



Product report / MA4-ID7
Industrial Design/AAU



Synopsis

This project has revolved around designing a playing equipment for the playground in day care centres. The product has been designed with the economy of the day care centres and the important step in a child's development, in mind. It has been a goal in the development of the product to come up with a financial model that ensures a free product for the day care centres. This is to accommodate the low budget they have available for purchasing new equipment. The outcome of the project is the product *Tilt*, which has multiple usages, but serves as a seesaw in its primary function. The product can support the children's practice and improvement of balance, motion and social competences.



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Foreword

This folder presents the result of a master thesis project with specialisation in Industrial Design from Architecture and Design, Aalborg University.

The product that is presented in the folder is a mobile playing equipment, which is developed on the basis of research and analysis gained from observing the context of Danish day care centres and children in 3-6 years of age. The local day care centre, Børnehuset Egholm Færgevej, has served as the main basis for the research.

This folder is directed to potential sponsors of the product, which is proposed to be small companies in the local community of the day care centre.

The folder is supplemented by a process report, explaining the process of designing the product, *Tilt*.

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You can make a difference!

Introduction

Tilt is a product for children in the age of 3-6years, which supports their learning process during their time in the day care centre. *Tilt* is a seesaw in its primary form, but if tilted it can be transformed into a playing equipment for climbing, or a setting for walking the robe and testing balance. The usage situations of *Tilt* are many, and it is up to the children to come up with new ways of using the product.

The economy of the Danish day care centres is poor, and their budget for buying new playground equipment is low. As a result of this, they often have to rely on the goodwill from the children's families. That is why we propose this solution, setting up a symbiosis between day care centres and companies in their local communities.

WE NEED YOUR HELP

Sponsoring one or more *Tilt*-products to a local day care centre of your choice, will not only be a good cause and put smiles on the faces of the children - it will also ensure your company a good reputation in the local community! And when all comes to all, this will reflect positively on your business.

Play equals learning

Playing is an important part of the learning process for children in the age of 3-6years, because it helps them practice both their motor skills and social competences.

Day care children play all sorts of games; from role play to games of construction, where they practice their understanding of shapes and sense of dimension - and it is actually through play that the children learn the important lessons they can use in their future life.

Children in the age of 3-6years still need to develop their rough and fine motor skills, and to improve these they constantly need to be challenged. Playing equipment for the playground needs to support testing of the children's physical boundaries, and this is one of the key objectives of *Tilt*.

Through interaction with other children, the children not only improve their vocabulary, but also learn how to act towards other human beings. Therefore, *Tilt* is a product that encourages more children to play together. Several products can be connected, making it possible to expand the game, if more children want to take part in playing with *Tilt*.

PLAYING WITH TILT WILL IMPROVE THE CHILDREN'S...

...Motor skills

...Social skills

...Language & vocabulary

...Understanding of form

...Constructional understanding

...And much more.



Learning by doing!

Primary function



Simple product, multiple usage

Tilt is a simple product in both shape and function, but can be included in a great number of games. It is only the children's imagination that limits the possibilities.

PRIMARY USAGE

Tilt's primary function is as a seesaw, on which the children can practice their sense of gravity and balance. Tilt also stimulates the child's vestibular neuritis and proprioception, which have to do with balance and muscle-tension. Two things that are very important for children in the age of 3-6 years.

The children can also interact with each other during play, and negotiate about the boundaries of the game. Is it for example a team effort to set the product in motion.

If more children want to participate in the game, two or more products can be linked together with milk boxes.

SECONDARY USAGE

In the products secondary function, the product is placed upside down, making it possible for the children to climb on top of it, or play underneath it.

This is a perfect setting for role-play, and for the children to use their imagination to come up with ideas of what the product should be. Is it for example a bridge, a cave or maybe a castle?

When climbing the product, the children can practice their coordination of arms and legs, and by repeating the same movements over and over, they improve their ability to get up and down from the product, and at the same time they practise their coordination skills.

TERTIARY USAGE

The tertiary function of *Tilt* is when it is placed on one of the sides, making it possible for the children to walk the robe, and again practicing their balance and vestibular neuritis.

