

What is the OS project about?

The OpenStructures (OS) project initiates a construction system where everyone designs for everyone.

It is an ongoing experiment that wants to find out what happens if people design objects according to a shared modular grid, a common open standard that stimulates the exchange of parts, components, experience, and ideas and aspires to build things together.

What is its purpose?

The purpose of this experiment is to investigate what the opportunities and limitations of an open modular system are and under which conditions it will prove to be most efficient and favorable.

What is its goal?

The ultimate goal is to initiate a universal, collaborative puzzle that allows the broadest range of people – from craftsmen to multinationals – to design, build and exchange the broadest range of modular components, resulting in a more flexible and scalable built environment.

What is its potential?

An open modular system of this kind has the potential to:

- generate flexible and dynamic puzzle structures rather than uniform modular entities
- introduce variety within modularity
- stimulate re-use cycles of various parts and components
- enable collaborative (and thus exponential) innovation within hardware construction

Structural build-up of OS structures

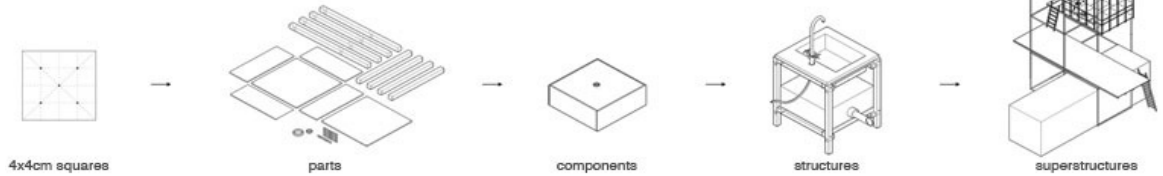
The structural build-up of all open structures follow the modular build-up of our own human body.

4x4cm squares generate parts (like panels or beams).

Parts are assembled into functional components (like fridges or drawers).

Components are put together and interconnected into structures (like kitchens or bathrooms).

Several structures are combined into superstructures (like a house).



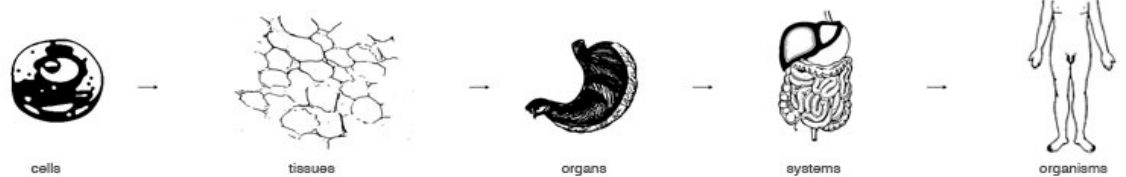
Just as ...

...biological cells generate tissues (like skin tissue)

An assembly of tissues form a functional organ (like a stomach)

Collaborating organs form a system (like the digestive system)

A set of complementary systems form an organism (like a human being)

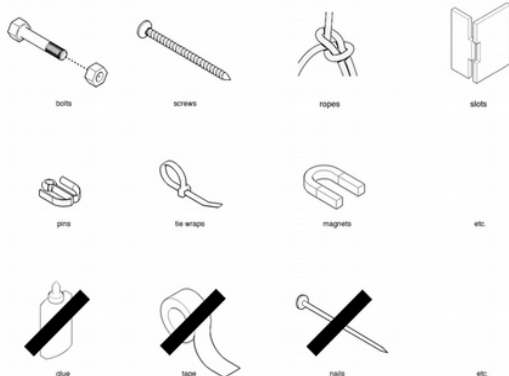


Rules of thumb

All OpenStructures should be conceived as **interdependent, dynamic puzzles**.

This means that they should be designed for disassembly and according to the same dimensional framework (**the OS grid**).

In order to facilitate their design processes several design guidelines have been developed. These are rules of thumb that need to be considered while designing any OS part or component.



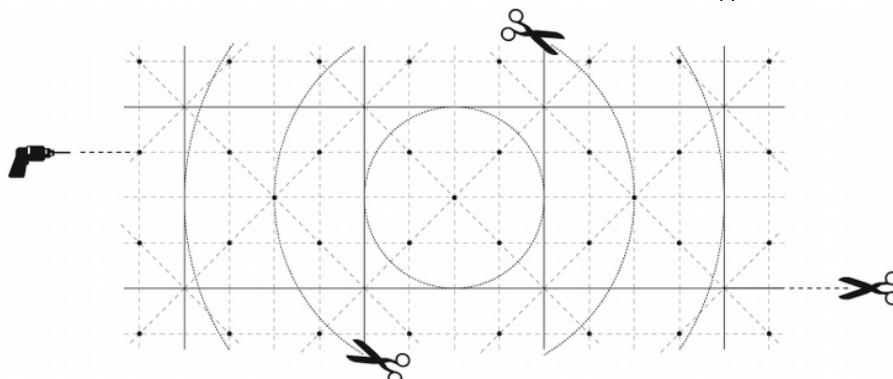
Rule of thumb No 1: design for disassembly

Favor assembly techniques that allow deconstruction without damage or loss in order to facilitate the re-use of components.

Rule of thumb No 2: design with recyclable materials



Favor, whenever possible, 100% synthetical or biological recyclable materials for your parts and components in order to support in finite material cycles. (after disassembly)



Rule of thumb No 3: design from the OS grid

Use the **OS grid** as a design tool when choosing dimensions, assembly points or interconnecting diameters in order to make your parts compatible with those of others.