



**(c)heir**

**Design  
Documentation**

**Nagy Tamás Máté**  
Product design  
2023

DesignWanted  
Award

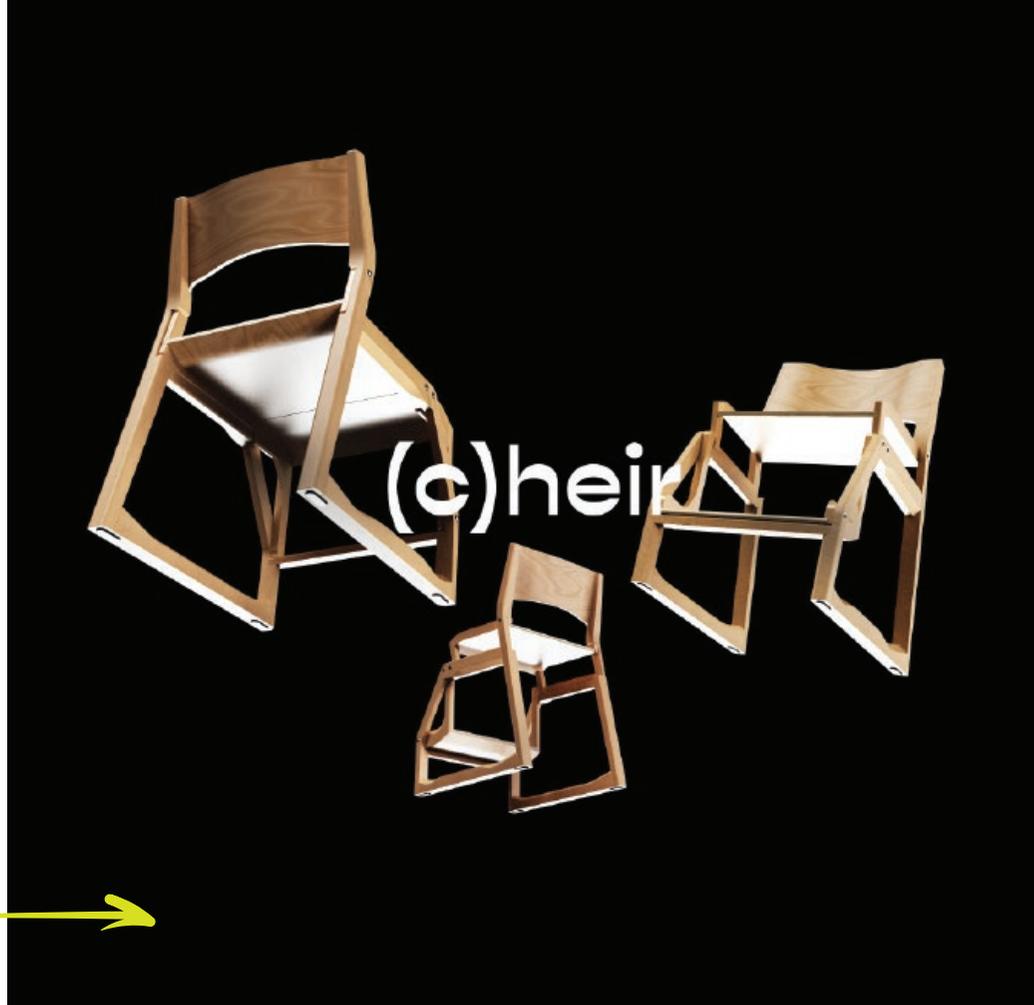
## Concept

A piece of adaptable dining furniture making the seat height apt for children and adults as well, lengthening the lifetime of the traditional high chair.

## Prelude

The concept started in 2020 as a thesis project for my BA studies, which finalized in a rough 3d model prototype and some renders which can be seen here.

The idea was later continued during my Master's, with some new aspects and newfound enthusiasm.



