Cyber-physical space

Interim presentation

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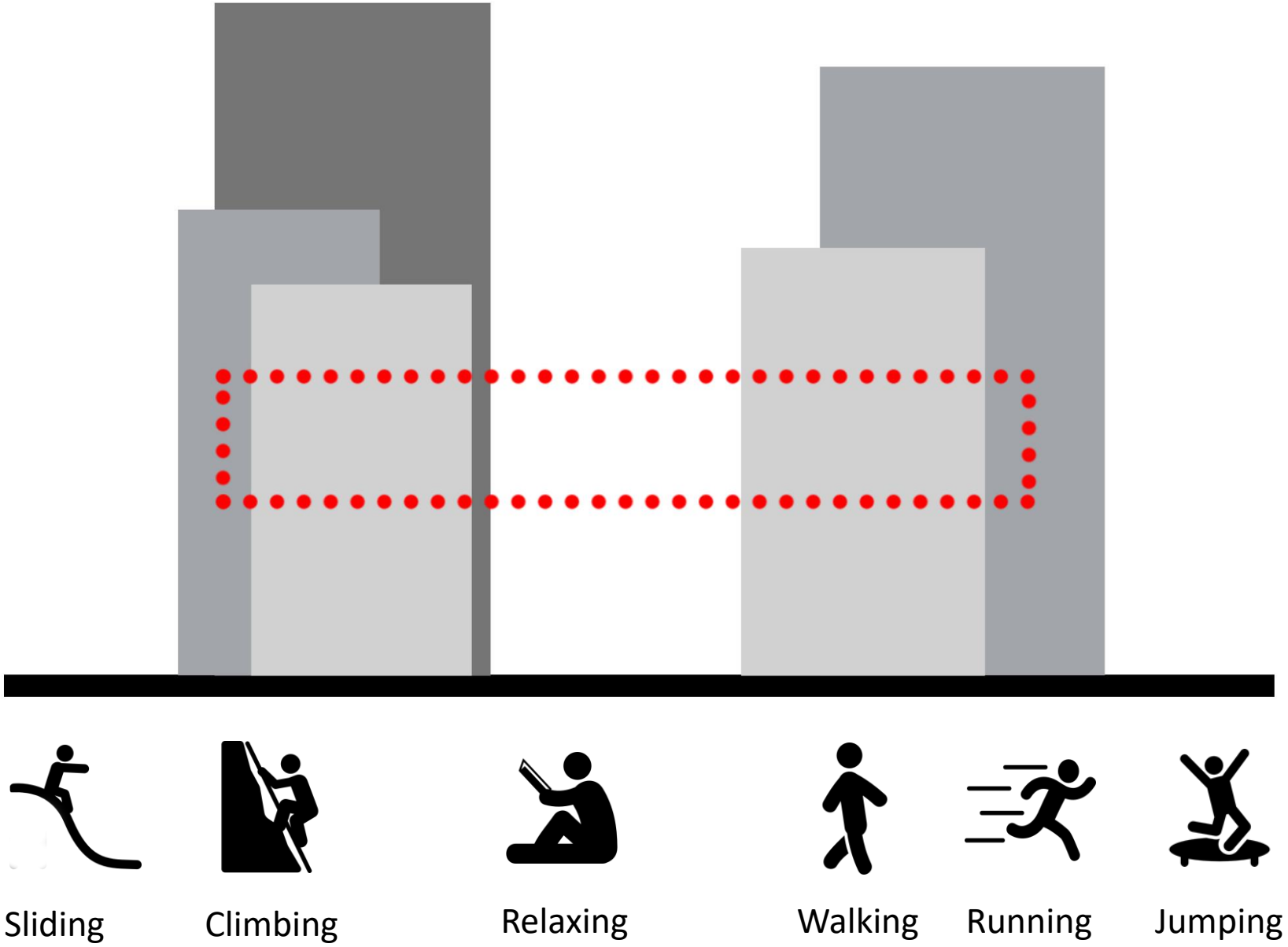
Leander Bakker
Erik Bakker

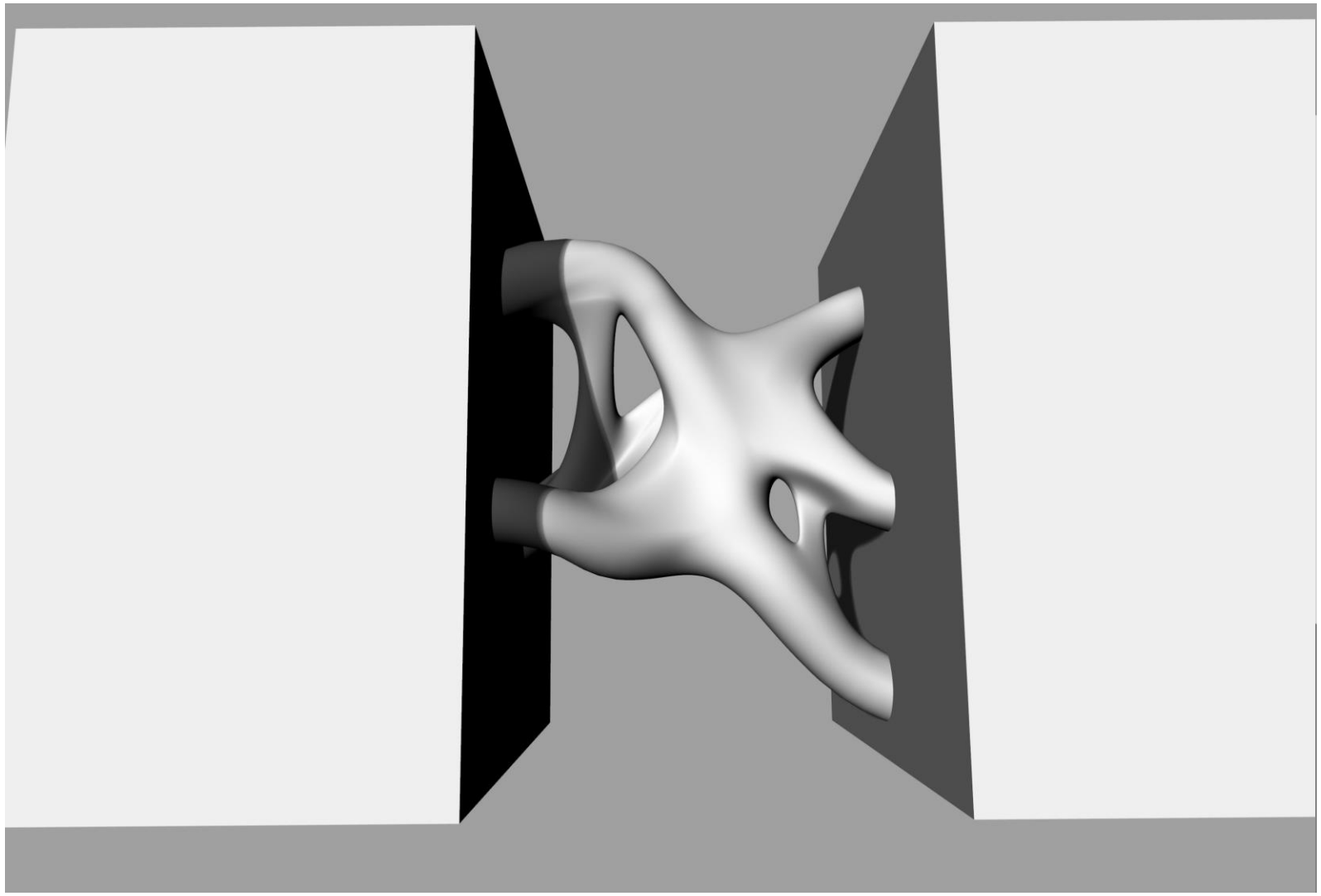
GROUP 3

Vision

Creating a (sub) level within the existing city that connects people and their buildings. By creating an interactive playground.



