

Textiles
under
pressure

Fabricademy 2026
Alberto Blanco

TEXTILES UNDER PRESSURE

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FABRICADEMY
textile and technology academy

ABOUT

01

What is an inflatable textile?

02

How can one manufacture inflatable garments?

INTRODUCTION

PART 1: INFORMATION

03

Techniques on inflatable textiles.

04

proof of concepts for inflatable textiles

PART 2: THE TESTS

PART 3: THE BOOK

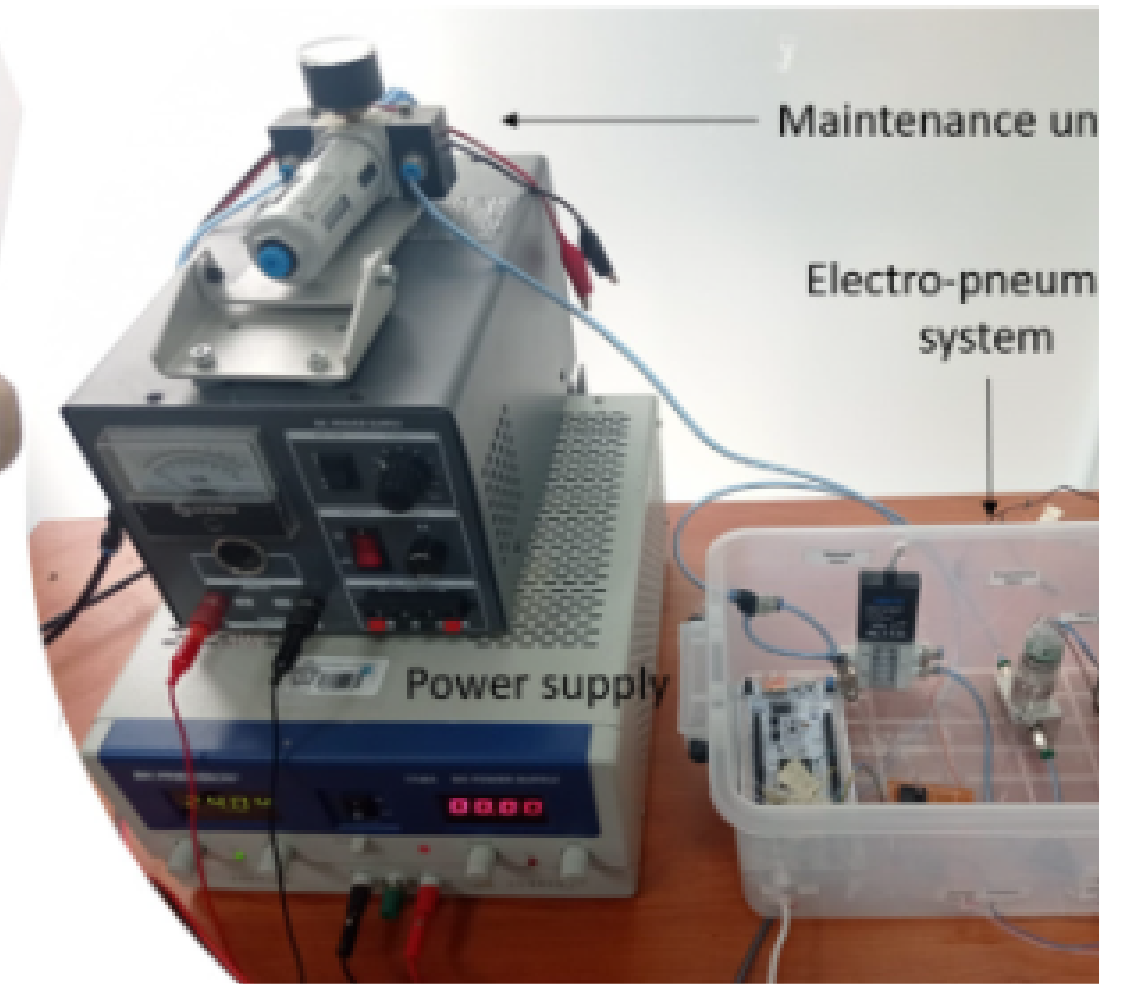
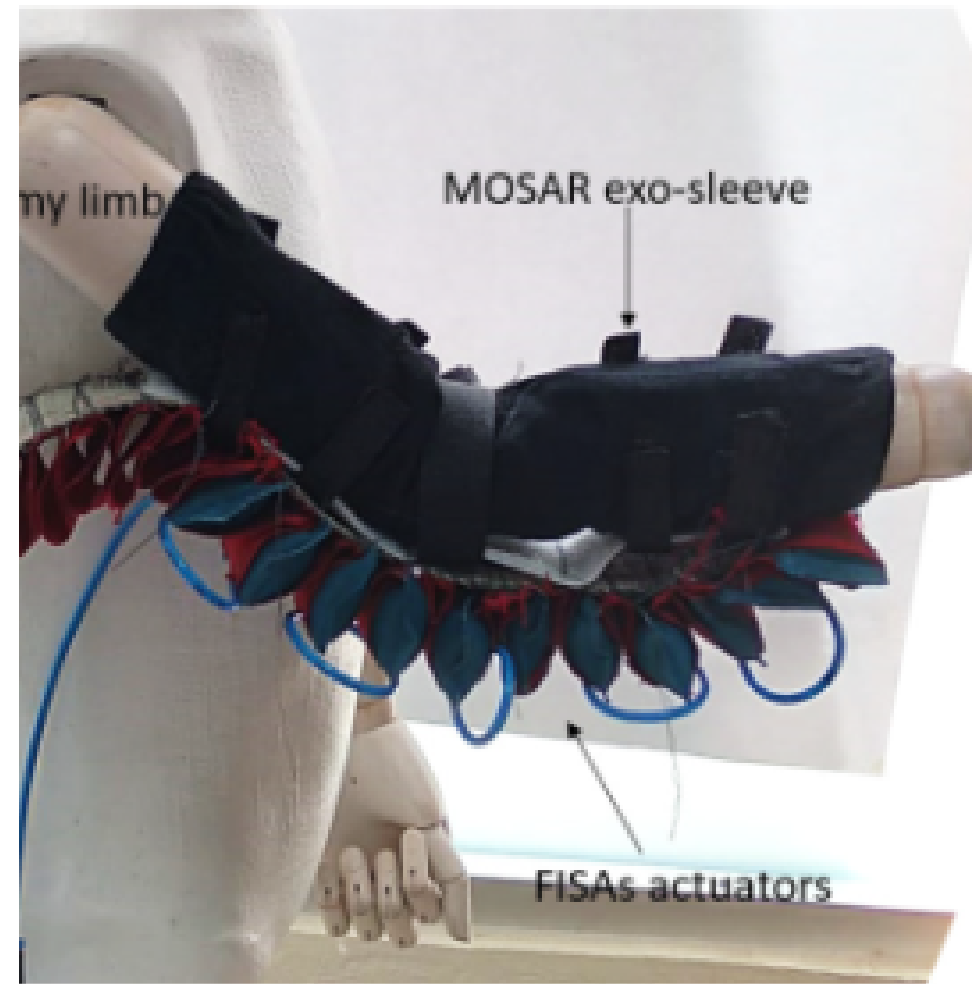
05