When placed on the side, the product also defines a space inside the arc, which can be used for playing. Two products facing each other can outline a room, easily imagined into a car or a house, when for example, playing family.

A MODULE FOR BUILDING CONSTRUCTIONS

In all of the products usage situations, the green milk box can be included. The milk box is already present on the playground in day care centres around Denmark, and the dimensions of *Tilt* is, as a result of this, adjusted to fit the box. For example, is the width of the product equal to the length of the milk boxes, and the height between the ground and the products handles, when the product is placed upside down, is consistent to the height of a milk box.

This makes it possible for the children to use the product when building constructions with the milk boxes.

Secondary function



Tertiary function



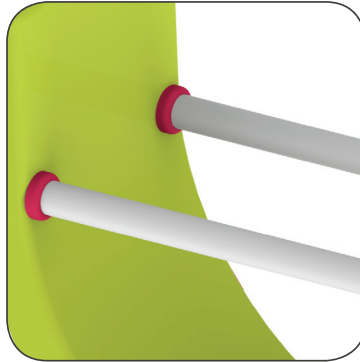
Details



BREAKS

The two triangles on the outer arc of the product serves a purpose as breaks when the product is used as a seesaw. This is to control the movement of the product.

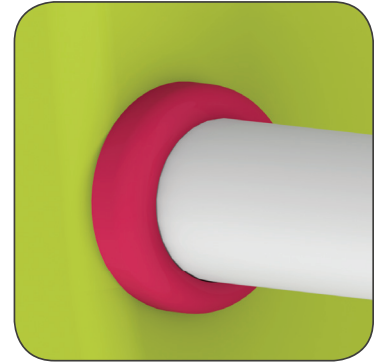
The triangles are also used in the products secondary function, where they serve as a help for the youngest children to climb the product.



HANDLES

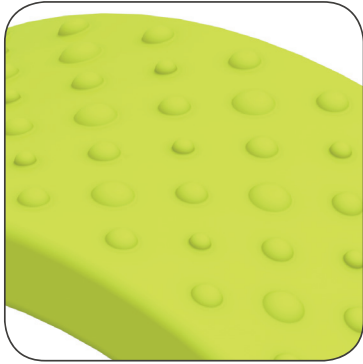
The handles of the product are round, to ensure that the children can get a grip of the handle from all sides.

The round profile also secures that there are no sharp edges, which the children can come into contact with.



MOUNTING OF HANDLES

The mounting of the handles, make sure that the handles stay in place, but also serve as a guard for the screws, so that the children cannot come in contact with these.



NON-SLIP SURFACE

On the outer arc of the product there are a number of dots in different sizes, which functions as a non-slip surface when the children sit or stand on top of the product, in its secondary function.