Initial sketches



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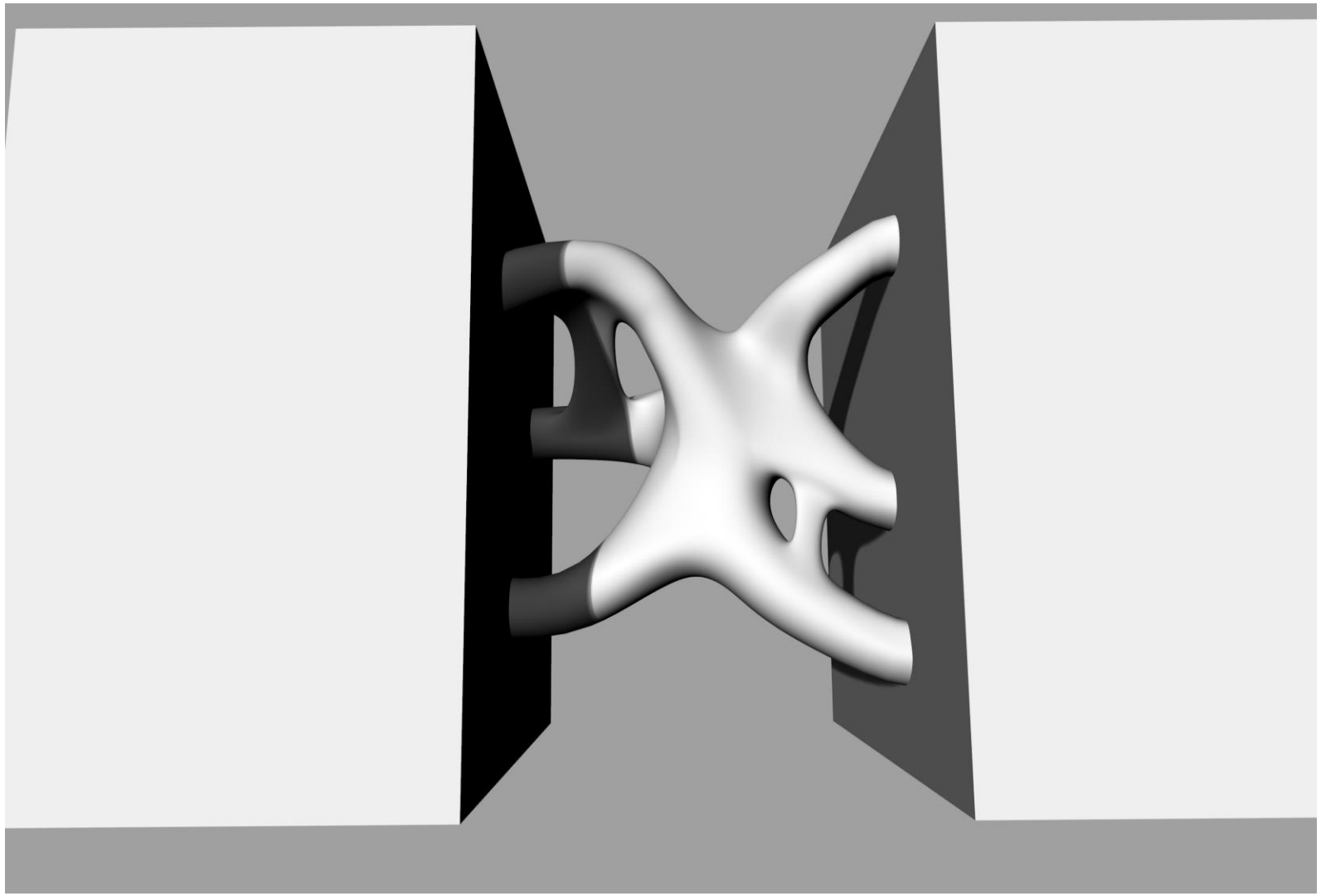

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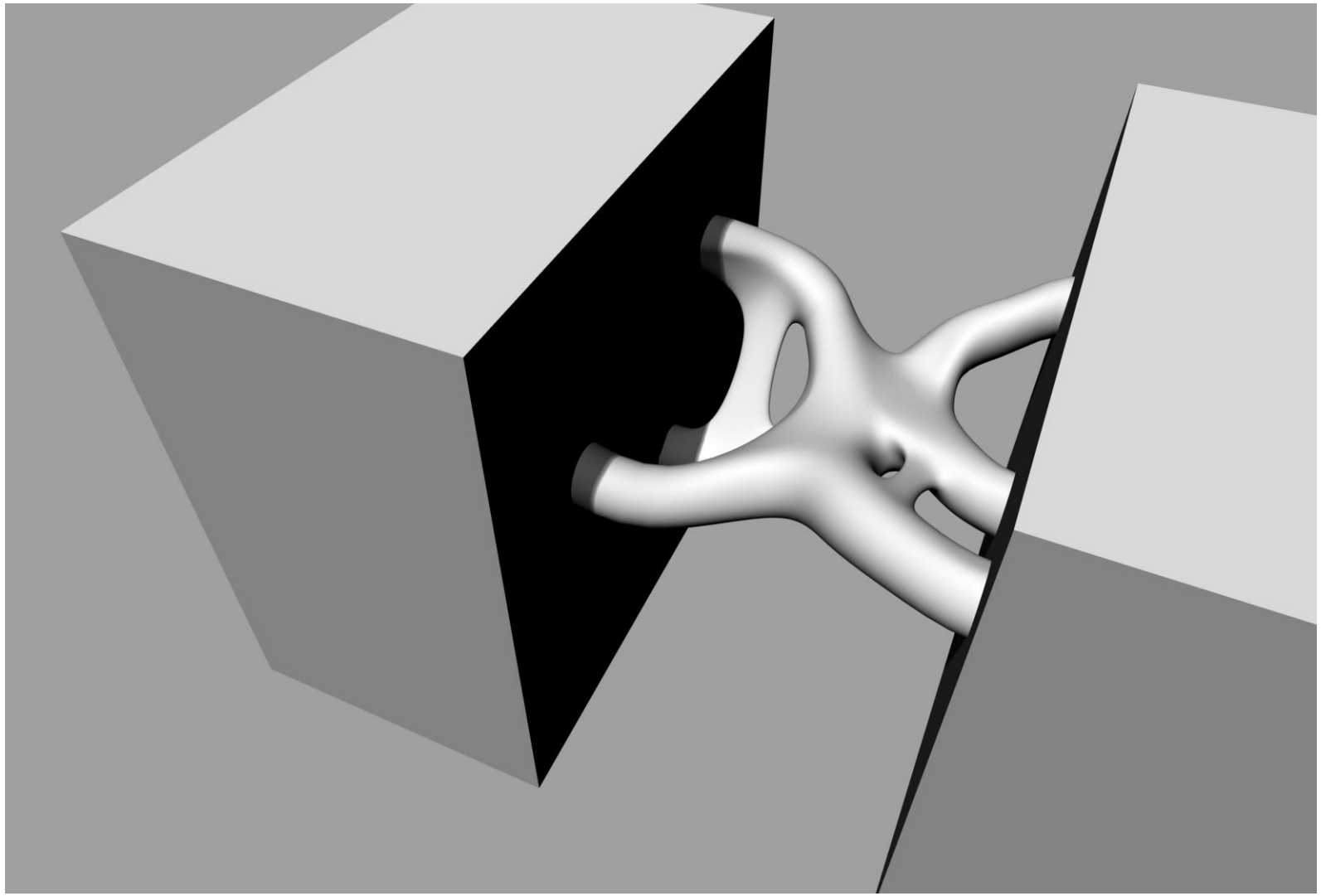