Compile and share!

ABOUT



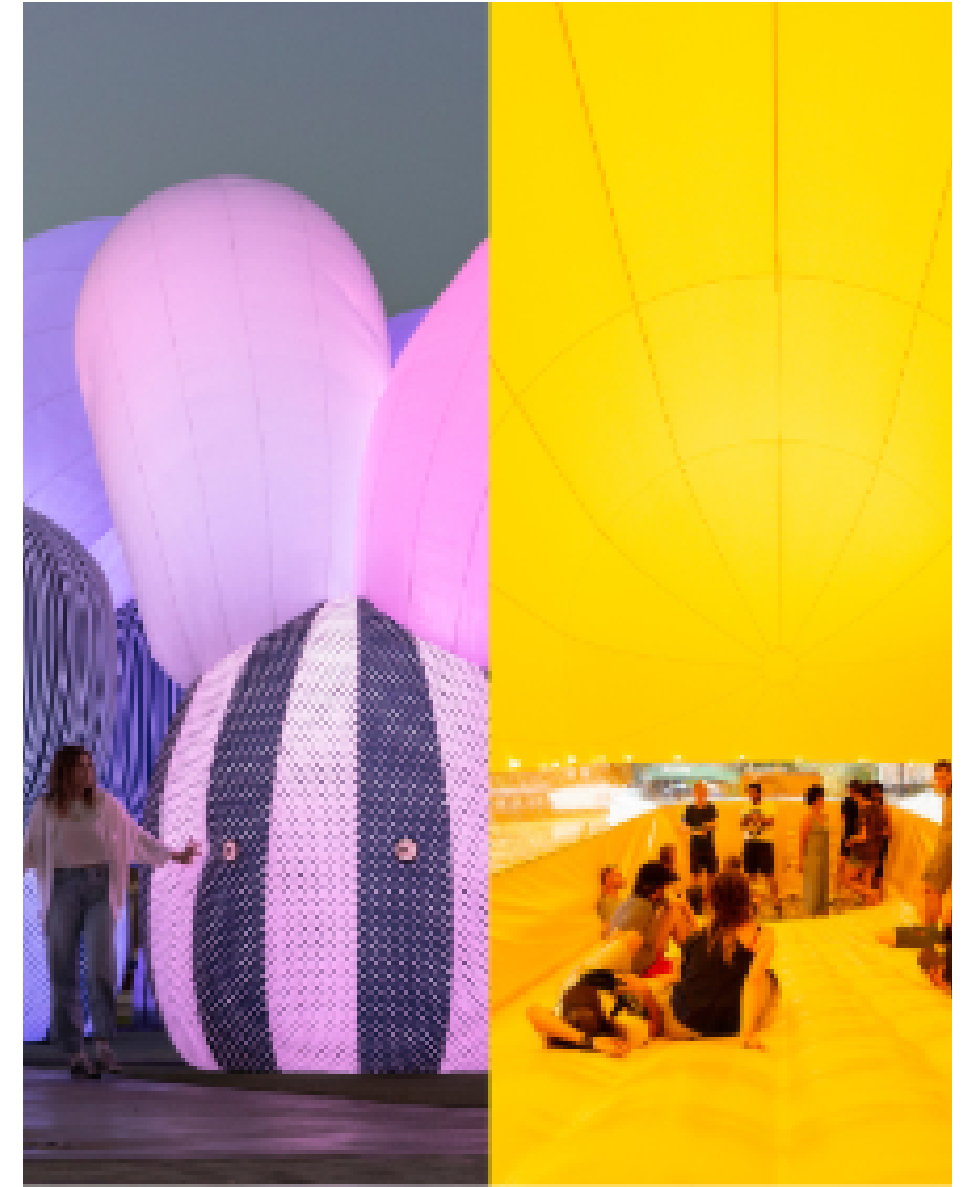
FASHION



MEDICINE

- Inflatable textiles have been used across multiple fields, from fashion to medicine.
- Air is no longer **just** filling space: It is shaping structure, behaviour and interaction.

SPORTS



ART



ARCHITECTURE

INTRODUCTION

- Knowledge is scattered.
- Most of the processes rely on trial and error.
- Techniques and results are inconsistent and hard to reproduce.

