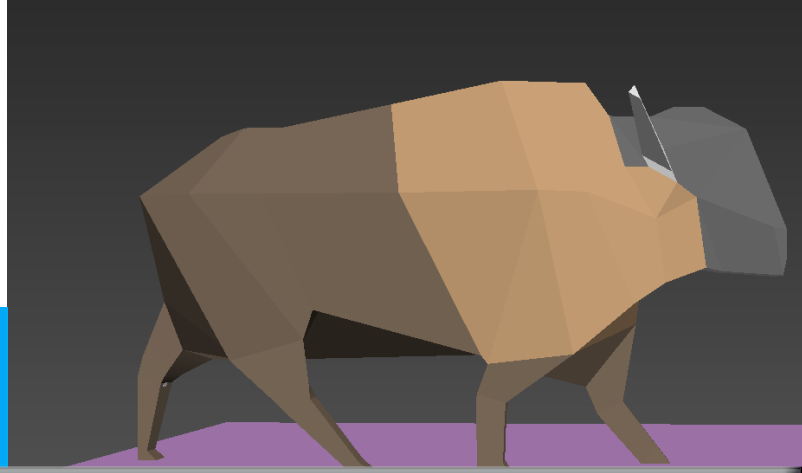
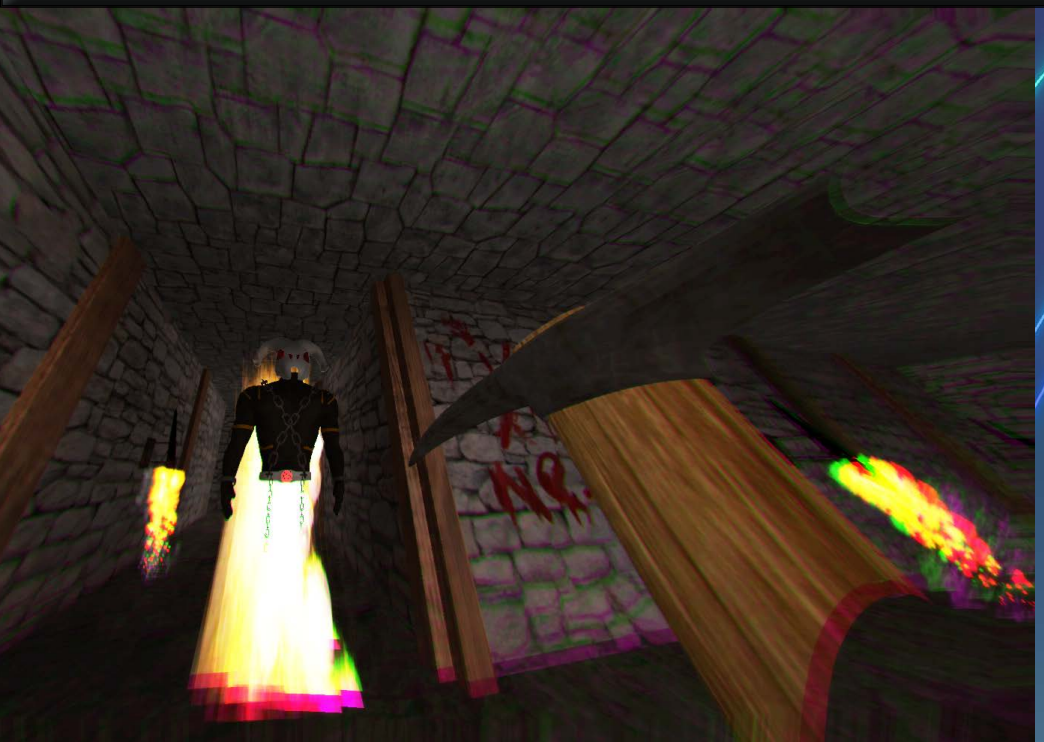
