

HUG+



## PRODUCT REPORT

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# TITLE SHEET

Master thesis in Industrial Design  
Architecture, Design & Mediatechnology  
Aalborg University

Project report title:  
Development of modern school furniture for group work  
Product title: HUG+  
Project period: 3rd of Feb. - 28th of May 2014

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Kaare Eriksen

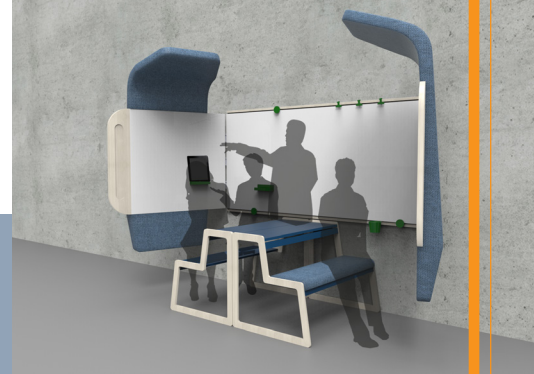
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# HUG+

HUG+ is a wall-mounted furniture for the common areas in schools. The furniture creates an environment that gives cover to the pupils, so they can better concentrate, feel safe and sit in a cosy environment. The arms can be angled as wanted, to create the right environment.

B+ is a bench special designed for HUG+. It provides a small staircase, which support seating in multiple positions.

HUG+ is developed for group work but is also suitable for other types of work. It provides big work surfaces for shared work and support different positioning of the pupils.

The big work surfaces are on the arms whiteboards, while they on the back elements on the wall have different surfaces. Here shown with two soft acoustic elements and one whiteboard in the middle.

“HUG+ gives the opportunity of creating an environment, whether it is open or closed. It covers for the visual noise in the common areas and supports different types of teams”  
- Heidi Jensen, Højer Møbler





# THE DANISH SCHOOL IS CHANGING

The Danish elementary school is constantly under development. The upcoming school reform is going to affect schools to achieve a better learning environment for the teachers and pupils. Group work is becoming a larger part of the teaching and the pupils need to learn how to work in groups, to share work and participate equally. The tendencies in the school are influenced by technology integration in the teaching, which create new learning environments.

Pictures from observations on schools





## School reform

- Varying, different and practical teaching methods
- Ground value of the school design is to foster solidarity between the pupils
- Focus on the well-being, calmness, order and educational environment
- Longer and varying school day

## Factors that come into play regarding the development of school

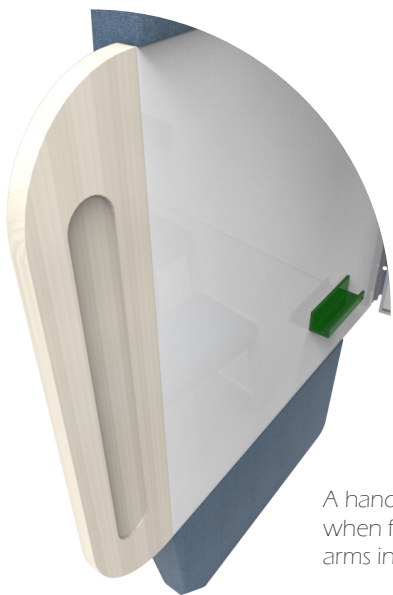
- Group work becomes a bigger part of the teaching
- The varying teaching will encourage the use of common areas
- Use of technology in schools increases due to the availability



