reminded to control moles' borders, color, and evolution in time
- Easily snap a picture of your mole, to control it is evolution and dimensions

MoleMapper comes with a postcards with all instructions. The postcard doubles as packaging for the little object. It is innovative because it offers an

inexpensive tangible way to promote awareness about melanoma prevention. It is important to identify moles that look or feel different than the others on your body, and to routinely visit a dermatologist.
Go in a Fab Lab and make one for yourself, or to give as gift!

BILL OF MATERIALS

To create a Mole Mapper can be used any scrap of transparent PMMA 55x200 mm, possibly with 2mm thickness. In this area you can laser-cut 2 copies of Mole Mapper at the same time, thanks to its compact nesting.

One A4 paper sheet to print two A5 postcards. It is suggested to use 200gr, or thicker paper.

The cost to materialize a Mole Mapper is estimated in 3 euro.

TECHNOLOGY AND TOOLS USED

- Laser Cutter for cutting and engraving the Mole Mapper
- A common cutter, to manually cut holes in the paper postcard

2. Step-by-step materialization

Step 01. Open Mole Mapper's vector file. You will see that the nesting will let you cut two copies of the object. The green lines represents laser-cuts, while the black represent incisions.

Step 02. Control if the line thickness is correct for your lase-cutter program.
Step 03. Cutting instructions: the little 6mm circle inside Mole Mapper has to be cut before cutting the edges of the shape, so you have to specify it to the machine.
Step 04. Laser-cut settings. Every kind of machine needs different set-up. We suggest to follow this order: firstly, you have to engrave the Mole Mapper; secondly, you have to cut the internal hole; finally, you cut the whole perimeter. Our prototype uses a 2mm PMMA transparent piece.

Step 05. Let's cut! Approximate working time 3 minutes (2 for engraving and less than 1 for cutting) and you will make a couple of Mole Mappers (suggested nesting).

Fig. 3. Laser cut in action to cut and engrave a Mole Mapper.

Step 06. Print the A4 with the postcard template. The file is already an A4, no action needed. When you print it is important "NOT TO ADAPT TO PAGE" otherwise, the dimensions won't fit with Mole Mapper.

You can choose between two postcard options:
a) With a black background: when Mole Mapper is placed on the black zone, all information will appear visible,
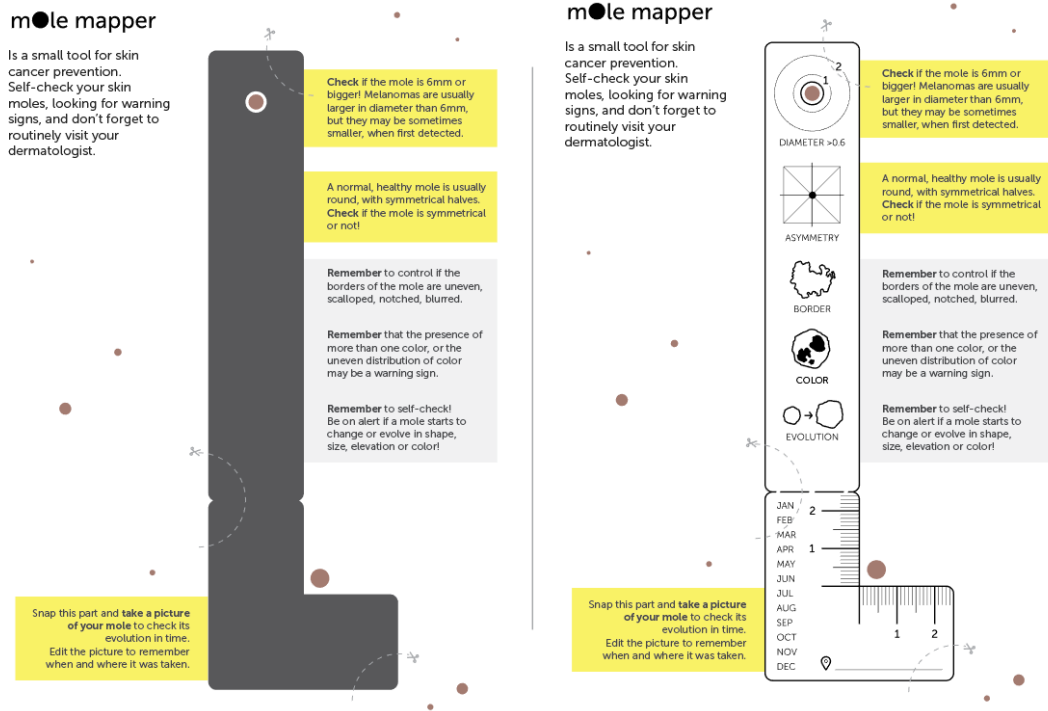b) With white background: the postcard remains more informative.

Fig. 4. Postcard Options

Step 07. Cut along the dotted lines on the postcard with a simple cutter. Insert Mole Mapper in its postcard packaging.
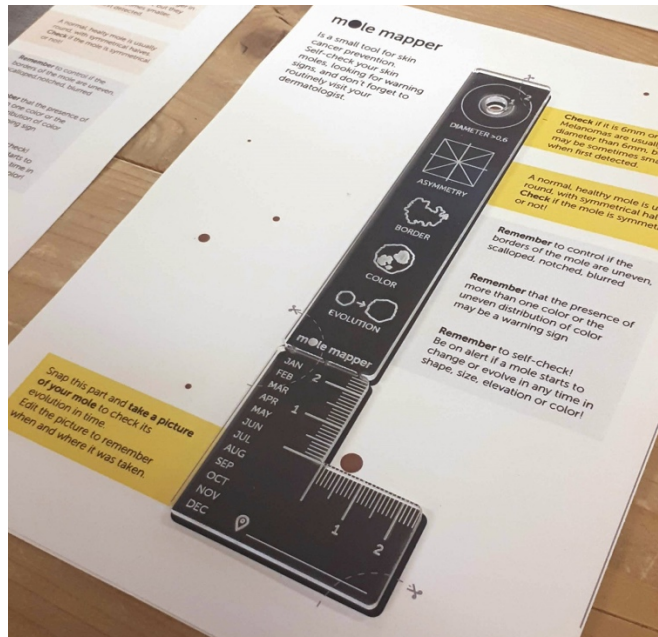
Fig. 5. Mole Mapper with instructions

3. Credits

MOLE MAPPER 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 MOLE MAPPER are **Ilaria Vitali, Patrizia Bolzan**, and **Mila Stepanovic.**

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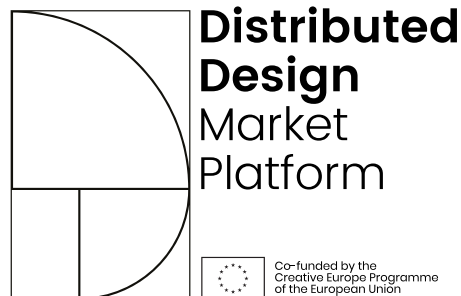
* POLIFACTORY and DDMP logos have to be inserted (a .svg file with the two logos is included in the .zip folder named Dermap_digitalfiles.zip)

4. Downloadable files

MOLE MAPPER files can be download at:

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

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