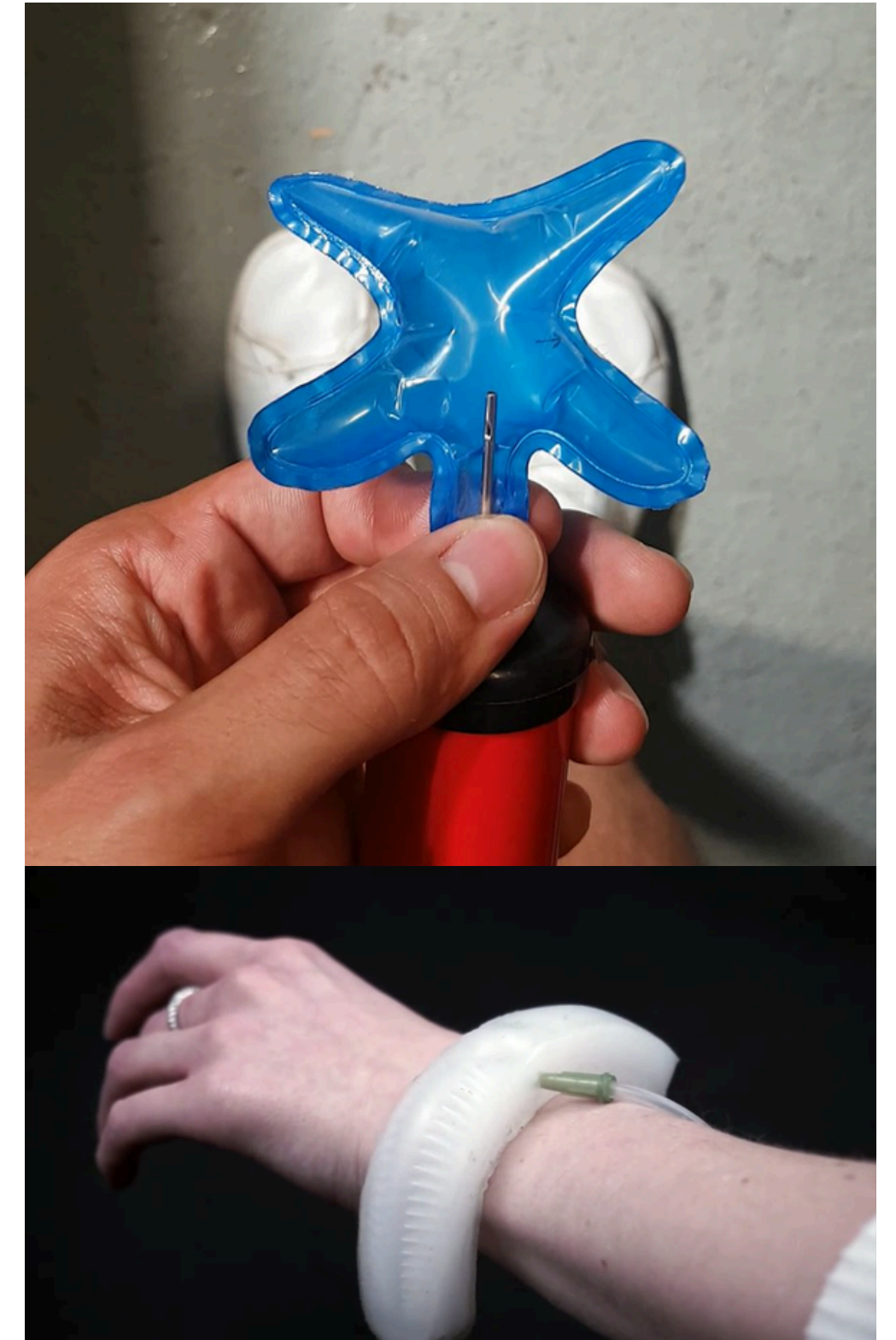
- What we need is:

OPEN SOURCE INFORMATION

Some kind of repository for sharing knowledge and techniques focused on inflatable textiles, and it's varied applications.

REPEATABLE
REPEATABLE
REPEATABLE

Tutorials, videos, resources from a world-wide community who share their processes and results.



Special thanks to Saskia Helinska and Javier Alboguijarro.

