From Fusion 360, use the data panel to open the model in A360. Navigate to the actual 3D version of the file online. In the viewer, there is a button in the top right corner where you can share the file. In the Share window that pops up, click on the Embed tab. There are three different sizes to choose from and a text box with the code. Copy the code in the text box after selecting the size.   
Next, you need to open the web page that you want to paste this into. Most online systems (such as WordPress) give you an option to view the page as text. Simple past the code into the text version of the page. It may take a little to figure out where the code should go. But, once you switch back to the normal view of the page, the 3D version from A360 should load.

<https://knowledge.autodesk.com/support/fusion-360/learn-explore/caas/video/youtube/watch-v-xa595rm-uUI.html>

# Vision

I’m drawn to healthcare for not only the reason of helping the people most in need but also because I’m interested in the medical field. Everyone is different and has different needs. There are many disabilities which can result in problems you wouldn’t expect, for example how physical disabilities can limit everyday tasks. Design can help is by adapting everyday products to people with special needs, to make sure they are able to live as independently as possible.

The medical worlds is evolving and there are more and more ways to help people improve their living quality, but sometimes it seems to me that the medical world only sees the broken bodies that need to be fixed but not the human inside the bodies. This results in great working therapies and procedures but which are not always perceived well by patients. In my opinion industrial design can be the bridge between the medical world and the patients. For example when looking at rehabilitation programs. Doctors provide exercises to patients, to improve after a medical procedure or physical problem, but for patients it might be hard to do these exercises correctly independently or to find the motivation. Products can be designed to provide motivation, make rehabilitation more fun or provide tools to make the exercises easier to perform at home.

# Identity

I’m a very goal focused designer. In the case of my main interested healthcare it doesn’t seem possible to be completely user focused while there are many other standpoints, like the medical side and the other stakeholders like healthcare professionals. Although I want to be user focused and truly design for the user I understand that a product needs to be liable.

Goal focused also means that I have a core purpose of the design, other aspects are designed to support this core purpose but do not overshadow it. For example if my core purpose is to help elderly with arthritis therapy at home, I will focus on how to make the design motivating, easy to use and how to make sure the therapy is done as close as possible as it is medically advised. The look of the product will mostly be designed by how it can be easy understood and used, the aesthetics will never overshadow the purpose. Being goals focused also helps me to work strategic and stay on track of the initial focus, I will not easily be distracted from what I plan on doing.

Research is very important to me while I see the necessity of it to make a great liable design. I healthcare you can not only listen to the wishes of the user, you need to know some of the medical thoughts behind it. Also research and benchmarking helps to understand what is already known to avoid making mistakes that have already been made and to know what does work. Doing an extensive research project myself is something I have only done once, but this sparked interested. I might want to move on more toward a being a researcher for design but to understand this better I have to experience more what this would mean.

# Portfolio

## Arthritis glove

Arthritis is an illness which causes inflammation and pain in the joints. It can limit flexibility and make moving painful. A common therapy is hand exercises and wearing gloves, to keep the joint warm.   
  
We worked on implementing lights in already existing gloves to provide feedback and information about the exercises. During the exercises the lights show information about how the movements need to be done. Lights, representing joints, use colors to show if the certain joint needs to be bend or stretched. The lights would also provide notifications to show the user when it has been more than 24, 36 or 48 hours since the last exercises has been done, as a reminder and stimulation to do the exercises frequently.

## Bike helmet

In the Netherlands, the bike is a common transportation method. Young children learn to ride a bike and use it to go to school. Most children do not wear helmets. Helmets are a good way to protect the head, a vulnerable part, especially by children, while they are still developing.

User research showed that children don’t like wearing a helmet because they are not “cool”. For parents, the downside is that they often have to carry the helmet when the child is not wearing it. By making the helmet foldable, we hoped to make the helmet more superhero like and therefore cooler. The helmet can also be hidden easier and the flat helmet is also easier to store. This can be done in a back pocket in the jacket of the child.

For this project we looked at material choices to make a strong and save helmet. With calculations we tried to determine if the helmet could pass the safety standards that are applied on bike helmets.

## But research

This research project was done in collaboration with Adelante, a Dutch health care organization, we worked with the department focused on people who experience seating problems caused by sitting in a wheelchair.   
  
The research was done to look at how contouring of the wheelchair seating can help prevent pressure sores by looking at the distribution of pressure on the buttocks. Contouring wheelchair cushioning is already done to some extent and has proved to be useful. We have researched if a more extreme contour of the seating base can prove to be even more useful. Besides the pressure distribution, also comfort was tested on three levels of contoured seating. This tests together will give an insight in the overall effect of contoured seating on wheelchair users.

To do the tests three seating were made. These consisted of a hard base which was shaped and on top a soft foam. The contoured bases where made using a 3D model which was milled into wood. The models where shaped to resemble the anatomic shape of the buttocks and the upper legs.

The tests where done within subject, meaning that each person tests all three the seating’s, the independent variable. This results in correlated measurements, which enables us to compare the different conditions of the same person over the different bases. This subsequently eliminates individual differences over the different tests.

From the pressure tests we could conclude that increased contouring has a significant positive effect on both the SPI and the area of pressure. These results suggest that increased contouring can decrease high pressure points and therefore decrease the risk of getting pressure sores.

The results from the comfort test shows a significant difference between the contours, the more contoured the more comfortable. The questionnaires where however filled in by able-bodied participants and can therefor the results cannot be generalized. The results for people with paraplegia might be different.