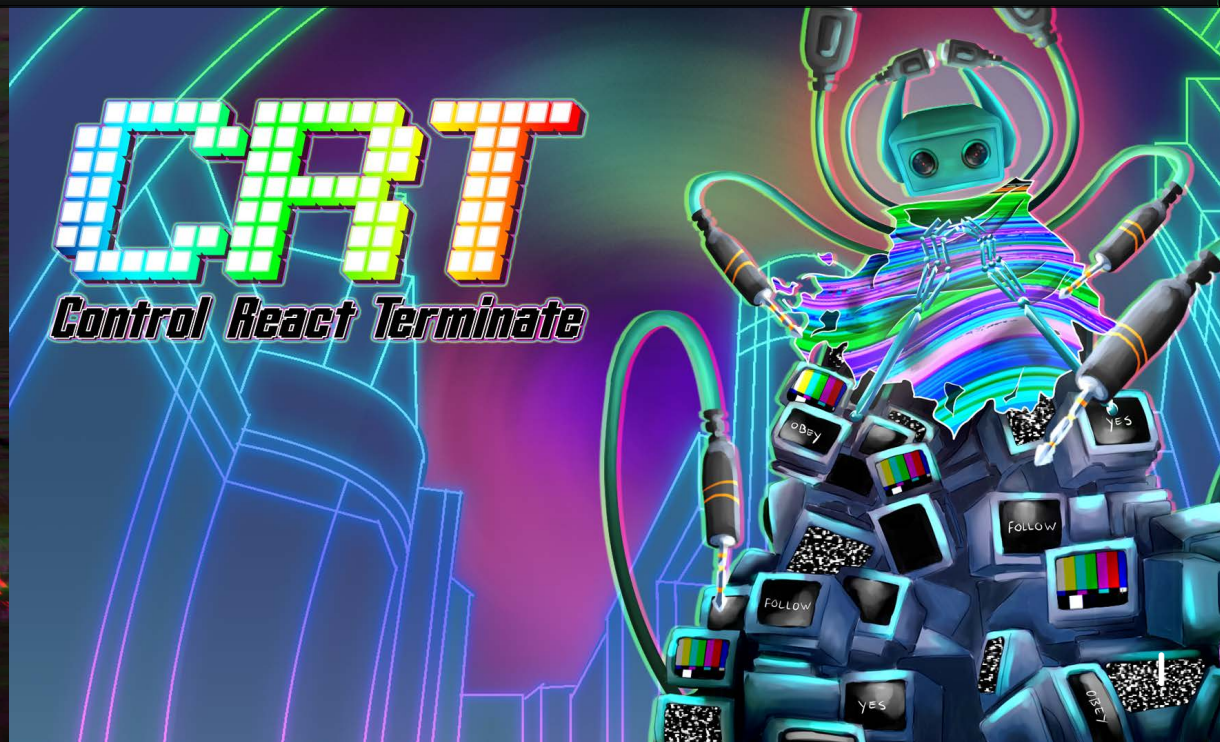