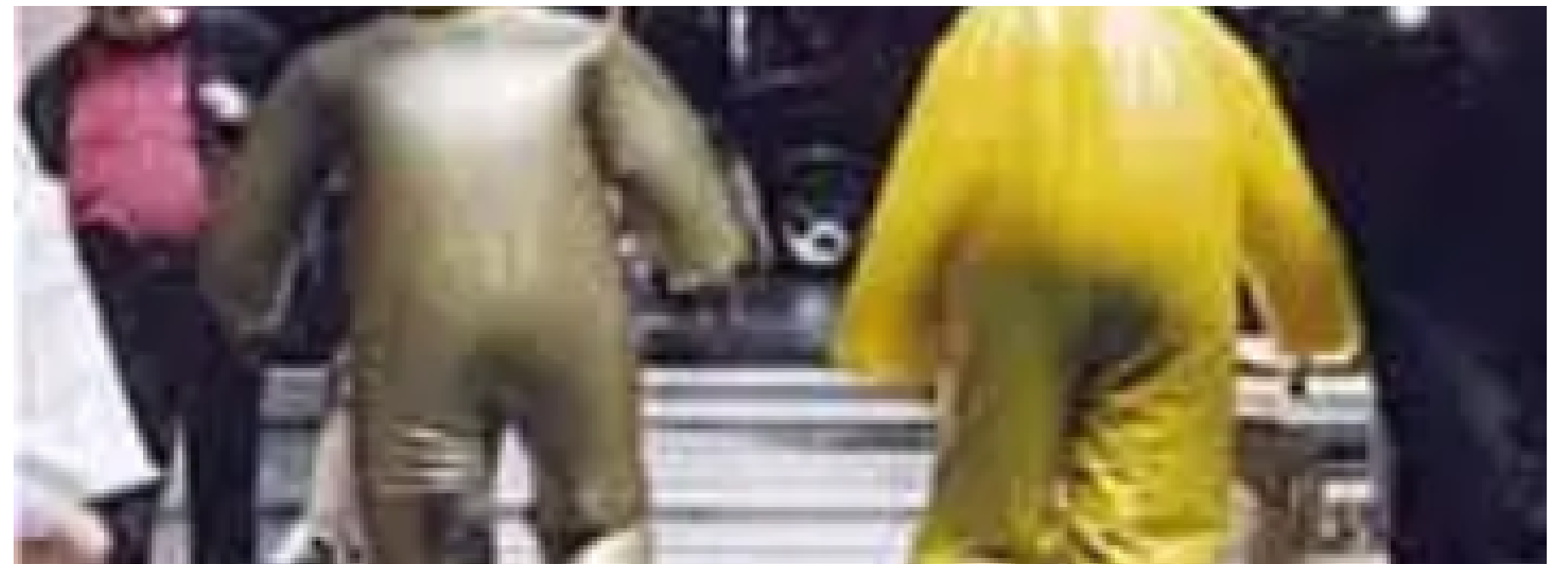




HOW IS THIS BEING HANDLED?

TEXTILES UNDER PRESSURE

How can one manufacture inflatable textiles in a way that is understandable, reproducible, and accessible?



PART 1: INFORMATION

What makes a textile inflatable?

- Air chambers
- Layers
- Seams



The goal of this part is to gather as much information as possible, about what has been done, different processes, materials and even the design.



PART 1: INFORMATION



SOURCES

People who know more about it, and are kind enough to share it via papers, books, or articles.

STATE OF THE ART

What has already been done? By whom? What kind of methods were used?