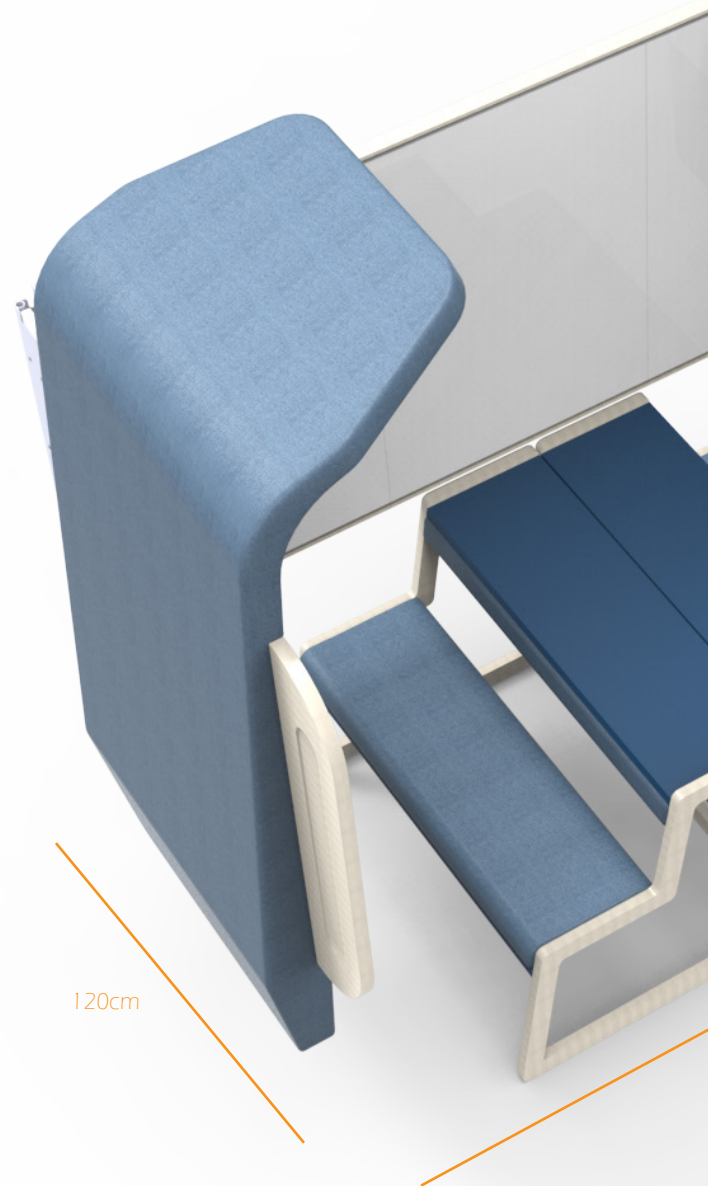
# IT'S IN THE DETAIL

HUG+ has many details that makes it a holistic solution fitting many types of use and different types of schools

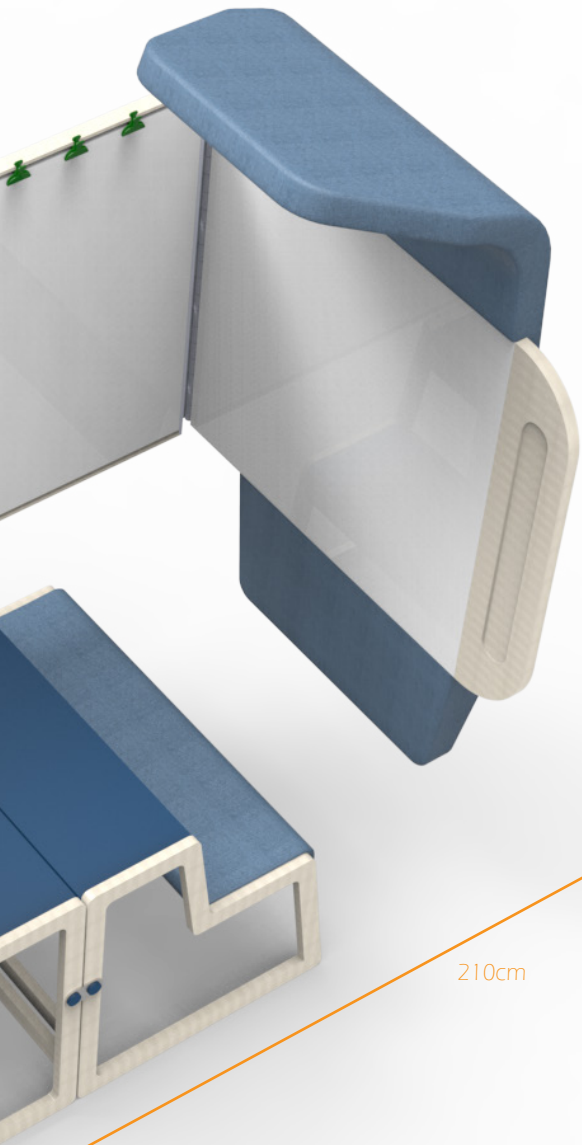
Accessories for the top and bottom rack  
Tablet holder, Poster-clip,  
Pen-cup and hook



A handle for when flipping arms in and out.



120cm



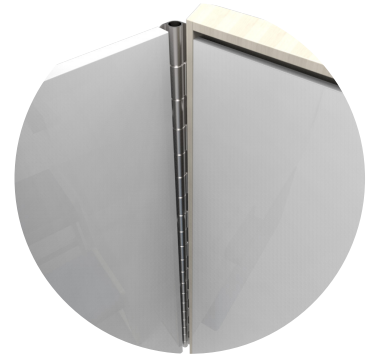
230cm

210cm

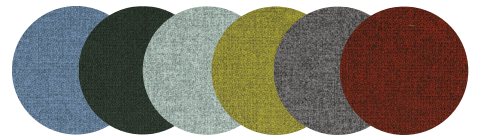
Choose either soft acoustic back plates or whiteboards  
Each back element:  
100x70cm



Long body hinge, so no fingers get caught



Multiple color options  
- All fire retardant  
- Eco-friendly  
- Easy to clean  
- Polyester