## Autism game

For some children, making social contact is hard. The game MeeTo is inspired on PokemonGo. It is a stand-alone device which lets children collect zoo animals by locking fingerprints with new people. When a new fingerprint is scanned, a new animal will appear in the virtual zoo. This way, children are rewarded for making social contacts. This stimulates the social-emotional development and helps them further in life. While order is important for autistic children it is important to integrate the product into the normal life of the child, this can be done with simple actions like feeding the animals every day.

The design has a fun childish color and can be easily hold by the handle on the top. Rubber parts provide good grip to prevent dropping. The zoo theme was chosen to match the interest of both boys and girls.

## Blender

For this project research needed to be done to a regular blender. The conclusion was that multiple blenders where used, small one portion blenders and big multiple servings blenders. The biggest struggle was cleaning.

We had to come up with a new design to solve some struggles or explore opportunities we found. The new design was a modular blender. Different sized slots provides room to put different sized containers on the base. They can all connect to same rotation part that connects to the motor in the base. This provides the opportunity to use the same base for both a multiple serving container, a single serving container and a bowl. While there are multiple containers available the containers can also be used to store what was blended, when you want to blend something else you can just put a different container on. The double function of the containers and the option to take out the blades reduce cleaning and make cleaning easier.

Other opportunities we looked into where using light to give feedback about the content of the container, before blending it might be hard to estimate how much fruit you need to get a certain amount of cups. Using a weight sensor the amount of cups can be estimated by the device, which is shown to the user using lights.

The last function we looked into was how you control the speed of the blender. For the small blender the standard seemed to be pressing the top, the more force you press with the faster it blends. For bigger blenders the standard seemed to be a slider or a turning knob. By combining the two blenders it might be confusing to users if they cannot use their standard way anymore. Therefor the input should also be combined and both options should be supported.

## Campus game

Being physically active is important for your health, sitting for too long needs to be prevented. At a university many students and employees do sit for hours at the time. With a game we tried to encourage people to stand up, go outside and move for a short time.

The game consist of 8 plates on the ground which need to be pressed in a certain order, representing the code of you faculty. When the code is pressed you conquer the space. The longer you have the space the more points the faculty gets. Competition is used to provide stimulation.

To make the prototype we made our own button like pressure plates which where all connected to an inner plate which controlled everything. Data was also collected about the activities with the device. To get an insight in if it was understandable, did people manage to press correct codes, if it was used and when it was used. Observation from a distance also gave an insight in the interaction with the game.

## Coffee game

The Drink Bomb is a game for student houses that lets you decide who needs to get up and make drinks for the whole house. With the Drink Bomb you can indicate what you want to drink (coffee, tea or water) and see what others want. When the game starts lights appear on one of the boxes. By smashing the button the lights transfer to someone else. After a certain time the lights turn red and can’t be transferred anymore. The person with the red lights need to get drinks.

## Eating pace research

Literature has confirmed that a faster eating pace is linked to an increase of body weight and a higher chance of getting obesity. In order to slow down the eating pace, we examined whether light had an influence on eating pace. This research used our product, the PacePlate, to conduct whether blue light influences the eating behavior. Participants were asked to eat two same-sized portions, one with the light from underneath the plate and one without the light. While they were eating their bites where timed.

Results showed that people ate slower when eating with the blue light, there was more time between bites. Questionnaires were done to see if this effect was conscious or subconscious. Many thought they ate faster with the blue light, while measurements showed they actually ate slower. This contradict each other what is very interesting.

## Rituals

Rituals is a company which focuses on letting people enjoy the little things in life by experiencing the small rituals we experience everyday. The sell body and home products in the middle segment, almost all product have a distinct scent based on Asian traditions and ceremony’s.

Multiple analyses were done to find where a design could contribute to the shopping experience in the store. These analysis include; interviews with employees and customers, value framework, value proposition, SWOT (Strength, Weaknesses, Opportunities, and Treats), value flow model and a board of innovation.   
An important value of the company is personal contact in the store and providing an enjoyable shopping experience. This can not always be given when there are too much customers. We came up with Lit to solve this problem. Lit is a sphere which guides the customer to products which suit them most. In the beginning some questions about preferences will be asked, similar to question that an employee would ask. A sphere will light up in the color of the product line where the customer should go. When placing the sphere in the docking station at the given product line, light underneath the suited products will light up.

## Wrist brace

This project was about using a 3D scan of the human body to make a perfect fitting accessory. I choose to make a wrist brace. Looking online showed that using 3D printing braces was already done in the small scale, with potential to go bigger. This is while there are many advantages of 3D printed braces or casts. They can be made using 3D scans and are therefore individual and well fitting. 3D printed casts can also have a more open structure than what is seen with plaster casts, giving room for scratching and cleaning. For my design I chose to use a Voronoi pattern. The brace is made out of two sides to make it easy to put on without the need of bending or twisting the wrist. One side is closed by elastics, this side also works as a hinges when opening the brace. The other side is closed by sliders.

## Vr

Virtual reality is evolving and gets more popular. Therefor we took a look at how VR could potentially take over social media, by designing a concept for a social media platform in a VR environment. Looking at current platform we made some services that needed to be supported. Like making posts, sharing photos and chatting. We also took a look in what VR could offer. Like 360 degrees images and video that give you the opportunity to emerge more, and using sound and visuals to give a more lifelike experience to chatting.

In the final design we made a platform based on the inside and outside of a house, the outside is the inactive environment where you can make posts and see posts of others. These posts consist of the avatars of the other users holding bubbles with their post. Just simply peeking in lets you see the picture of video in a 360 degrees view. Inside you enter the active environment where you are able to see others who also entered the house and you are able to chat with them. If you’re in the living room of the house this conversation is open and everybody is welcome to join, when going in a separate room you can have a private conversation.

## Photography

## 3d modeling

## Modelmaking

## Technology