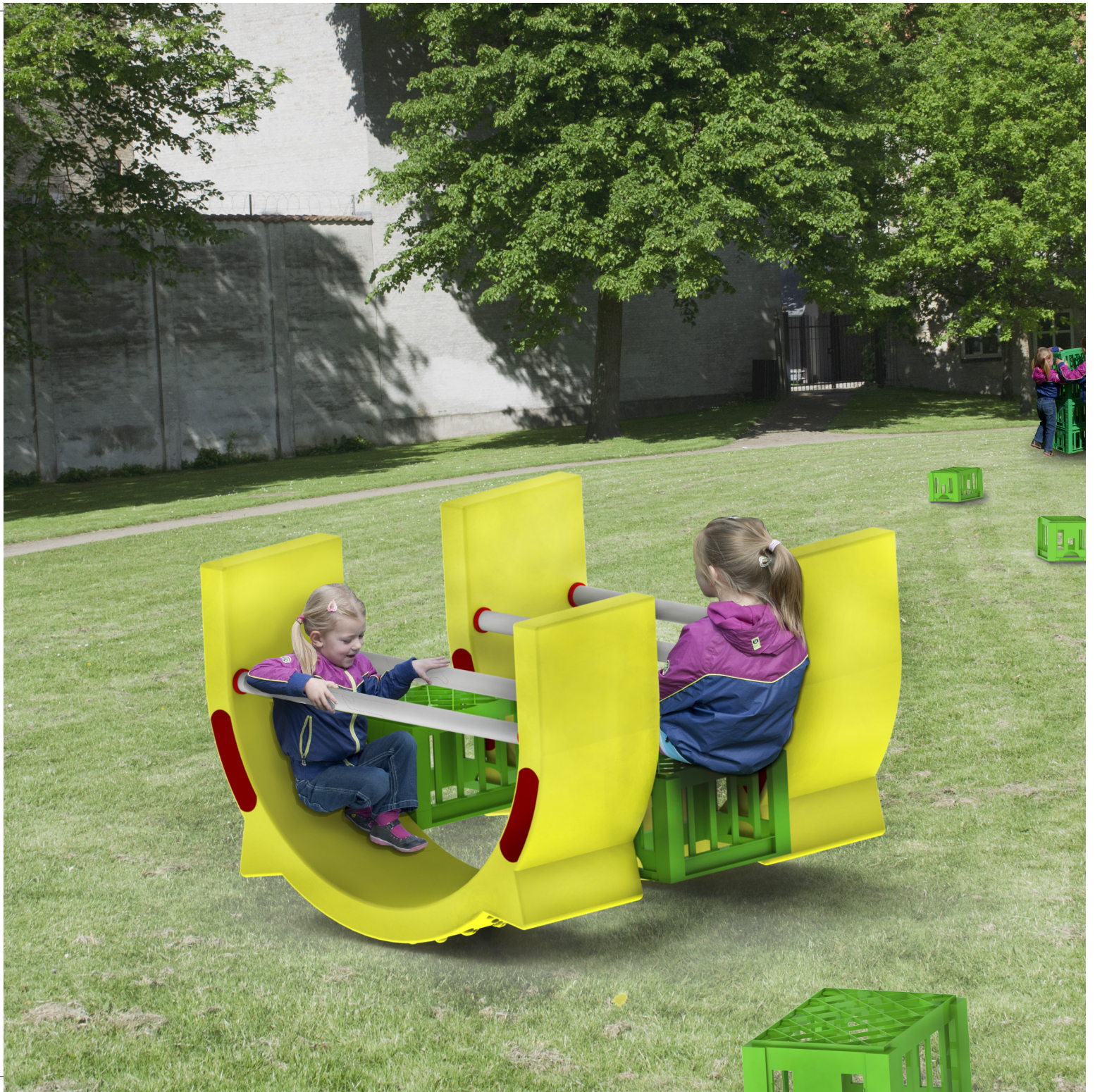
The dots also protect the outer surface against wear, so the whole surface does not get an overall worn appearance.



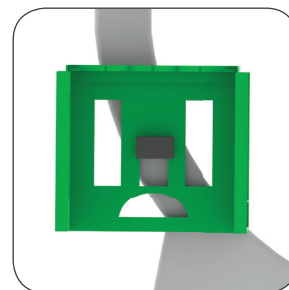
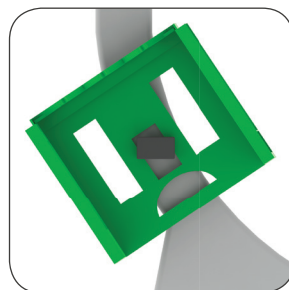
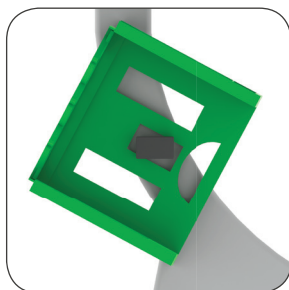
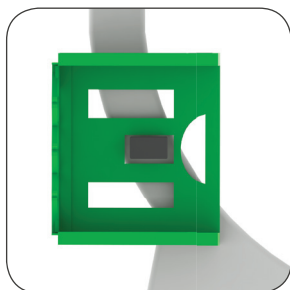
RUBBER PIN & SURFACE

The rubber pins main function are to connect two products together using a milk box.

Around the pin a rubber surface is placed, which ensures that the children does not get their fingers hurt if these get stuck in between the product and a milk box.