Niels Tromp

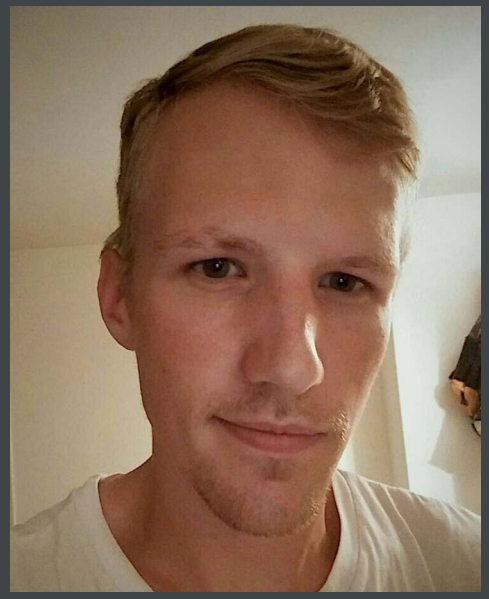
Portfolio 2013-2018





Niels Tromp

Game designer

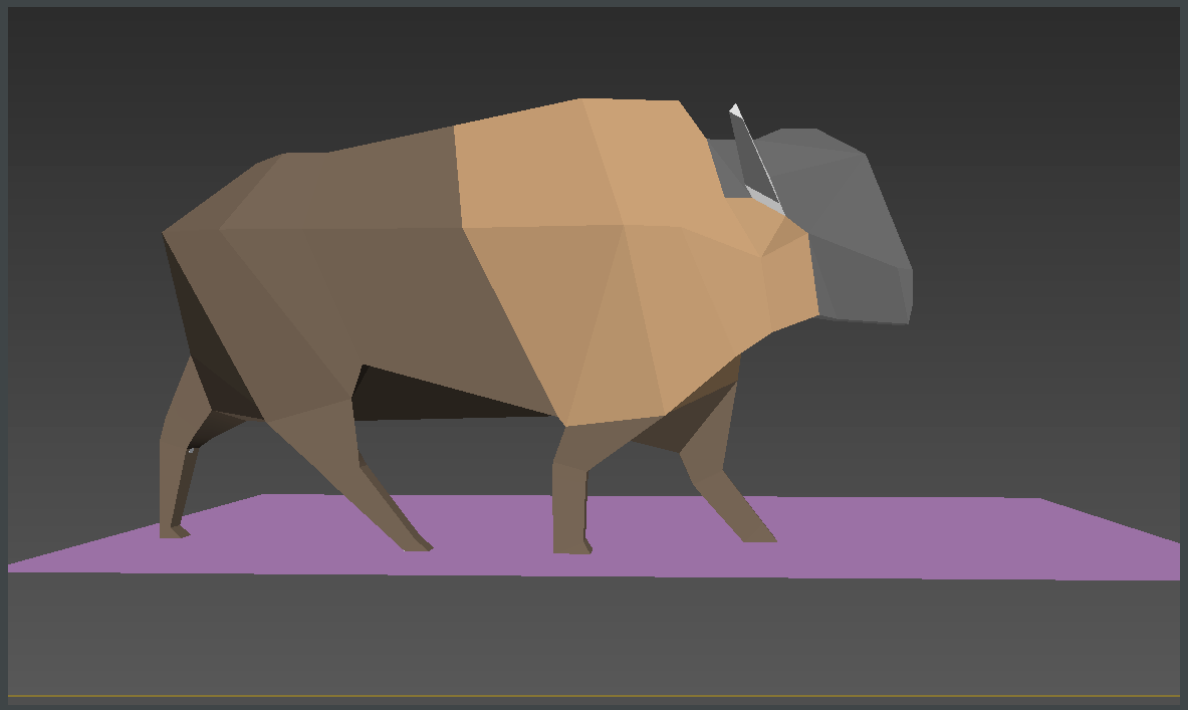


Hello reader!

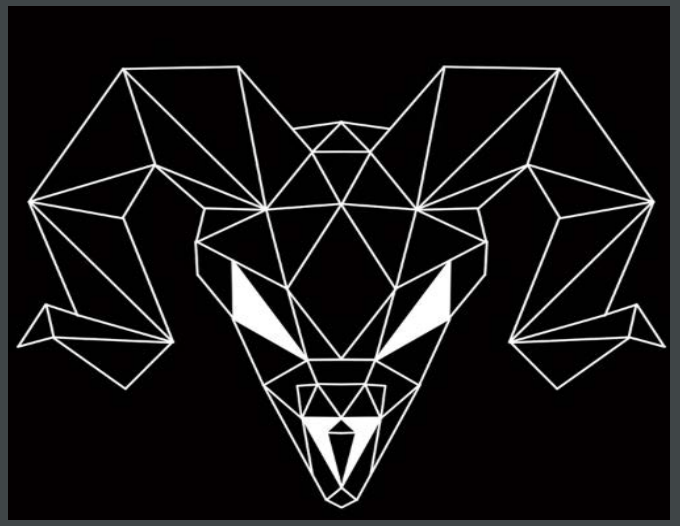
I am pleased to see your interest in my portfolio within the world of Game design. In the following pages, you will read about all the products I've contributed in during my bachelor Game Design & Development at the Hanze University of Applied Science in Groningen, The Netherlands. Each game is developed in Unity3D and per game you will read about my role, one of the UI/UX choices and a short summary of the game.

1. The inverted tower of Nolybab
2. Colony project
3. CRT
4. XVR Cardboard
5. Sinc
6. Lightyear
7. Toy'er defence
8. FIT prototype

Followed up by some examples of UX that gave the game a special touch, UX problems I've faced and solved, web links to trailers, downloadable- and playable builds and my Curriculum Vitae.



The inverted tower of Nolybab



The Inverted Tower of Nolybab is a game I've worked upon as a Game designer and 2nd project leader. This game is developed with a team of 6 persons at the end of my second year of the bachelor, with one year of experience in Game design. Within the team, I was responsible for decisions within the concept and the creation of new features. Furthermore, I helped the project leader in planning meetings, setting deadlines and planning sprints.