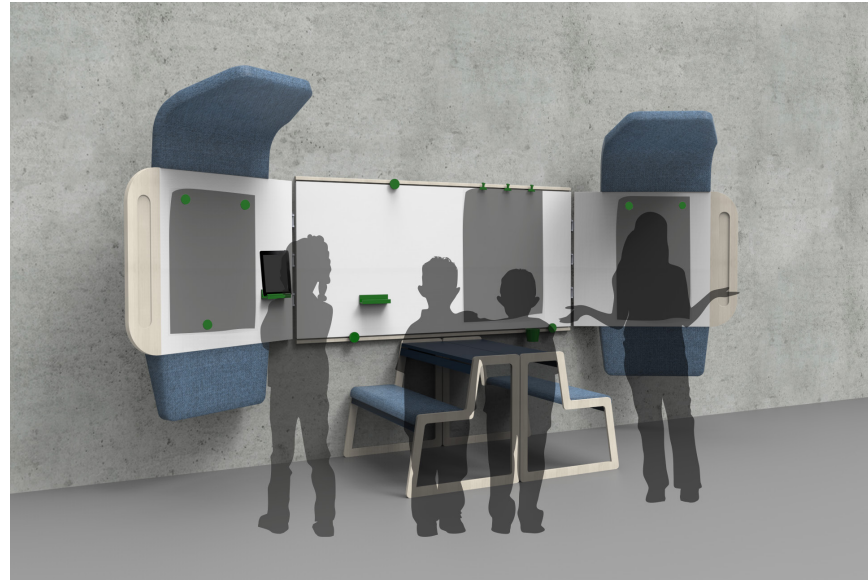




# HUG+ IN USE

Create your own environment:  
The hug can either be open, closed or  
in the middle - supporting many kinds of  
learning situations.

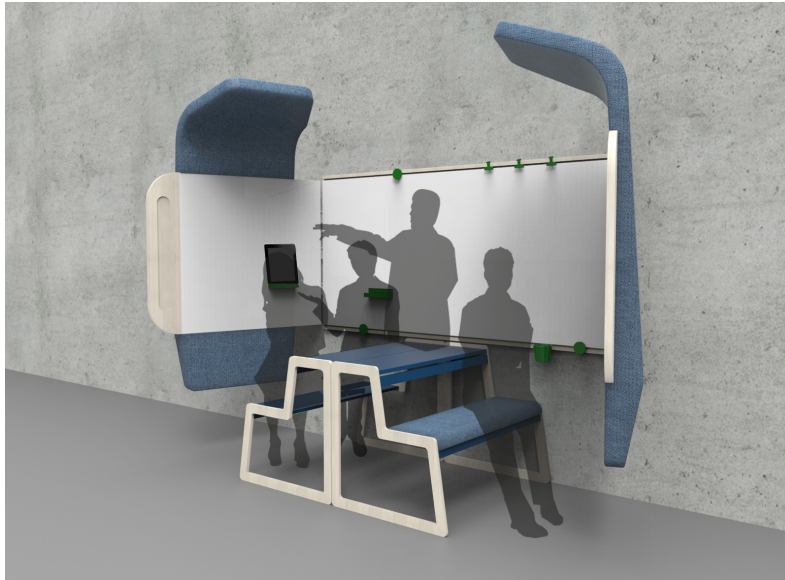
Time for presenting



Sandra, pupil, 12  
"Then we can make girly  
cave which will be a boy  
free zone"

Time for immersion in  
closed surroundings





Time for group work  
in different positions  
sharing the common  
surfaces



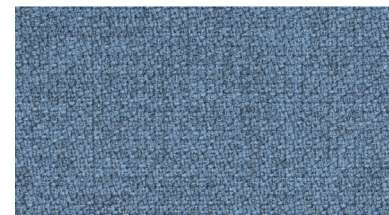
Heidi Jensen – Højer  
“The furniture accommodate  
many levels of immersion”

“I like how the pupils can work  
in different type of teams”

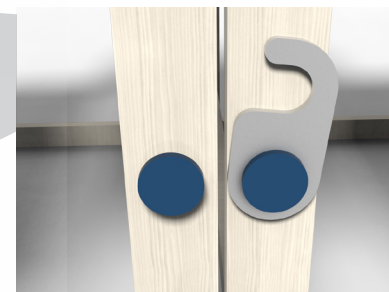
Use the accessories  
for even more use



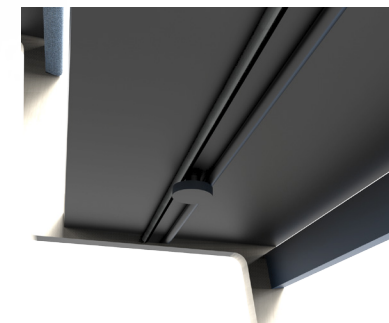
B+ the innovative bench that invites you to sit in any position as wanted. The many sitting positions give the ability to sit at the bench for a long time without getting tired of the bench. The combination of soft and hard materials makes it a combination of a cosy and serious work seat. The individual module can be placed in any position, which makes the bench flexible according to the work positions inside HUG+. By placing two bench modules together the main base is created where the group can work at the common table surface. The hooks on the sides help keeping the modules mounted together, so the pupils can climb on the modules. The cosy set is available in the same colours fitting the HUG+.