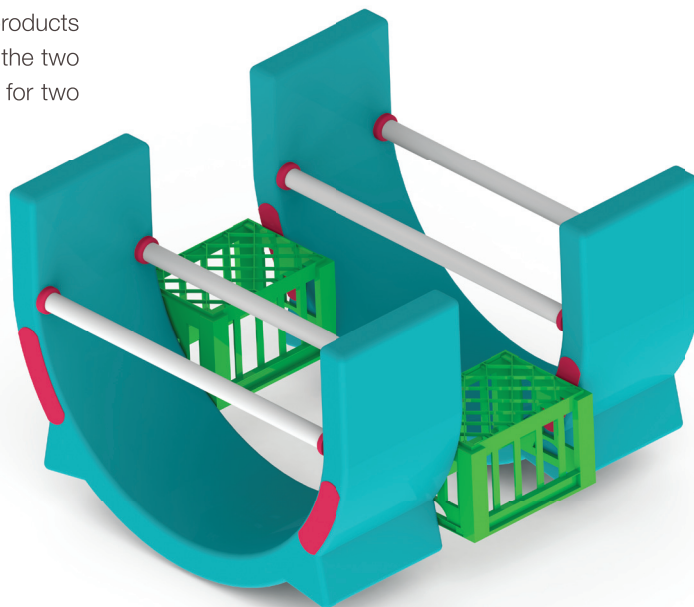


Interconnected



Tilt does not only function alone, but more products can be linked together with the use of the green milk box. This ensures, that more children will be able to expand the playing equipment area, making room for all the children who want to participate in the game.

The children, can place the milk box around the pin on the side of the product, twist it, and thereby lock the to products together. When doing this, the milk boxes between the two products can function as extra seats, making room for two more children.





Imaginations sets the limit



Materials



PEHD

High density polyethylene is used for both the arc and the mounting for the handles. The material is UV-stabilised in both raw material and colour, which gives five years guarantee against fading.

The material is non-toxic and approved according to standards. The material needs no maintenance, and is resistant against impact from wind and weather. Furthermore, the material is 100% recyclable.



NYLON TUBE

The handles of the product are made from round nylon (PA6) tubes, which ensures, that the children's hands do not freeze to the handles. The handles are also UV-stabilized in both raw material and color, and are resistant to impacts from wind and weather.

Furthermore, the material is maintenance-free, and has strength and stiffness properties that ensure the handle can resist potential loads.



SELF-TAPPING SCREWS

The two handles of the product are mounted with self-tapping screws made from stainless steel. All screws are covered under the plastic mountings of the handles, to ensure that the children cannot come in contact with any sharp edges that the screws could have.

This also protects the handles from unnecessary dismounting in the day care centres.