## Development aspects

For its further development I focused on 3 main aspects, the transformation itself, the reduction and simplification of the structure and making the manufacturing process more straight forward.



previous version:



1. transformation

2. structure

3. manufacturing

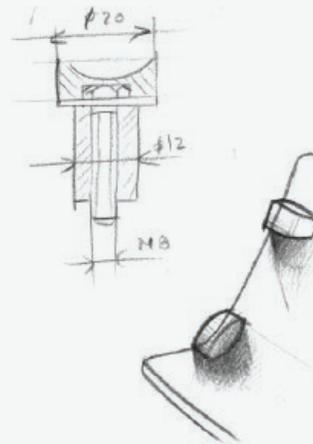
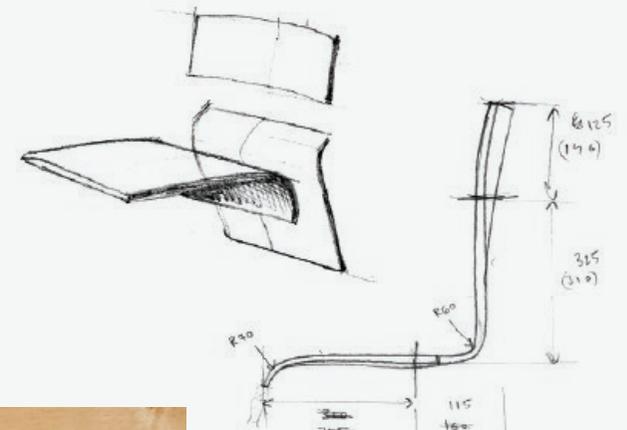
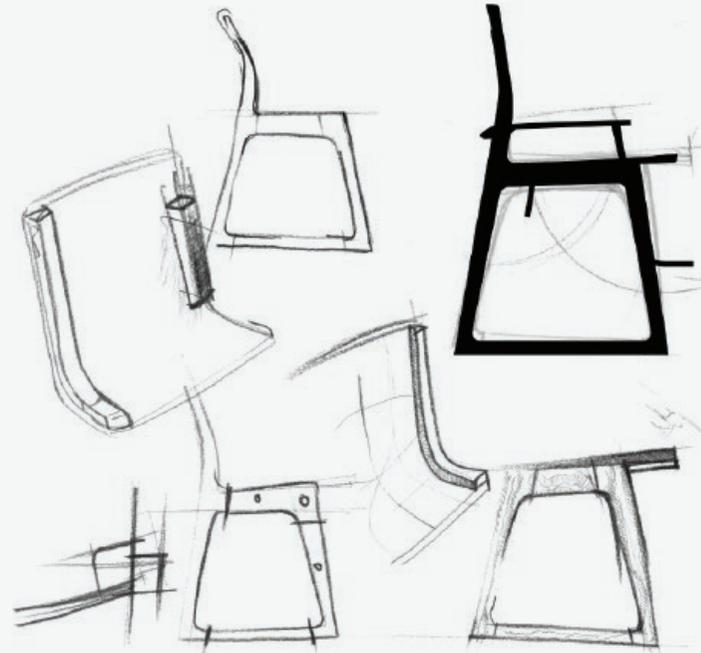
## Development phase

1. The seats are held in place by hinges, which make the transformation possible. The flipping motion is beneficial, because it eliminates the need for the seats to be taken out of the chair.

I 3d printed special bolt heads, to make their tightening possible even with a coin.

2. The structure of the chair is much simpler, due to the flipping mechanism. I also kept the edges of the plywood seats inside the chair silhouette which reduced unnecessary lines.

3. I opted for pre-molded plywood seat shells to cut on time and cost. The plywood seats are cut out from a single shell, thus minimizing the waste accumulated during manufacturing.