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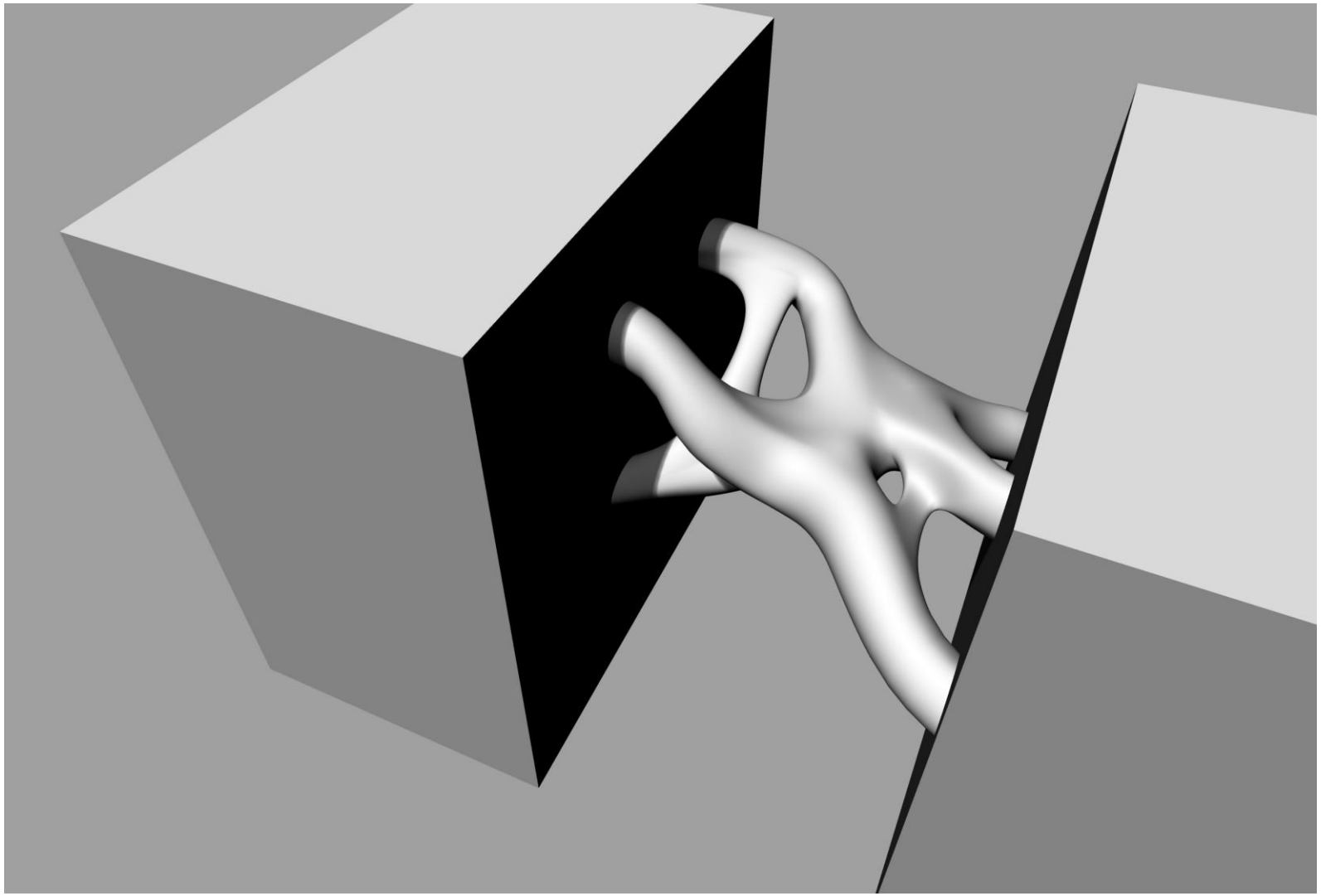
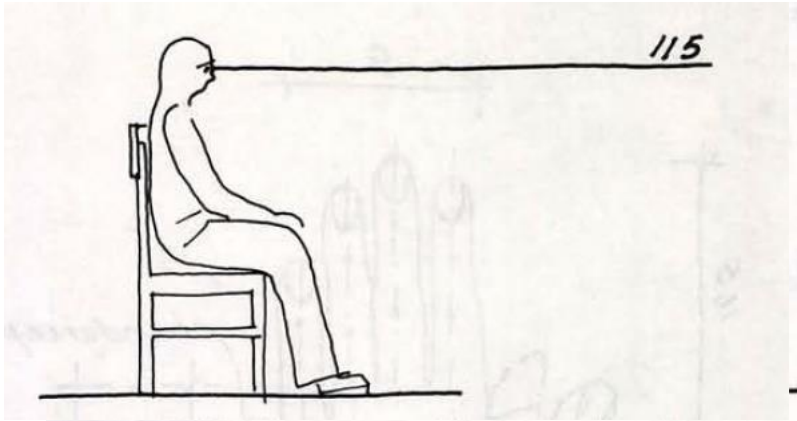
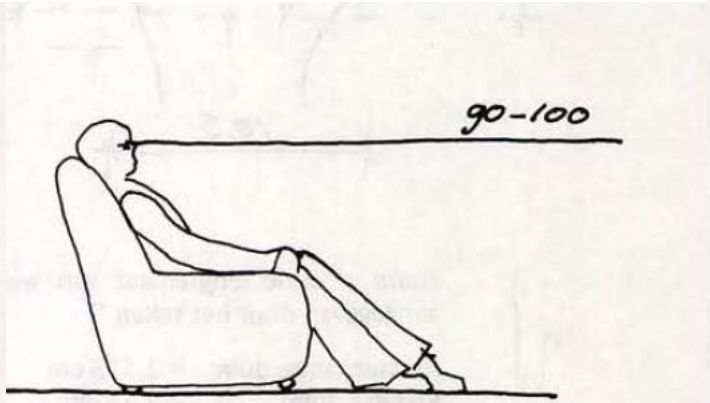
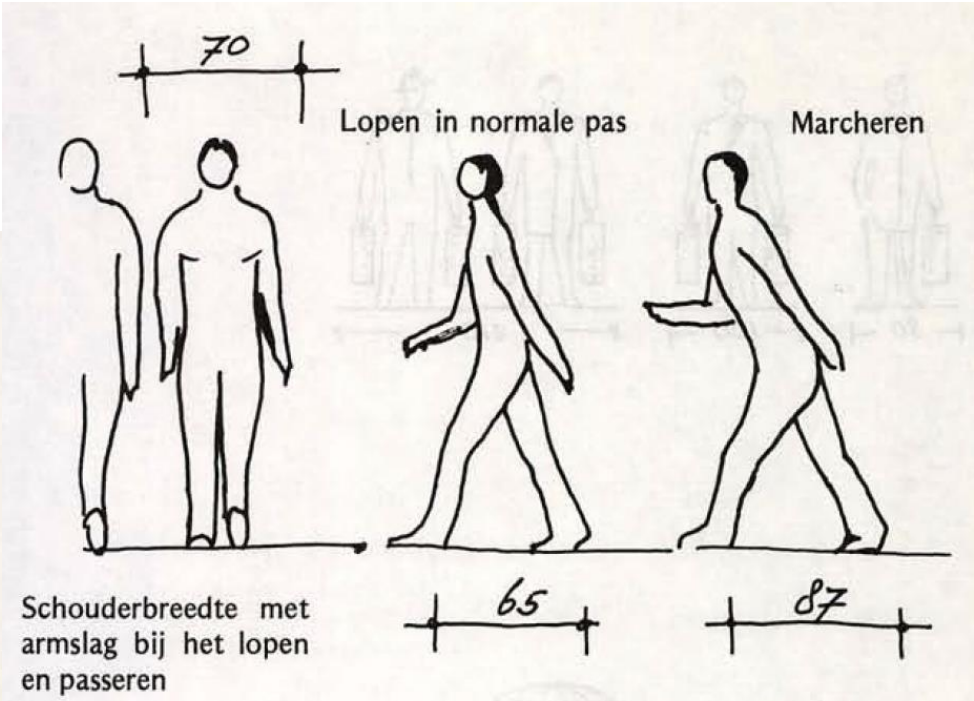
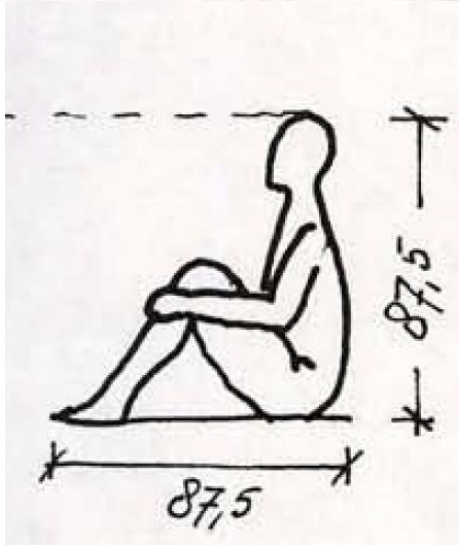