Step Melange – the practical textile  
The textile gives the bench a cosy look.  
It comes in matching colors to HUG+



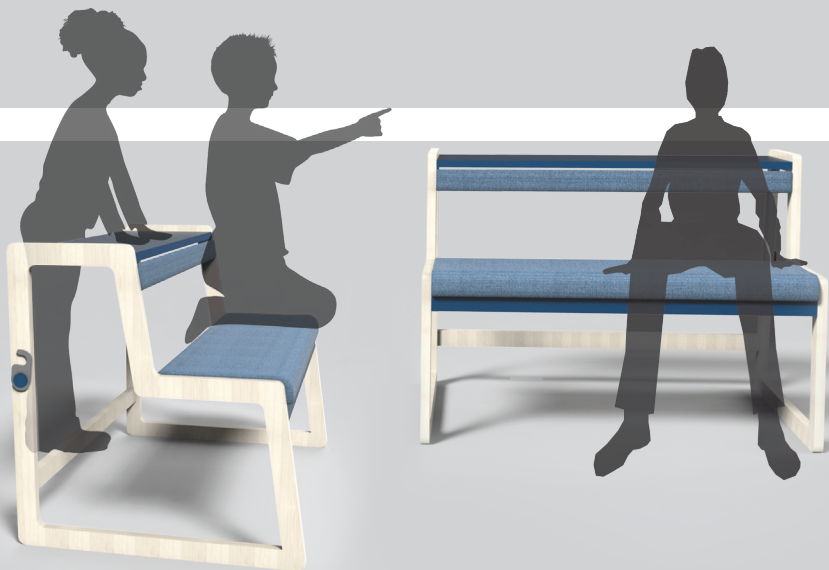
The metal hook for mounting the bench modules together.



B+ has the option of having a upholstered seat or a wooden one. The seat is easily changed by being mounted to a frame- two metal bars holding the seat. View from below.



THE PUPILS CAN PLACE THEMSELVES AS THEY WANT



Anna, Student teacher, 24  
"woow that's a smart bench, you can sit  
in so many different positions and the  
back rest is really clever"

THE BENCHES CAN BE POSITIONED TO YOUR NEED



# USE OF EXISTING FURNITURE

There is no reason to throw out furniture when you can reuse them in combination with new furniture. HUG+ provides this offer. HUG+ can easily be mounted on the wall above the existing bench and create the wanted group atmosphere. An additional mounting part for the existing bench is needed, to keep the function of the flip-table.

Thomas Hansen, German teacher, 31  
"That's really smart and you can decide the levels of privacy"