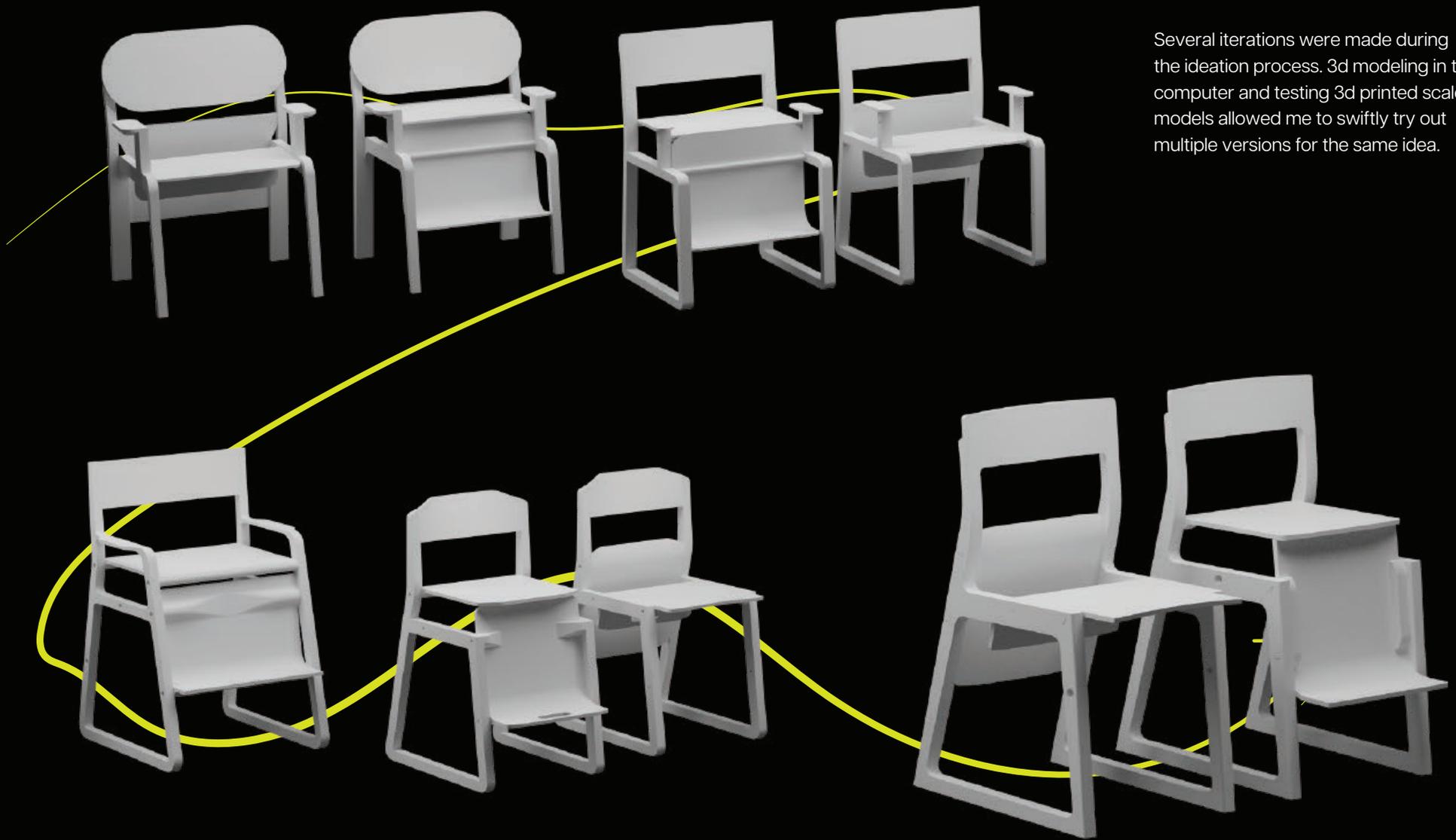


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## Iterations

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Several iterations were made during the ideation process. 3d modeling in the computer and testing 3d printed scale models allowed me to swiftly try out multiple versions for the same idea.

The prototype has a lower seat height for adults (45 cm) and a higher seat height for children (53,5 cm).

The alteration is done by loosening the bolts with a coin and flipping the seats over, making the seating height and depth better suited for children.

A footrest also helps little ones in getting up and down from the chair on their own.

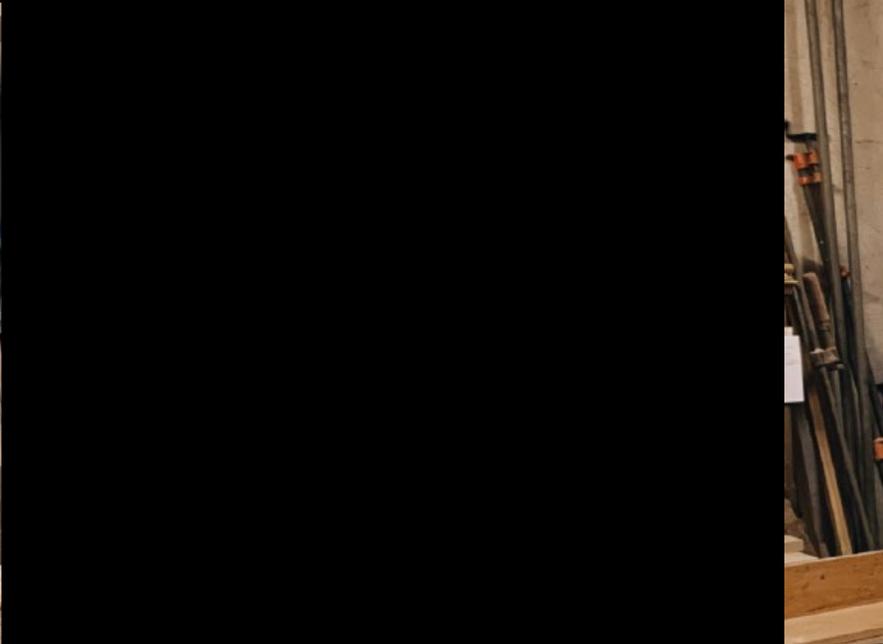


# Prototype





I contacted a local carpenter who helped in making the prototype.