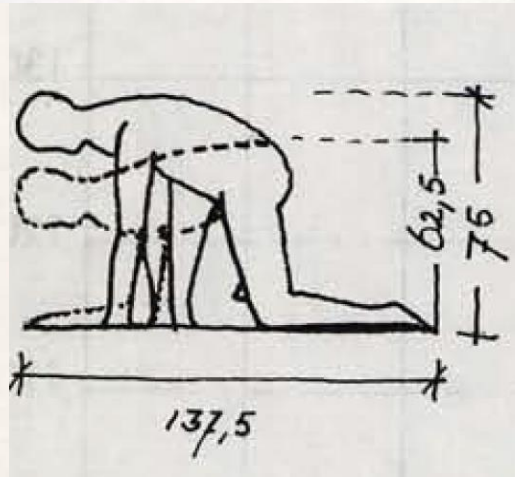
Dimensions





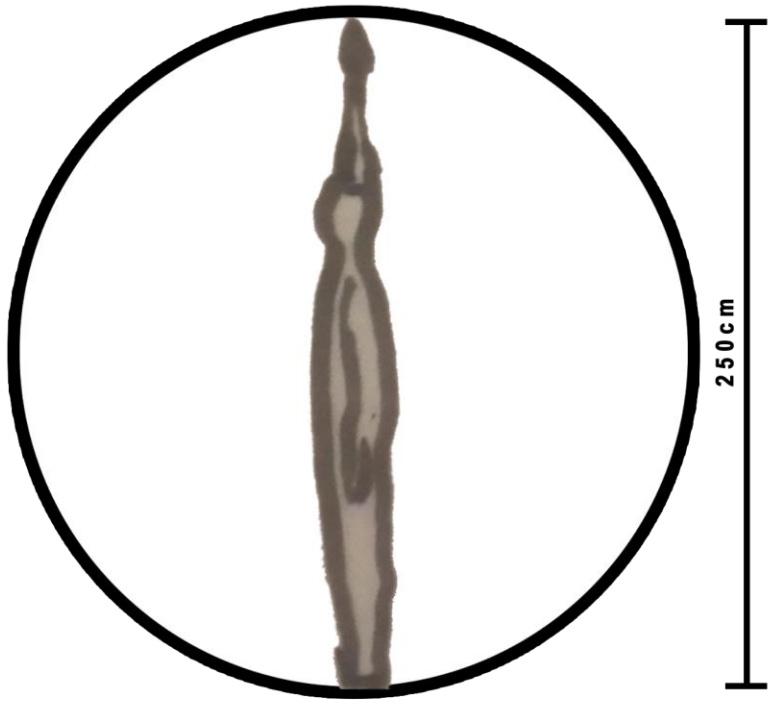




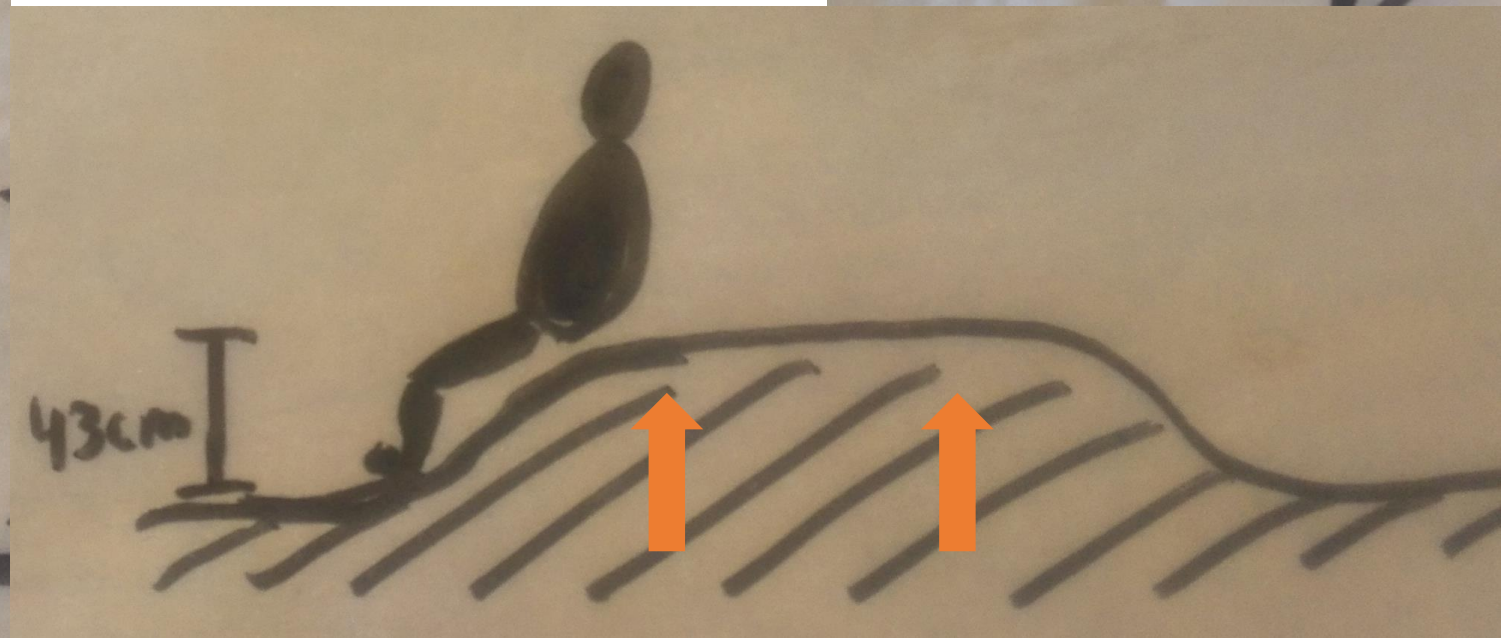


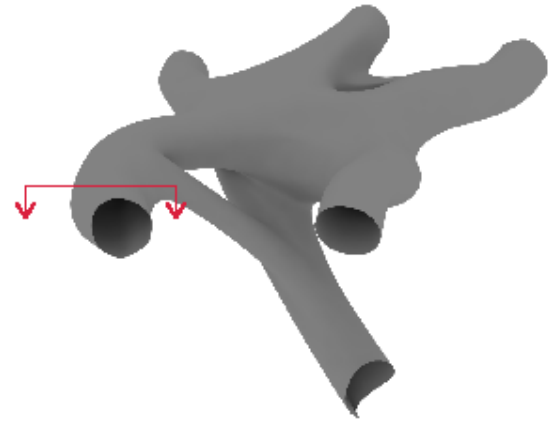
Source: DE MENSELIJKE MAAT
Prof. ir. A.J.H. Haak & ir. D. Leever- van der Burgh