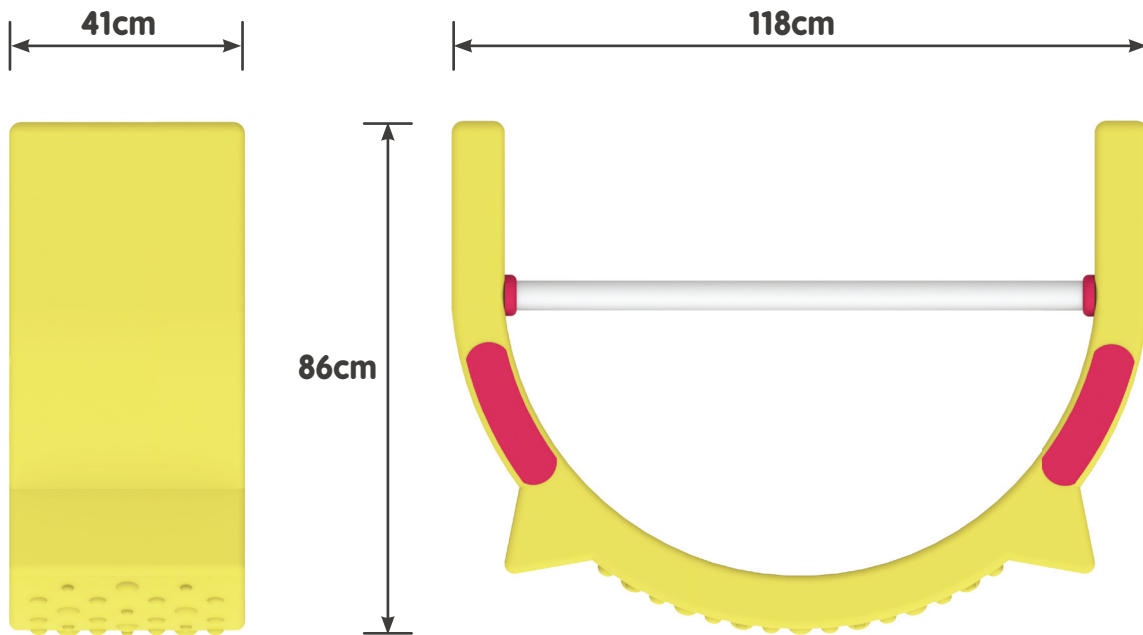


RUBBER

The pin used for connecting two products with milk boxes, is produced in rubber. As explained, rubber is also placed around the pin, to ensure that the children do not hurt their fingers if they get stuck between the product and a milk box.

The rubber has a high wearability and is like all other materials used resistant against impact from wind and weather on the playground.

Dimensions



Price & colour

Tilt has a cost price of only 4749DKK, and it comes in three vibrant colours. Each product has two colours; one colour on the arc, and another on the plastic mounting for the handles. This gives both a simple colour palette, but the contrast between the two gives an overall playful appearance. The handles of the product are always white, which makes a basis contrast to the other two bright colors.

The colours are the same nuances, which ensure that they will complement each other if the day care center already has different colors of *Tilt* on their playground.

Price: 4749,-



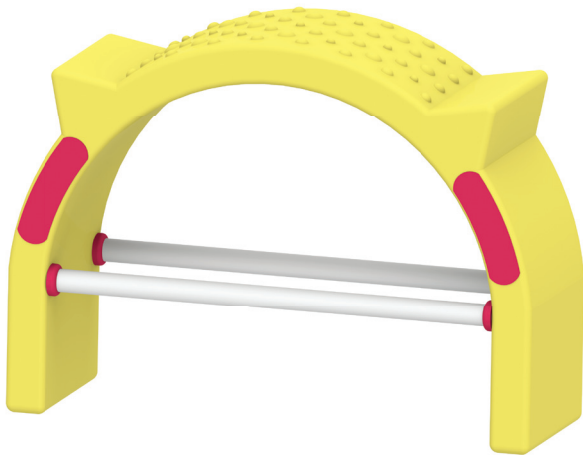
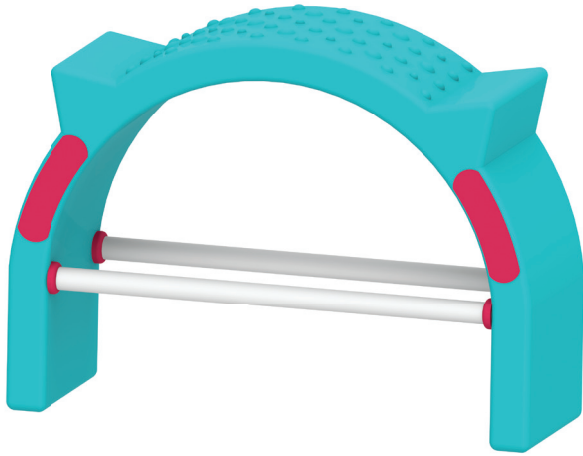
A happy yellow



A fresh green



A cool blue





How to donate

If you want to make a difference and support a day centre in your local community, this is your chance. All you have to do is to contact the Tilt-organisation through the phone number or email at the bottom of this page.

You alone decide which day care centre you want to support, and how many products you want to donate.

For more information click into the website www.tiltinmotion.com, and read more about the situations in the day care centres and how the Tilt playing equipment came into existence.

CONTACT INFORMATION:

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SEE MORE ON WWW.TILTINMOTION.COM



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