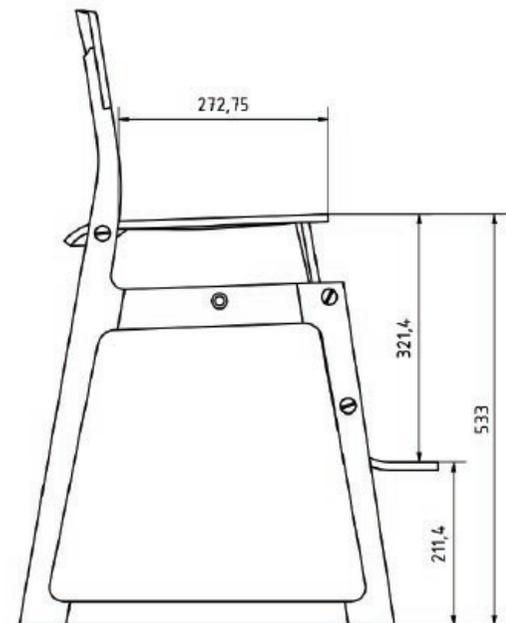
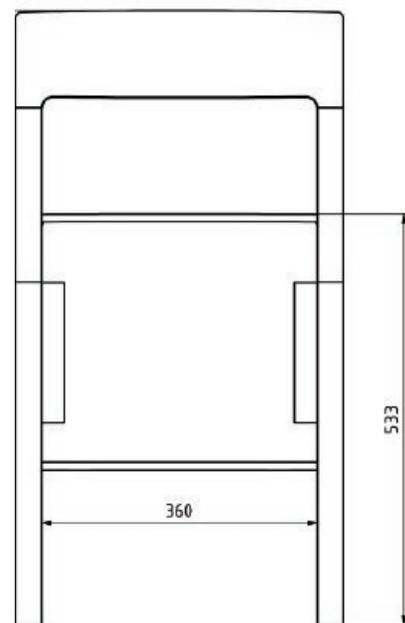
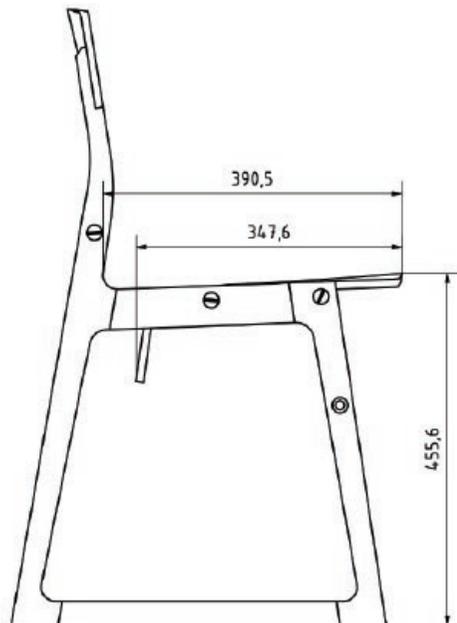
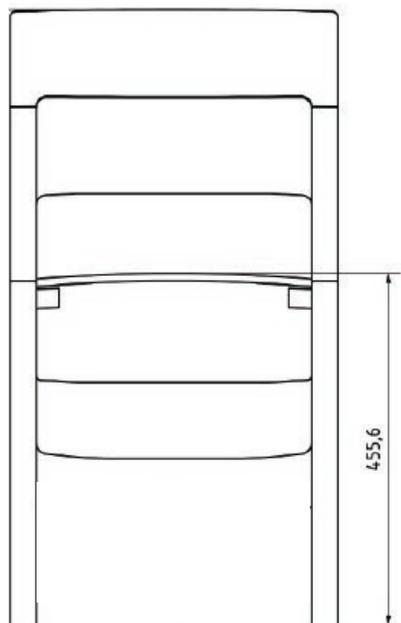












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