All kind of furniture can be used in combination with HUG+



HUG+ works good with open bright hallways



There is space for HUG+ at smaller hallways too

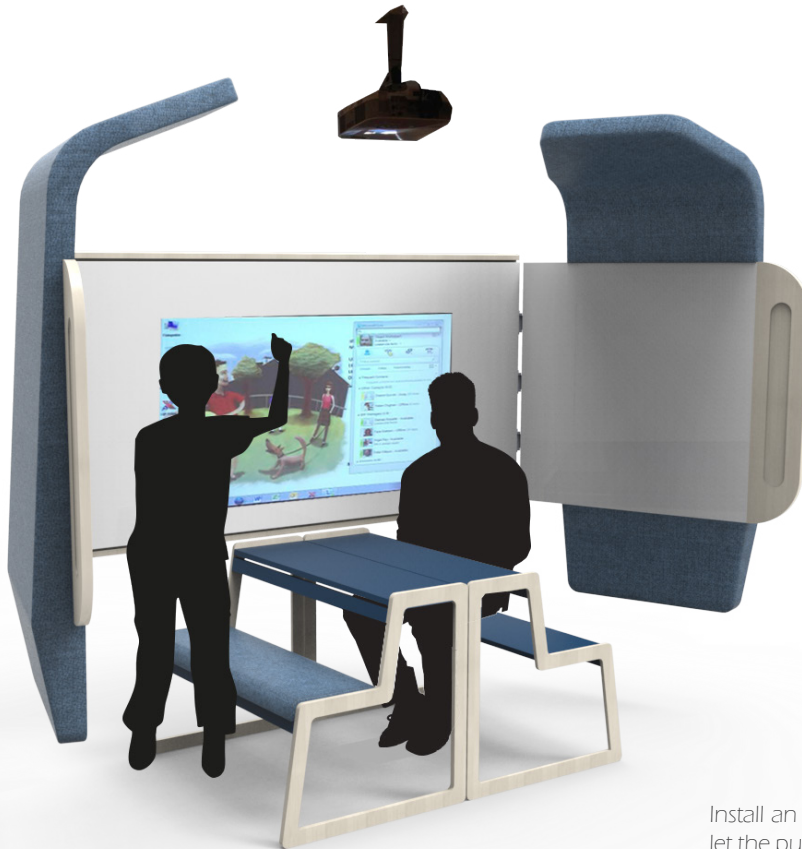




HUG+  
MAKES IT FUN  
TO DO GROUP  
WORK

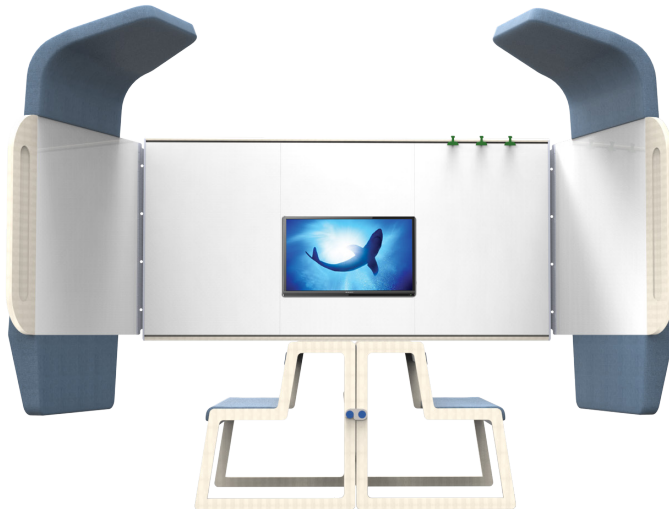
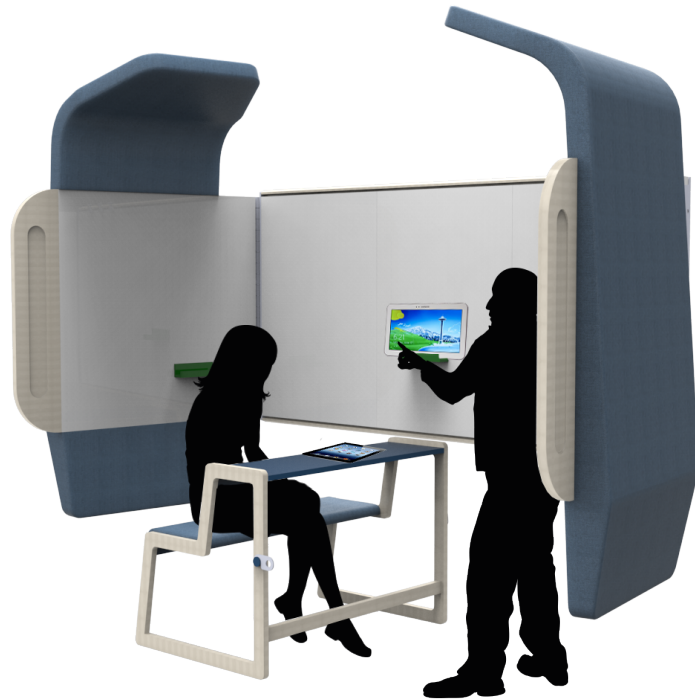
# A SOLUTION WITH A FUTURE ASPECT

HUG+ is a solution that can be used with many kinds of technology products - this secures a solutions fitting the next many years



Install an interactive projector and let the pupils use it as big common shared surface

Use your tablets so everyone can see. Just put it in the magnetic tablet holder, that you have placed on the magnetic whiteboard. The mount fits all sizes of tablets