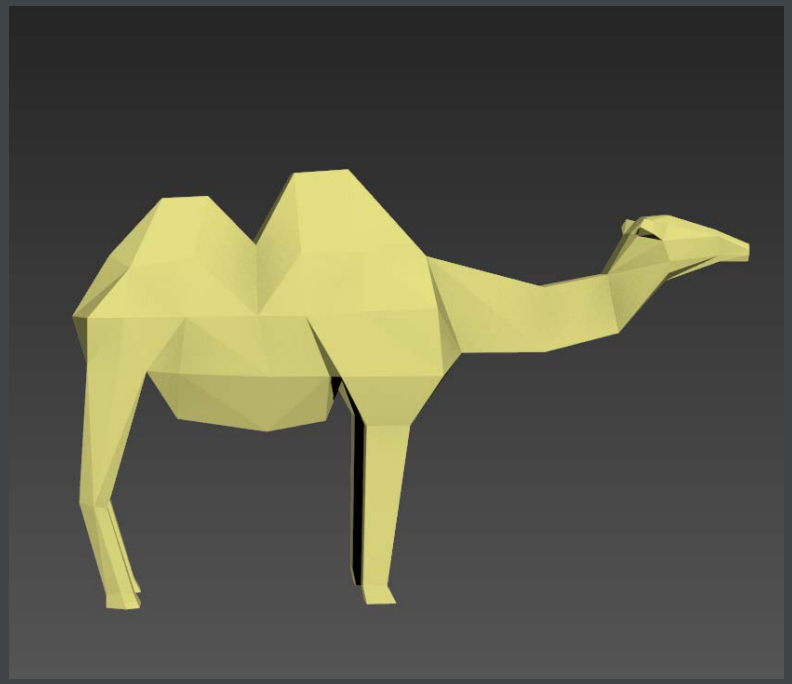
The game is a first person dungeon crawler and is developed for Windows where it is playable with a controller, whereby a VR version is available to improve the immersion. In the game, you play as Thomas who is searching for his dad who has disappeared.

You stumble upon this strange tower he has written about where you have to solve the maze and reach the bottom of the inverted tower. You carry a map with you but there is no direct path, you have to break walls to get to the stairs. But there is a catch, you can look down to see the map you carry with you, but it will increase your sanity because Nolybab sees everything and will catch you off guard. Please watch out for the mysterious guard of the tower or else...

Colony project

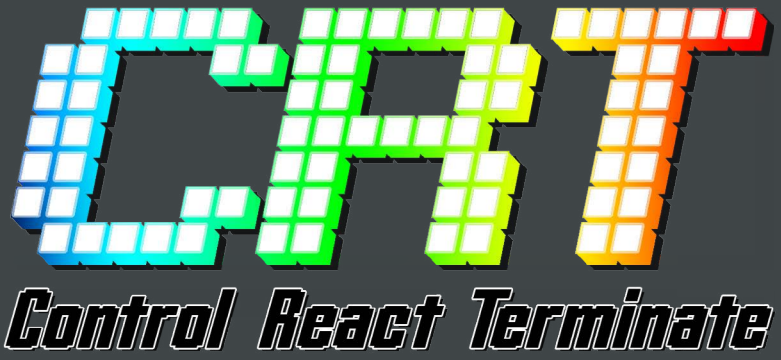
The project 'Colony building' is a game I've worked upon in my third year of my bachelor, with one and a half years of experience in game design. Within this project, I have worked as the lead game designer in a team of 12 persons for one semester. As a lead designer, I was responsible for the concept, where it was going and which features will be worked upon in the upcoming sprints.

With four other game designers, it was my role to distribute and align the work within the (game design)team. Besides the role of game design, I fulfilled the work as one of the 3D artists and animators. The developed prototype is a post-apocalypse real-time strategy game made for Windows. Within the game, the player has to build his colony through scavenging for wood, stone, food, and parts from abandoned buildings. with the presence of wild animals and other surviving tribes there is combat involved in the game. The unique element of the concept was the realistic elements such as time to collect resources, hunger, stamina, day and night and the time management within these elements.



CRT

During the Innogames game jam at Gamescom 2016 I worked upon the game CRT: Control. React. Terminate. This was during the first semester of my third year of the bachelor and my role during this game jam was game designer and 3D artist. Within these roles, I came up with the concept made it concrete and expanded it with features and modeled and animated the crowd-robot.



The theme of the Game jam was 'masks' where we interpreted it as disguising yourself as not to stand out in the crowd. The game is a first-person action game developed for Windows and Web.

The game is set on a planet inhabited by robots where the protagonist has infiltrated to stop the dictator of the planet. To do so he has to move through the crowd without being detected by the scanner send out by the dictator. to do so he has to put on a mask with the corresponding color of the scanner wave. The closer you get, the faster you have to react and terminate the evil dictator.