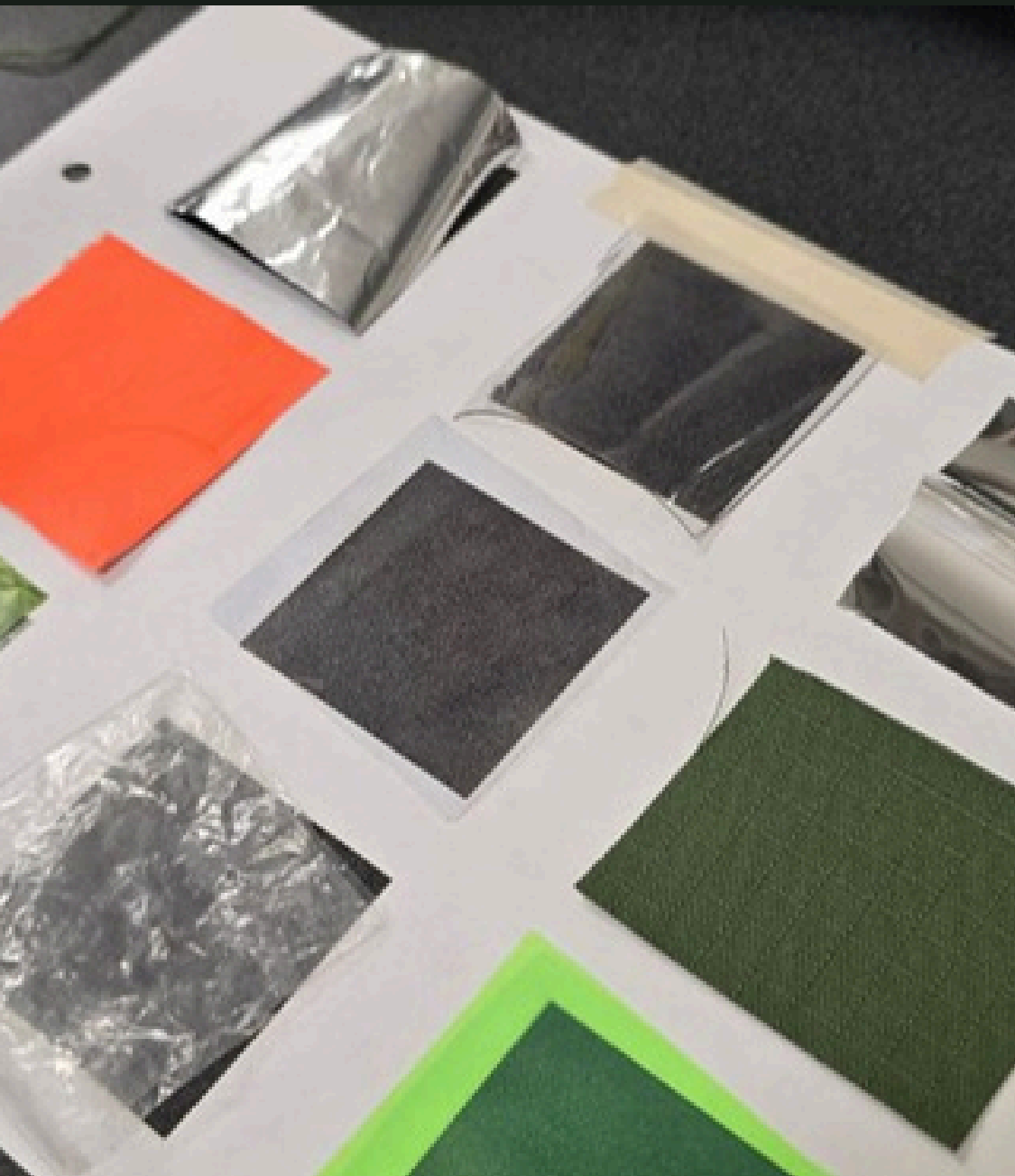
MATERIALS

These materials should be easy to find, non-expensive and non-toxic.

DESIGN

How to properly design for this applications, before executing any experiments.