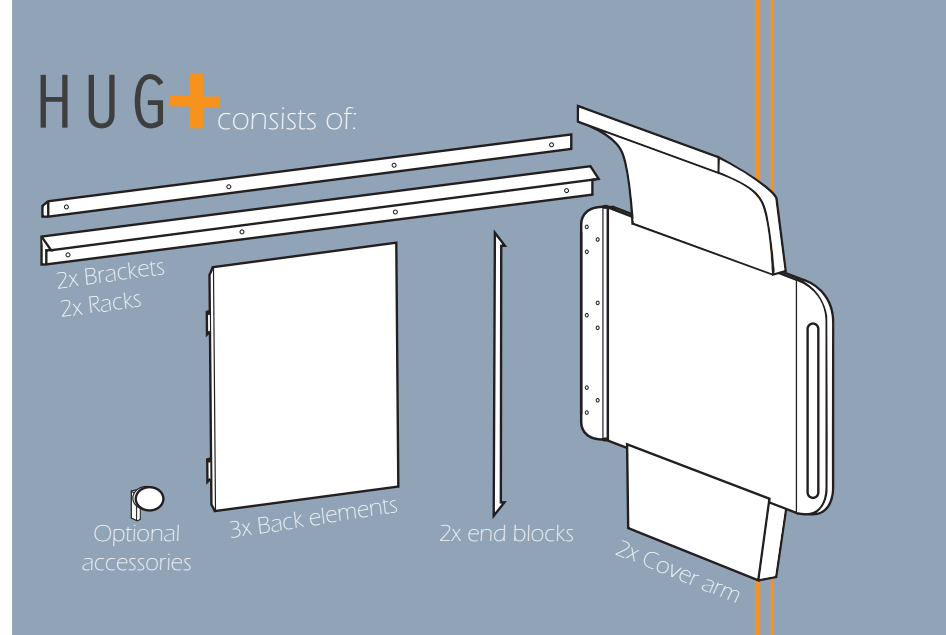


Install a 30" screen in one of the back modules and use it for information and let pupils connect to it and use it when setting up presentations.

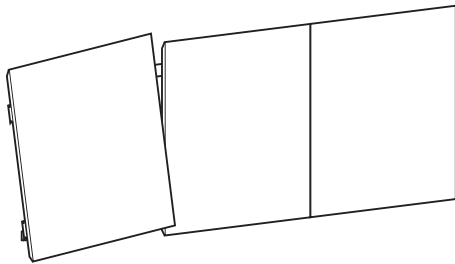
# MOUNTING MANUAL

It is important for schools to have reliable, strong furniture, which withstands the daily use of pupils. HUG+ is designed with a smooth surface with hidden screws which also prevent disassembling.

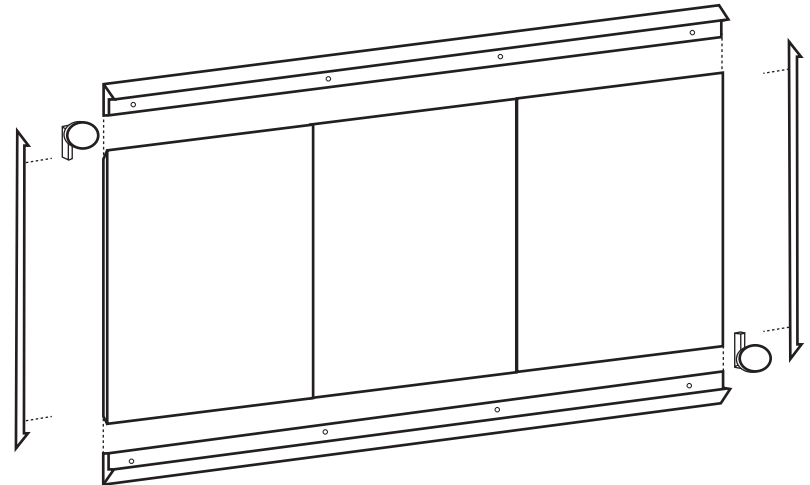
With 5 simple steps the HUG+ can be installed.



1 | Mount the bracket in level. Both in top and bottom.

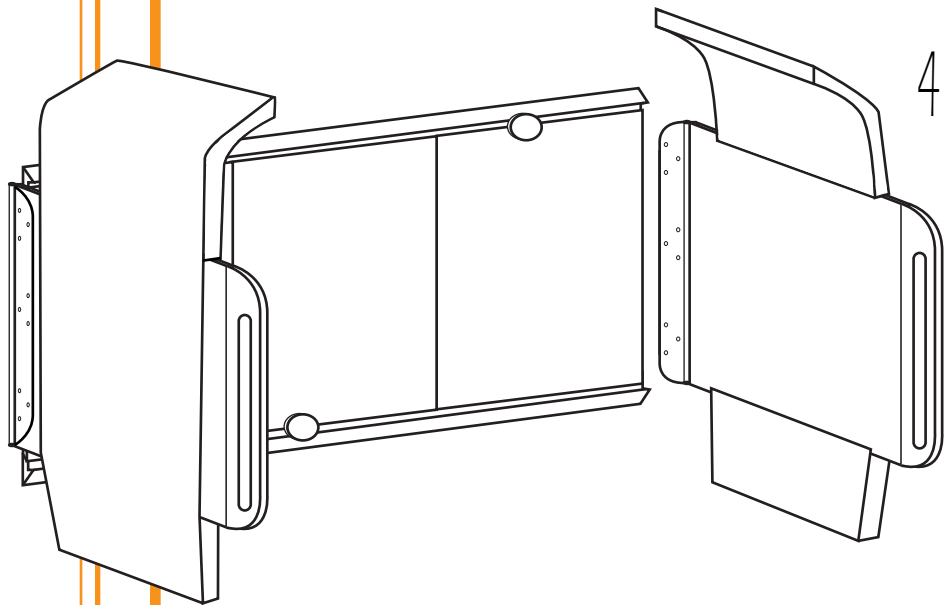


2 | Mount the back elements by a sliding movement from the top and down. The mounting brackets will grab each other and keep the back elements in place.



