AALTO UNIVERSITY SCHOOL OF ARTS, DESIGN AND ARCHITECTURE
MA FURNITURE 2020 COURSE SARK-E5000
Teachers: Professor Ville Kokkonen, Lecturer Martin Relander

Furniture: Material, Structure and Shape, 27.10.2020 - 10.12.2020

Collapsible – Knock down furniture PART 2

Course Assignment 1
The task is to design and make a prototype of a collapsible chair. The idea is to develop a lightweight, durable and easy to assemble and dismantle, knock-down, flat-pack furniture. A carry-on package with assembly drawings is also part of the design task.

The idea is to create a space saving furniture, for easier storage and transport. The course focus is to find a balance between pragmatic assembly with standard fasteners, and appropriate material usage, that result in a personal artistic outcome.

There are several methods of obtaining the collapsible function. Each with its specific advantages and problems.

The collapsible structure requires special attention and type of joinery of the chair must be solved by using knock-down details and fittings, so that the assembly and disassembly can be achieved with simple tools.

Use standard wood/plywood and aluminium sheets for the design. Other materials, like plastic, textiles, foams or composites may be considered, if they are convincingly presented.

Design process
Sketches, drawings mock-ups and scale models are expected to be prepared for communicating your design for the tutoring sessions and course reviews. 1:1 scale functional prototypes will be produced at the school workshops. For the production of prototypes CAD/CAM data will be used to product the parts directly from your drawings.

Evaluation criteria
Design concept development, ideation, and design process presentations and documentation.
Inventiveness, technical logic and development of the furniture.
Feasibility of production. (Use of materials and processes)
Quality of execution

Course Assignment 2
The task during the second stage is to re-develop and refine your furniture design. Evaluate the structural principle of the chair, the strength joinery of the stretchers, frame and knock-down components. Review in which areas you can improve the detailing and material choices you have made. How many components are a feasible amount for assembly? What material choices, surface finish and feel builds the character of your piece of furniture.

Design the assembly / disassembly concept with instructions and optimal packaging.

1:1 scale functional prototypes will be produced at the school workshops. For the production of prototypes CAD/CAM data will be used to product the parts directly from your drawings.

Materials and processes
To be discussed over the course.

Timetable

Tue 27/10 10:15	Introduction to the course + lecture Martin Relander	Remote teaching
Thu 29/10 09:15	Lecture Ville Kokkonen. Present first ideas	Remote teaching
Tue 03/11 09:15	Tutoring MR + VK	Remote teaching
Thu 05/10 09:15	Tutoring MR + VK	Remote teaching
TBC	Introduction to automated knife cutter Janne Ojala	TBC
Tue 10/11 09:15	small group tutoring MR	On-site VÄRE
Thu 12/11 09:15	Lecture VK	Remote teaching
Tue 17/11 09:15	small group tutoring MR + VK	On-site VÄRE /Remote teaching
Thu 19/11 09:15	MID TERM REVIEW	On-site VÄRE
Tue 24/11 09:15	Individual tutoring VK	On-site VÄRE
Thu 26/11 09:15	Individual tutoring MR	On-site VÄRE
Tue 01/12	Workshops reserved 2.-4.12 for this course	On-site VÄRE
Thu 03/12	Workshops reserved 2.-4.12 for this course	On-site VÄRE
Tue 08/12	Prototyping	On-site VÄRE
Thu 10/12	FINAL PRESENTATION	On-site VÄRE

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