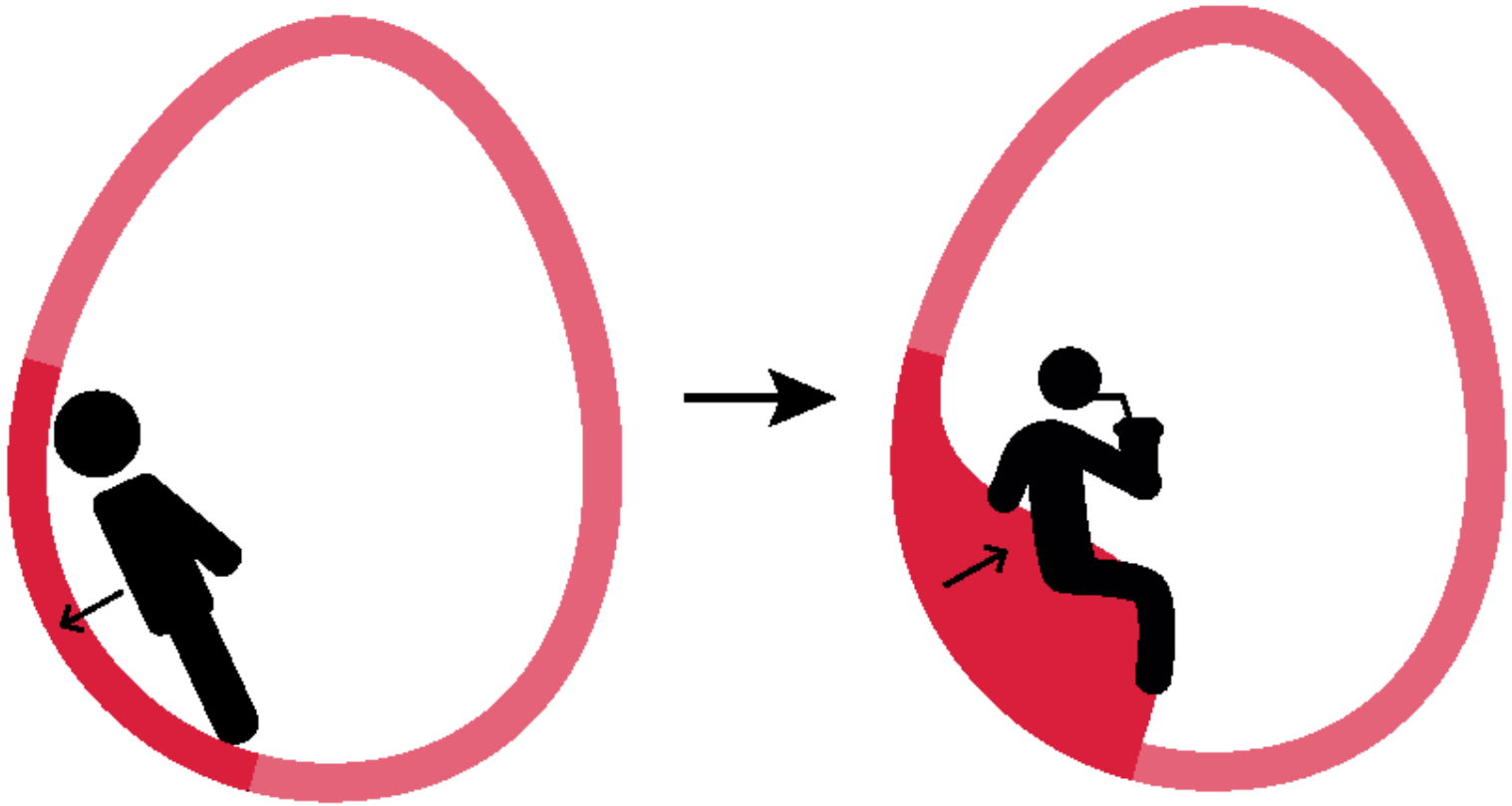
Dimensions



Reconfiguration - Landscape



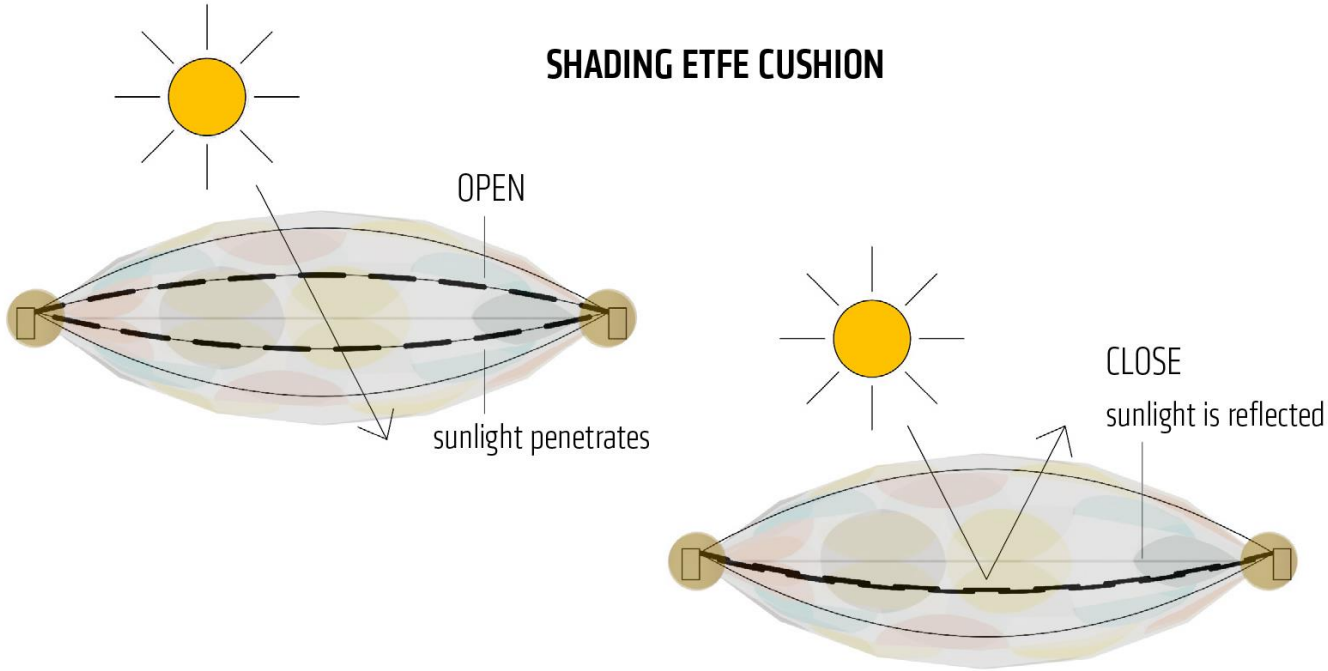




PRESSURE OF THE BODY ON THE INFLATABLE LAYER

BLOW UP CHAIRS APPEAR

Materialization



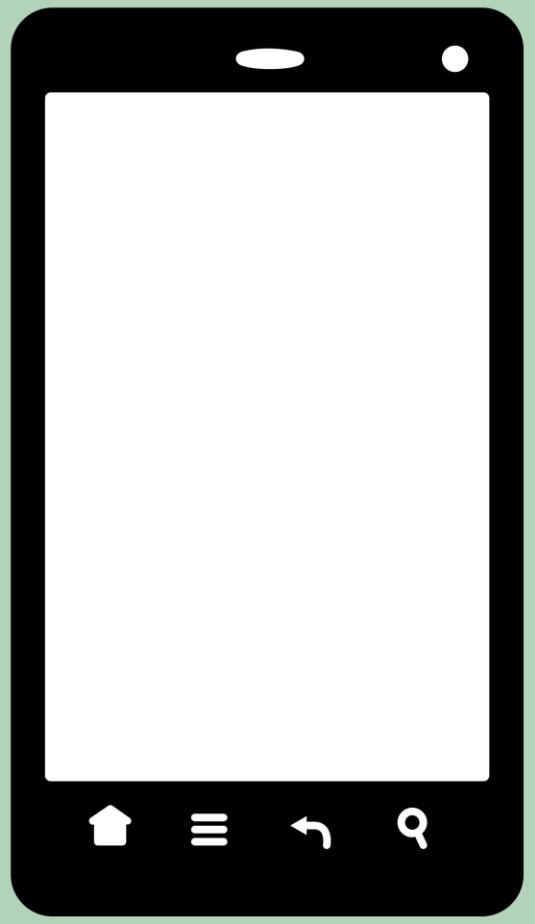
MARC FORNES / THEVERYMANY
UNDER MAGNITUDE

ORANGE COUNTY CONVENTION CENTER
- ORLANDO, FLORIDA (2016)

