

SAFE BIS FOLDABLE DISASTER SHELTER

INTRODUCTION

Every year people become homeless due to disasters
Thus, our mission is to help those people by designing shelters that can be deployed rapidly in disaster areas.
We intend to provide shelters to the people in need.

That is the purpose of The Foldable Disaster Shelter.

CONCERNS

Provide safety
Minimize the damages people suffered
Be sustainable AND sustainably manufactured

DESIGN THINKING

Hexagonal shape for sturdiness and identity
Foldable mechanism study and cardboard prototype

METHODOLOGY

Agile Project management with SCRUM
Technical Functional analysis with Horned Beast and Charts
Market situation study with SWOT
Communication and stakeholders analysis

MATERIALS

Wood, Cork and Cotton :
A unique combination of natural, sturdy and sustainable materials
Combining the safety of our users and the respect for the biodiversity and perfect fit in a rural environment.

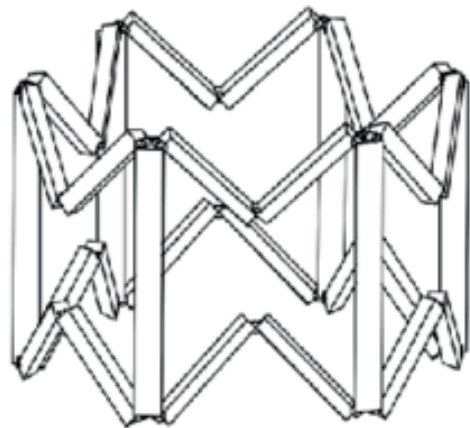


FOLDING MECHANISM

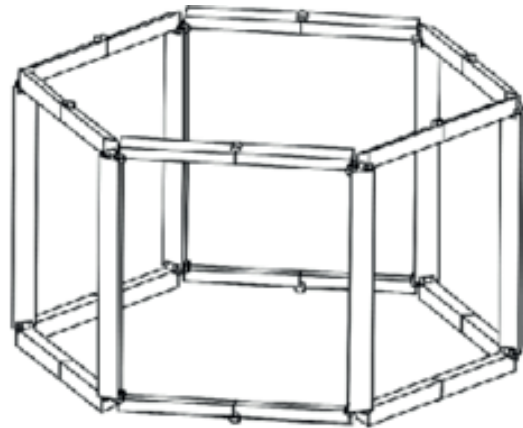
An innovative design allowing a huge gain of space.
From a compact format to the iconic honeycomb shape.



(a)



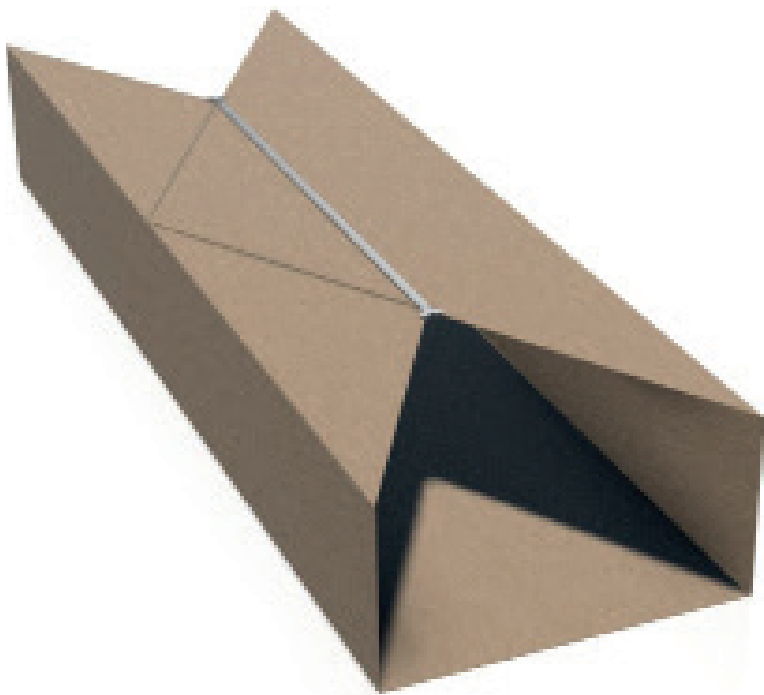
(b)



(c)