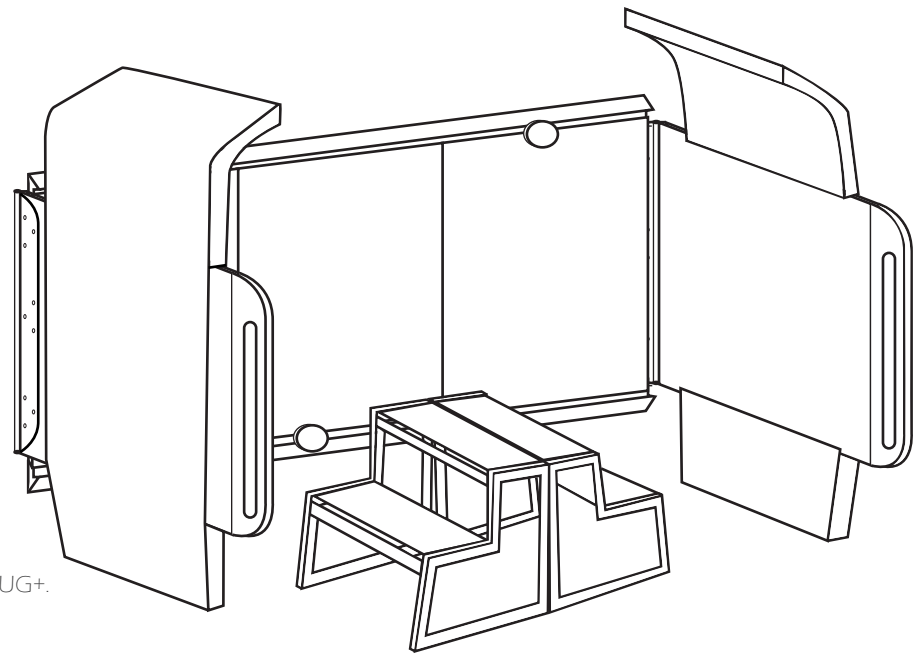
3 | Racks are mounted both in top and bottom for locking the movement of the back elements. Option for adding accessories in the gap between rack and back elements. Closing the ends with a block, so the accessories stays in place.





4

The cover arm is mounted with the hinge on the wall.



5

Place the wanted furniture in the HUG+.

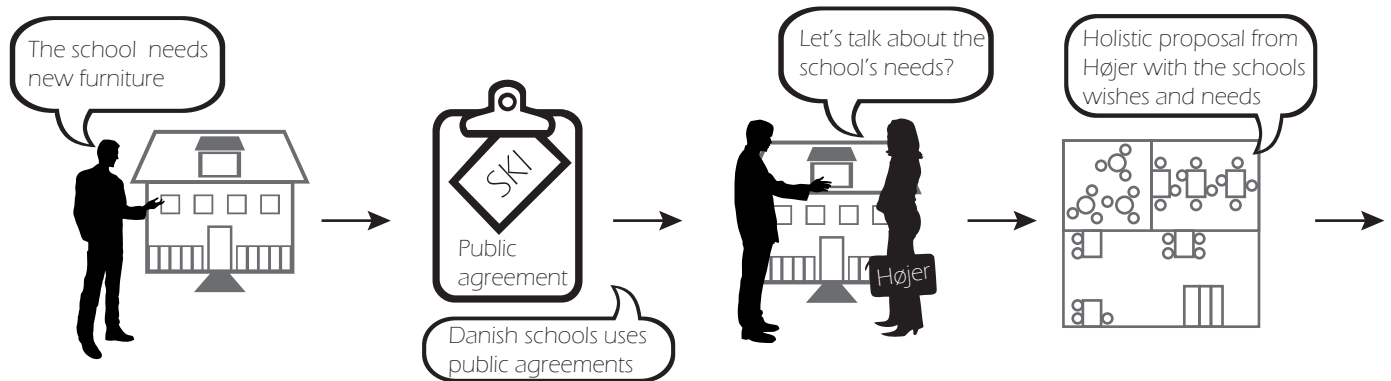
# BUSINESS

## Purchase chain (In Denmark)

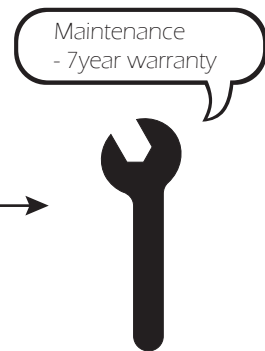
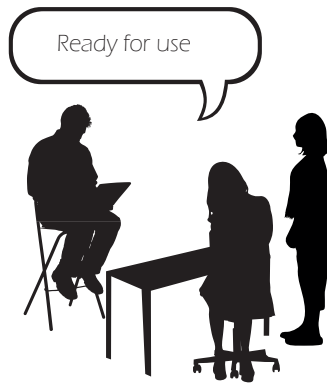
Showing how the steps from when a school realises a need for new furniture until the furniture is delivered and installed.