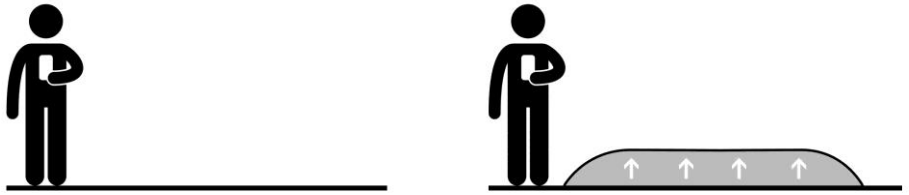
TH1 -VILLIEN / FERNANDEZ

PRIVATE HOUSE IN LYON, FRANCE 2009

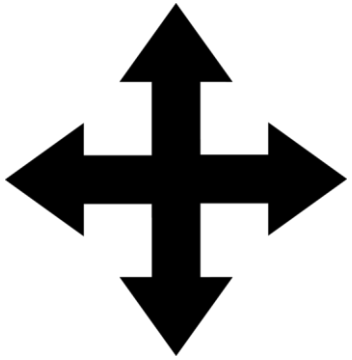
Interactivity

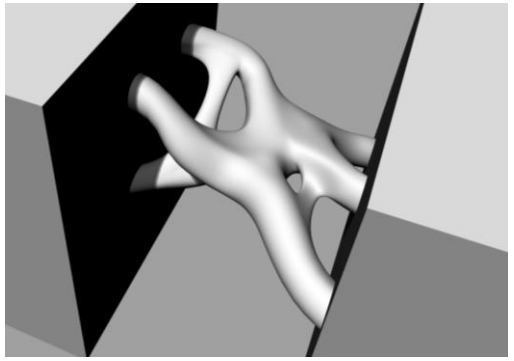


Adjustable furniture



Reconfiguration arm





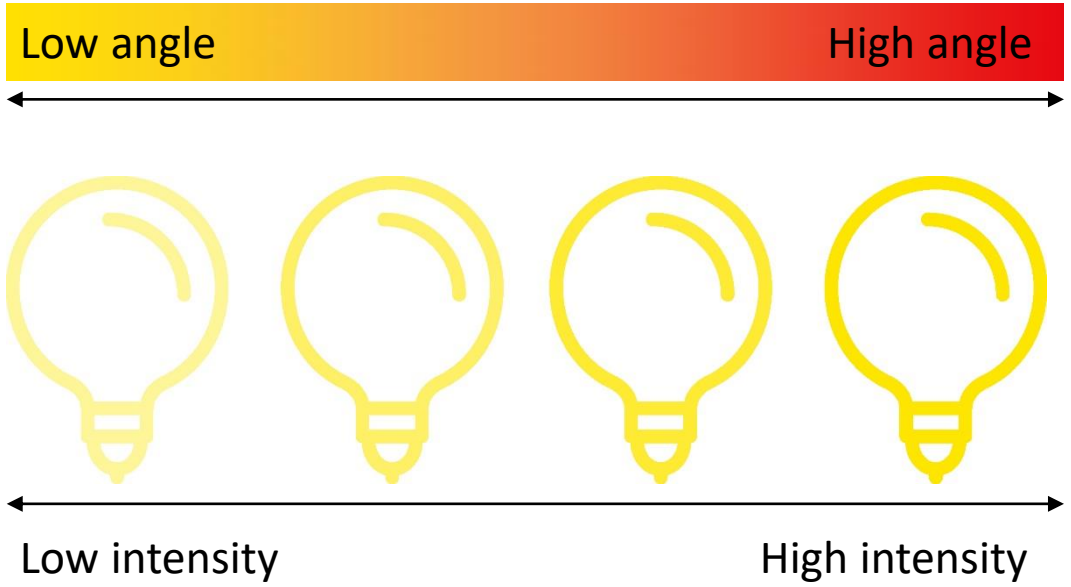
Game mode

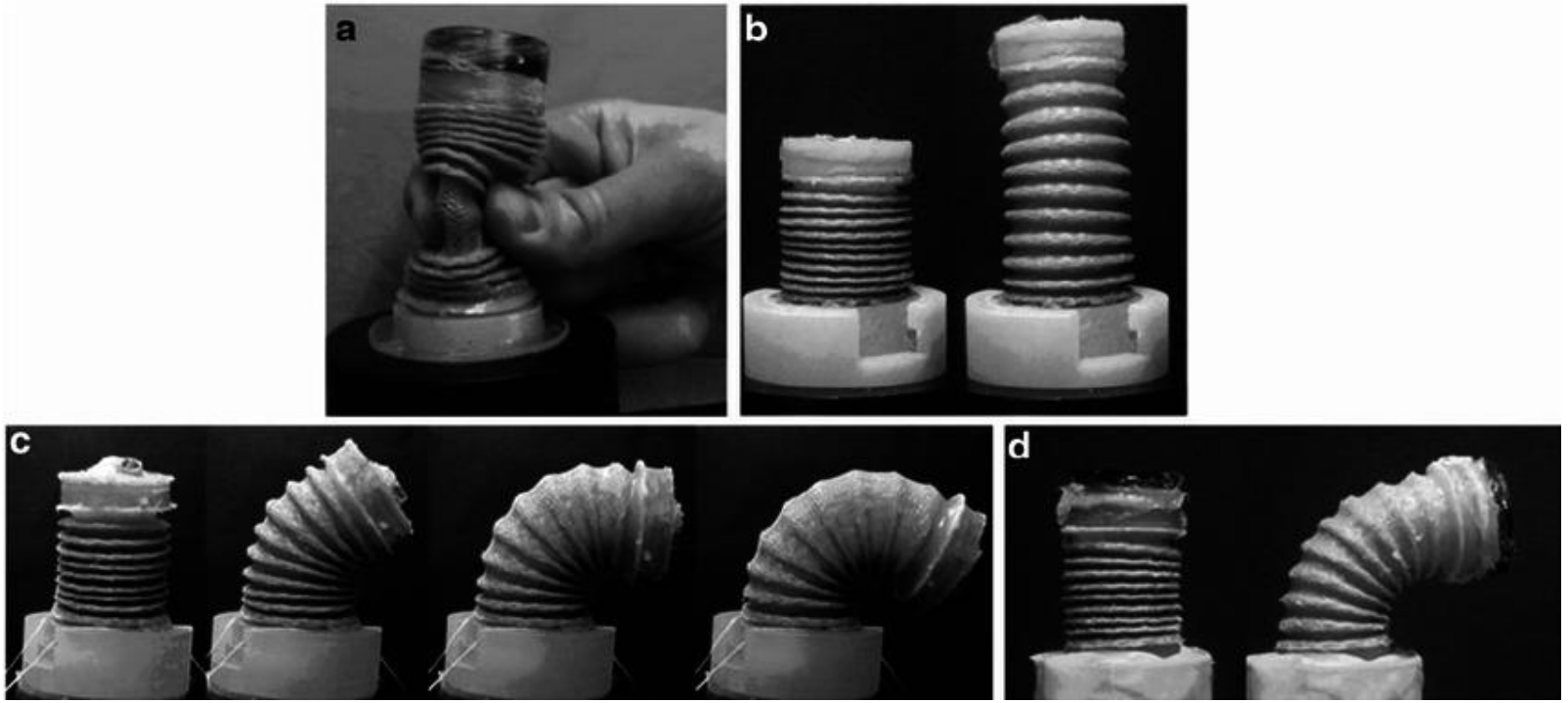
Interactivity

Coloration

