



a custom fitted chair for the modern home workspace combining manual processes with robotic 3D printing



Chances are that you, the reader, have been working from home during this pandemic. Working from home has been more common than ever before and is predicted to stay. However, chairs have not adapted yet: office chairs are complicated and bulky products. They are designed to be adjustable to multiple users, but are not the best solution for working in a nicely styled living room. This project aims to develop a stylish chair that fits the home working environment while offering a personal, comfortable fit.

This design process is driven by the opportunities and limitations of digital manufacturing. The benefits of 3D printing seem promising, but can be time consuming and costly. This project focuses on realistically applying the manufacturing

techniques for this scenario and for the start-up client. During an extensive ideation process, it was explored how to manufacture the seat by printing, how to add comfort, how to make it sturdy, stylish, and most importantly: how to do this in a manner that can be adjusted to the dimensions of the user.

This resulted in Coopi, a chair design that combines the strengths of robotic 3D printing with the benefits of a manual upholstery process. This, to avoid long and expensive printing times. Coopi is designed to showcase a bold, open and trendy character that fits in modern home workspaces while visually communicating the combination of manufacturing processes.



Lean van den Dikkenberg

Coopi: a custom fitted chair for the modern home workspace combining manual processes with robotic 3D printing

02-09-2022

Integrated Product Design

Committee

Company

Erik Tempelman

Eliza Noordhoek

Zon&Hoofd

 TU Delft