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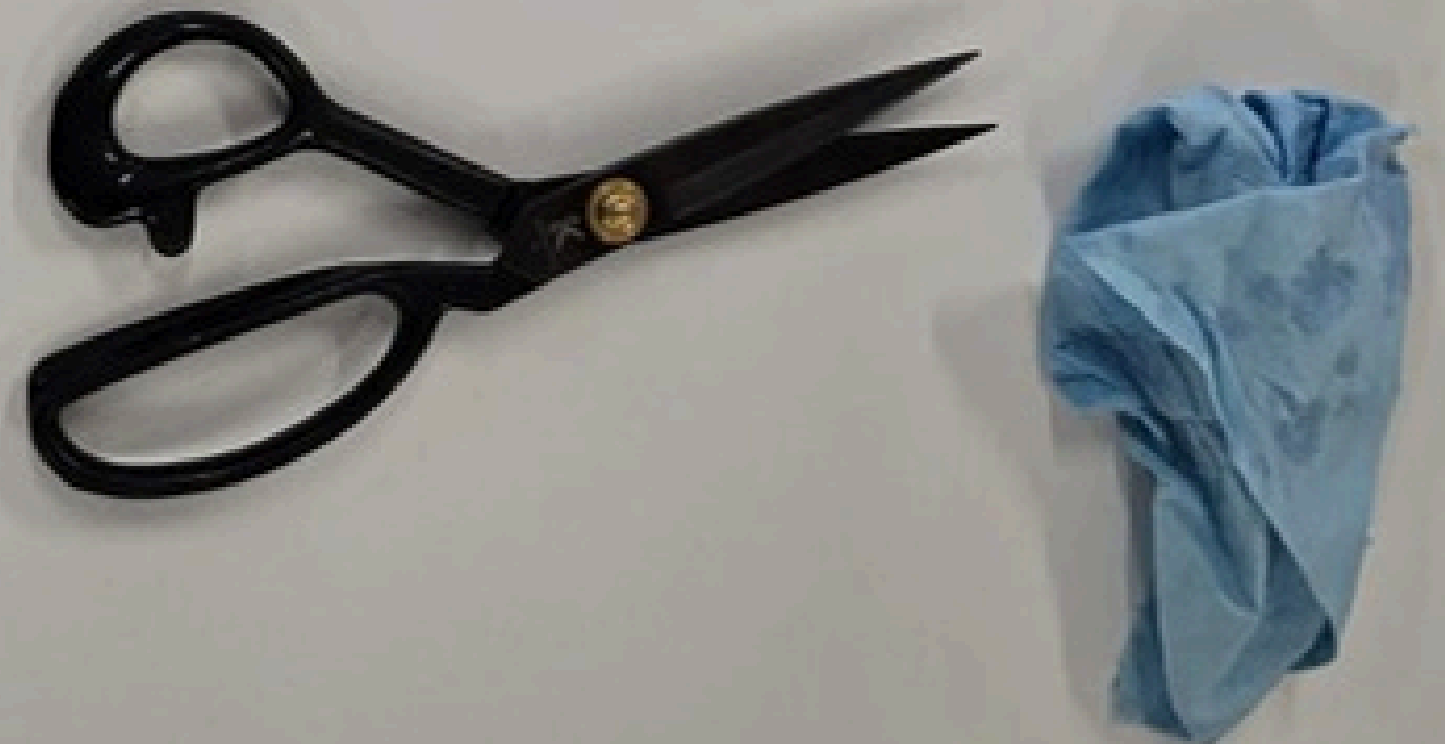
“THIS RESEARCH PROJECT IS A WORK IN PROGRESS AND WILL CONTINUE TO BE SO.”