- The angle determines the colour

- The usage determines the brightness




a
b
c
d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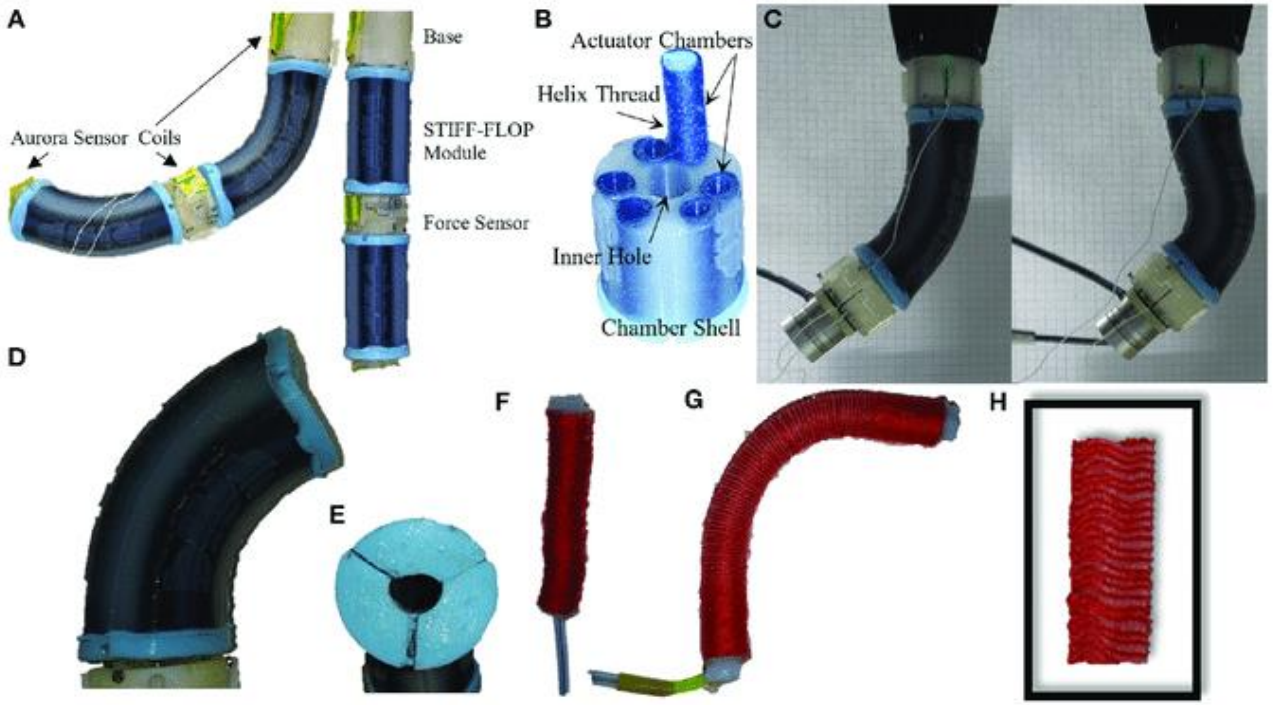
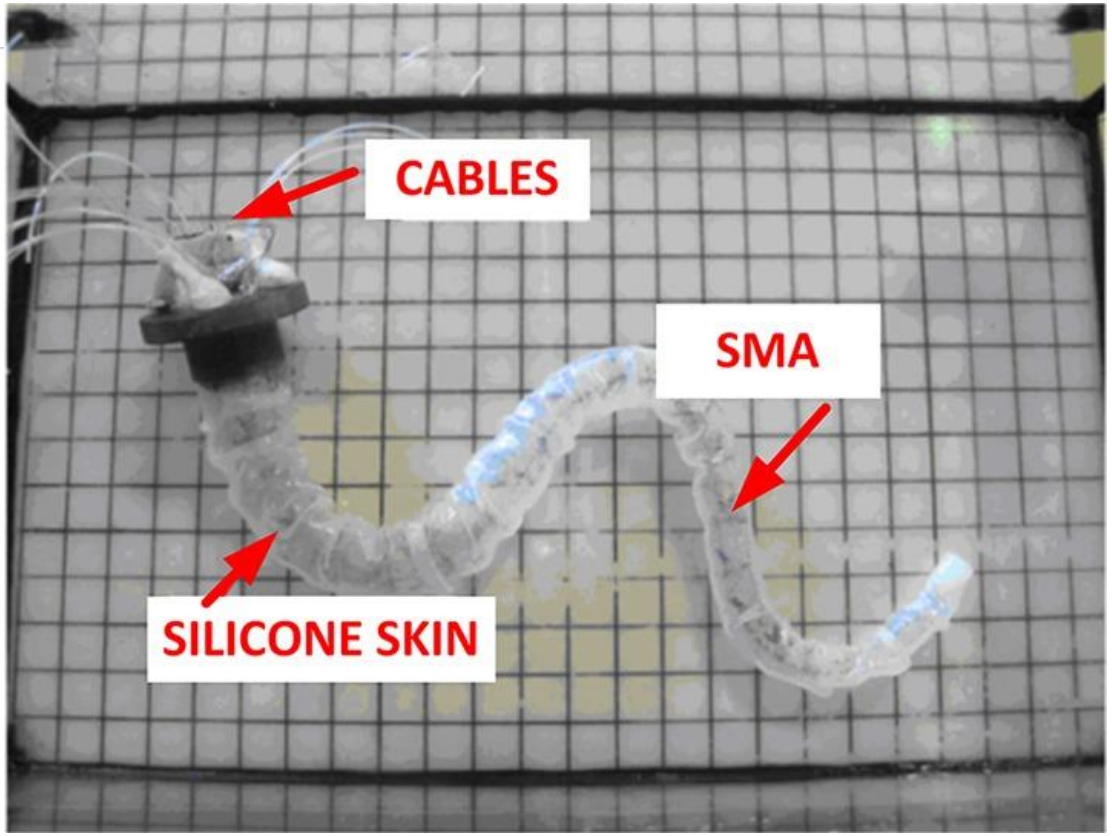
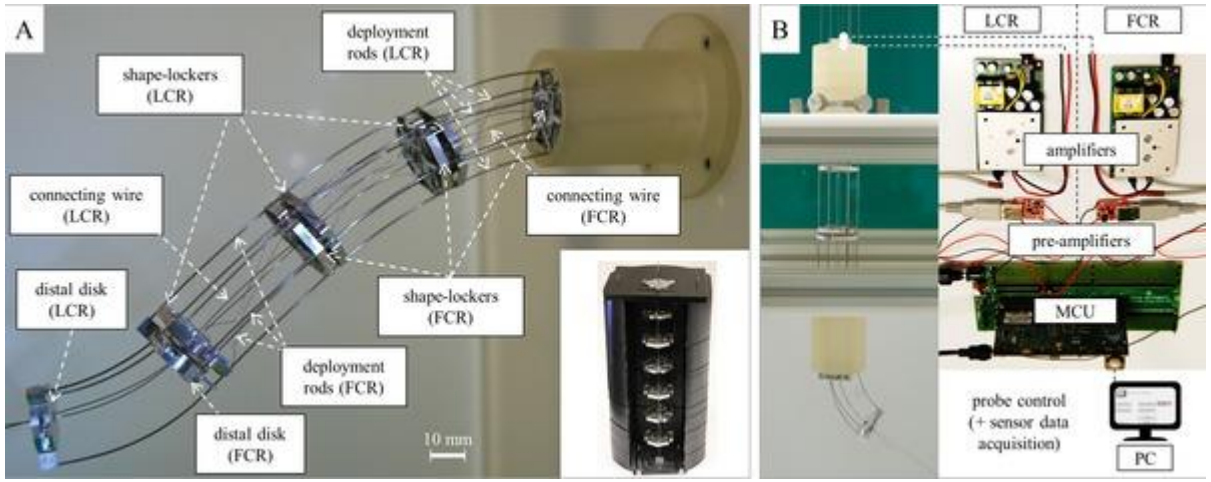
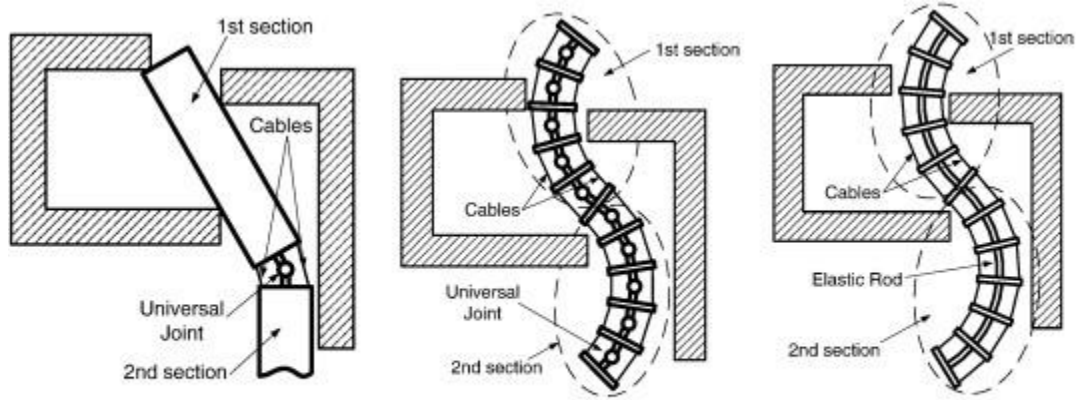
Manipulator
conforming to
environment









(a) single universal joint model

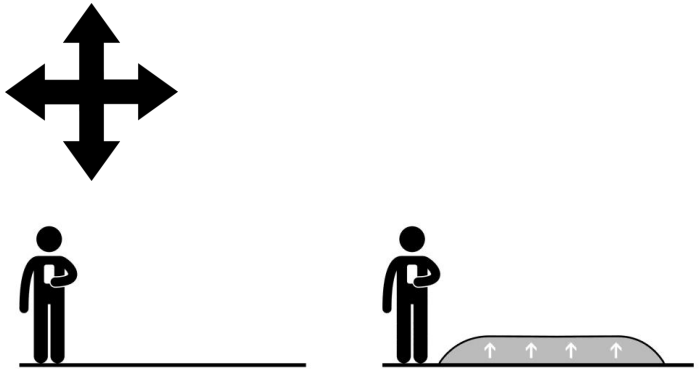
(b) multi universal joints model

(c) flexible backbone model

Conclusion

- Create a playground for certain activities
- Steel structure and a soft interior

- Some tubes are reconfigurable
- Landscape is flexible
- Furniture is adjustable



- Control by users
- Sensors robotically
- Feedback by LED light