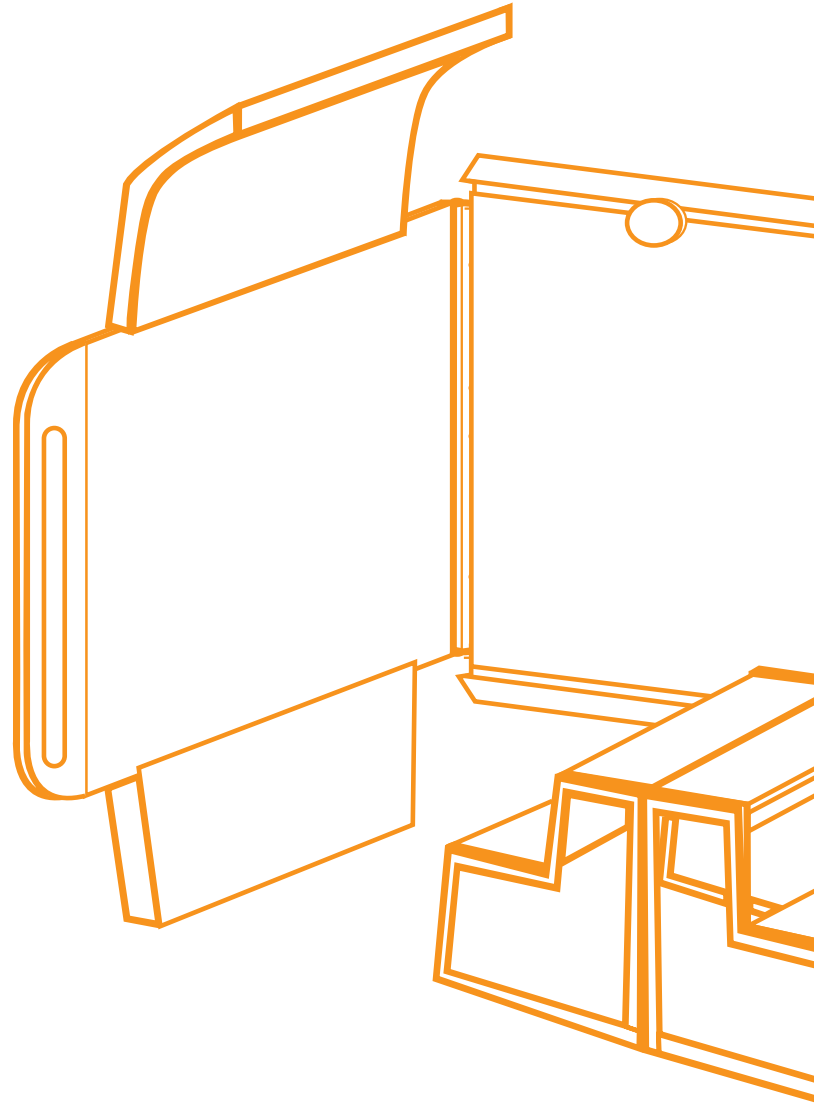
The chain shows a big need for being a part of a public procurement to get access to sell furniture for schools in Denmark. Højer's procedure is to sell "room designs" and to realise the customer need to help

them to the best solution through a close collaboration between the school and Højer Møbler.









# PRICING

According to the Danish Ministry of Education, there is 2118 public schools, private schools and boarding schools (efterskoler) in 2013 in Denmark.

Højer Møbler has stated to sell app. to 500 different customers during the past three years. This includes both schools and other customers.

Højer estimates that a minimum of items sold: 150 pieces before a product like HUG+ will be produced.  
(Heidi Jensen, Højer Møbler)

Højer Møbler has entered a public agreement with National Procurement (SKI). The agreement has ensured Højer Møbler as primary provider for the municipalities wanting to enter the agreement. The municipalities include: Copenhagen, Aarhus and Odense municipality (110 Schools) among others.

Højer Møbler is focusing on expanding the market to Germany, Sweden and France. This is seen through entering fairs and establishment of Swedish distribution (Heidi Jensen, Højer)

It is estimated that Højer has a potential market of 1/5 of the schools in Denmark:  
400 Schools and that Højer by expanding the market to other European countries will have a potential market of 100 schools.  
Total estimation of 500 potential school.

The number of potential buyers is estimated to be 1/4 of the total potential market: 125 school. Each estimated to buy two HUG+ : 250pieces in total.

This rough estimation indicates that HUG+ can be sold above the minimum number set by Højer Møbler.

## Pricing

The target price is estimated to  
25.000 to max.30.000 DKK.

The price estimated according to other of Højer Møbler's furniture

Target Cost price:

Højer Møbler needs to earn a minimum profit of 50% of the sales price.

Giving a maximum cost price:

12.000 to 15.000 DKK

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