PART 2: TESTS

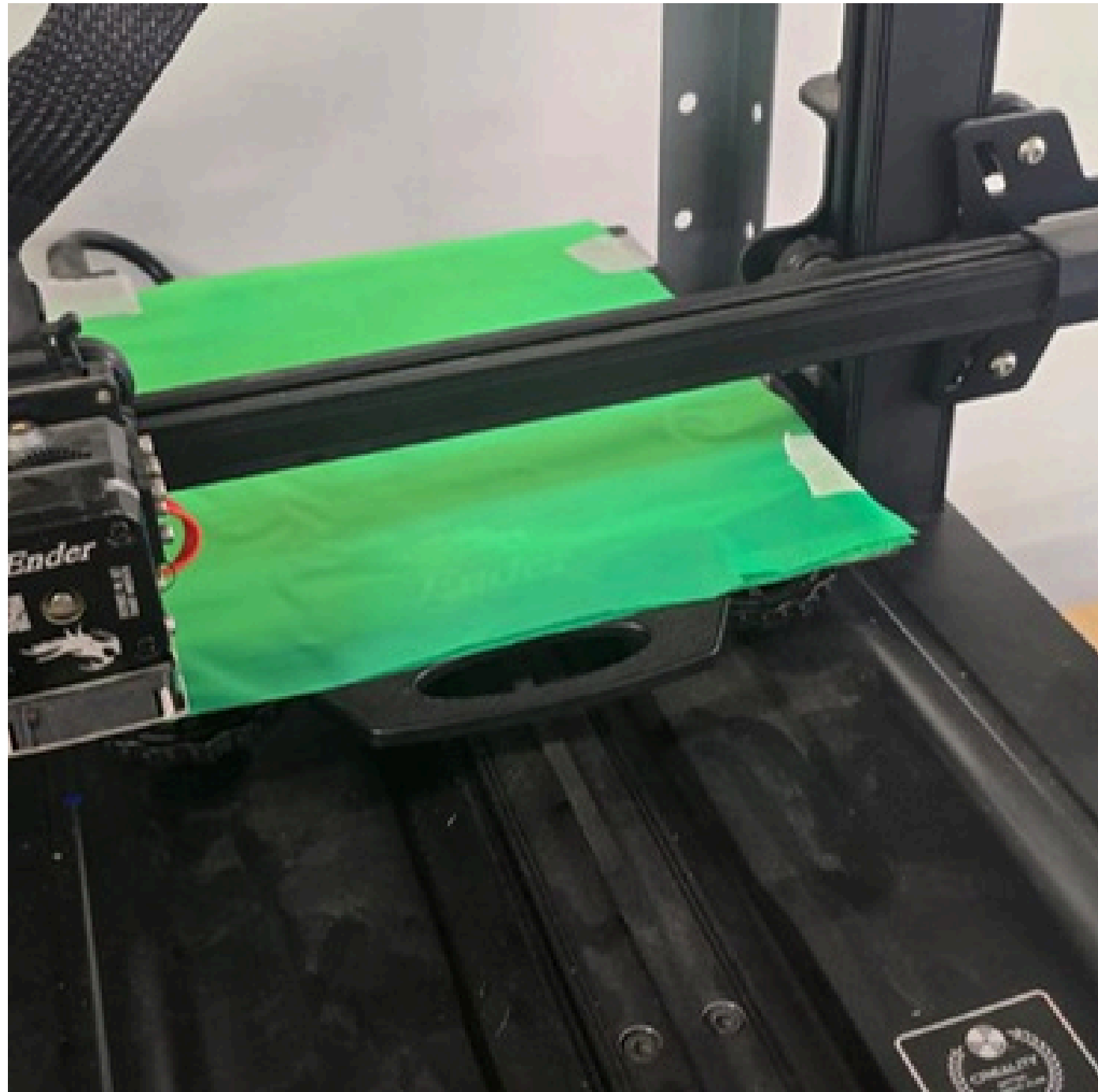
The goal of this part is to test the theories researched previously, and to prove their effectiveness, or on the contrary, to disprove them.



Hands-on research based on the insights found previously.



PART 2: TESTS



TOOLS

Machines, tools and parameters for each.

MATERIALS

Review on the materials researched.

VARIABLES

which parameters are the most important and valuable for the results we want?

PROCESSES

Based on the machines and parameters, how can we optimize them for better results?

FAILURES

Based on experience, which are the most common errors, and how to correct them.

PART 3: THE BOOK

There are two important parts of this product:

- The book with all the information, samples, parameters, materials, failures, and conclusions.
- An online tutorial/resource to reproduce the book everywhere in the world with access to a FabLab/Makerspace, with all the files, bill of materials, steps, guides, etc.

↘ The goal of this part is to compile as much information as possible, and share it freely through a reproducible book.



STEP-BY-STEP GUIDE



Tutorial-like guide for reproducing the book with basic digital fabrication machines.

MATERIALS



Thorough guide for choosing the best materials, and also how to experiment with non-listed materials.

FILES



All the files for printing, laser etching, 3D printing, sealing and complementing the book.



THE BOOK



NEXT STEPS...



GARMENTS

Prepare garments for runways to *make some noise* about the inflatable textiles and techniques.

PLATFORM

Is it possible to create a platform for sharing and complementing this processes? Reddit - Materiom

WEBSITE

Complement information about the production, processes, materials and allies.

COMMUNITY

Gather a big online community around inflatable textiles which helps each other, shares projects and becomes a network.

CONTACT?

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THANK YOU

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