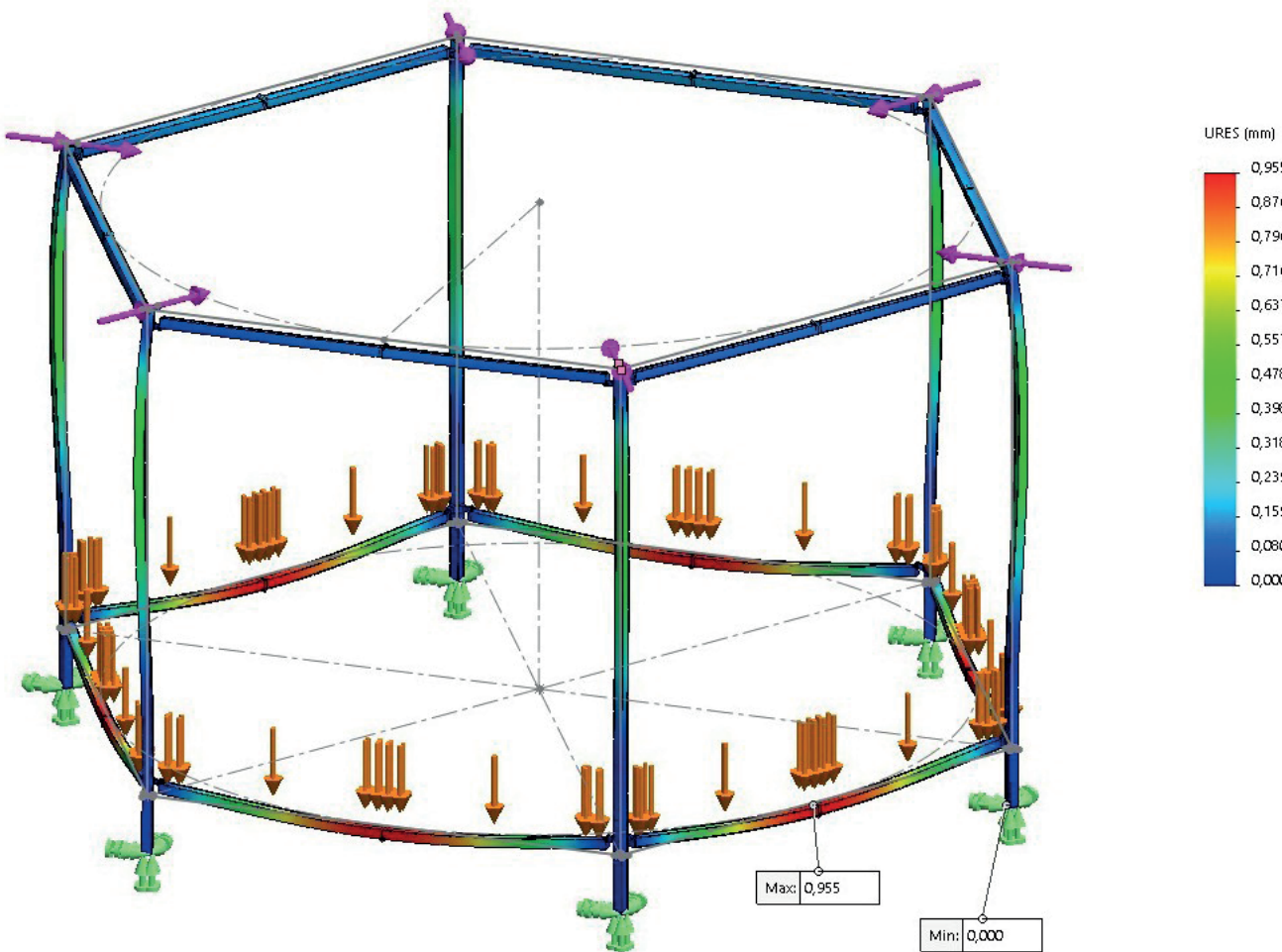
PACKAGING

Using the cork floor to create a sustainable and aesthetic packaging,
The idea of creating an origami experience to discover your new shelter



SIMULATION & SPECS

Using acknowledged CAD software like SolidWorks we designed our shelter following strict protocols with simulation of forces and bending moments involved.



URES (mm)
0.955
0.876
0.796
0.716
0.637
0.557
0.478
0.398
0.318
0.239
0.159
0.080
0.000

Jelte Bakker

Lore Pauwels

Eduardo Canossa

Vladimir Dukoski

Andreea Popescu

Gabriel Givanovitch