XVR Cardboard

XVR Cardboard is the application I developed for the company XVR Simulation during my internship together with three interns within the third year of my bachelor. During this internship I was responsible for the game design, project management, 3D art and scrum related tasks.

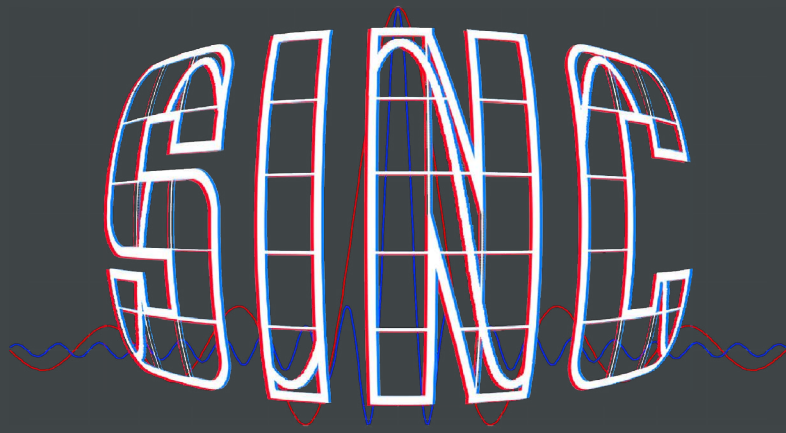
The app is developed for Google Cardboard as a marketing tool for the company XVR and this app is the second project I did in VR. The app is situated on an island where you have have to help emergency responders by playing minigames at the police, firefighters and ambulance. When developing for VR you have to avoid dislocation of the person itself and in-game. Therefore we chose to move the player around by teleport by gazing upon waypoints. All instructions are placed inside the world or told by the emergency responders by lack of interface elements.

The content of the minigames is as follows:

Ambulance: Move around the area and find the casualties of an accident and escort them to the ambulance by gazing upon them.
Firefighter: Extinguish a fire in a car dealer with your sight.
Police: Escort a crook in 3th person view through a maze with your head movement.

Sinc

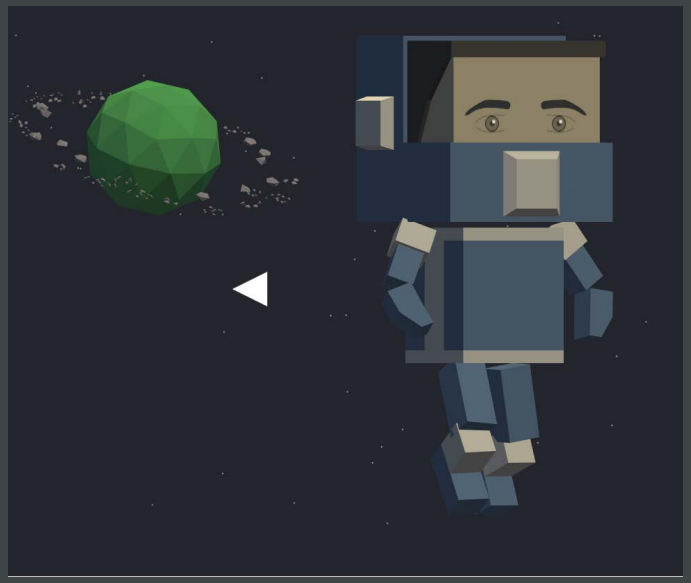
During the Global Game Jam 2017, I've worked upon the game Sinc together with seven fellow students. This was during the second semester of my fourth year of my bachelor. During this game jam, I was responsible for the concept and support inside the team for a flawless co-operation between the different disciplines.



The theme of the game jam was 'waves' and we combined the idea of line-rider and an analog sine wave. Within the game, you control the phase and frequency of the wave instead of the penguin, which is used as a character because of their natural habit of sliding on ice. Because a sine wave is an analog we chose to use a controller and thereby be able to gradually change the phase and frequency of the wave. To add a more analogue look to the game we made the tv screen distort, seen by the elements on the top and bottom of the screen. The score screen is limited to three letters like the old arcade games.

The goal is to get the high score which can be done by launching the penguin into the sky by changing the phase and angle of the wave during ascend and launch of the penguin. By doing this correct consecutively you will get a multiplier that will increase your score more when collecting stars and planets. Look out for the polar bears otherwise it is game over.

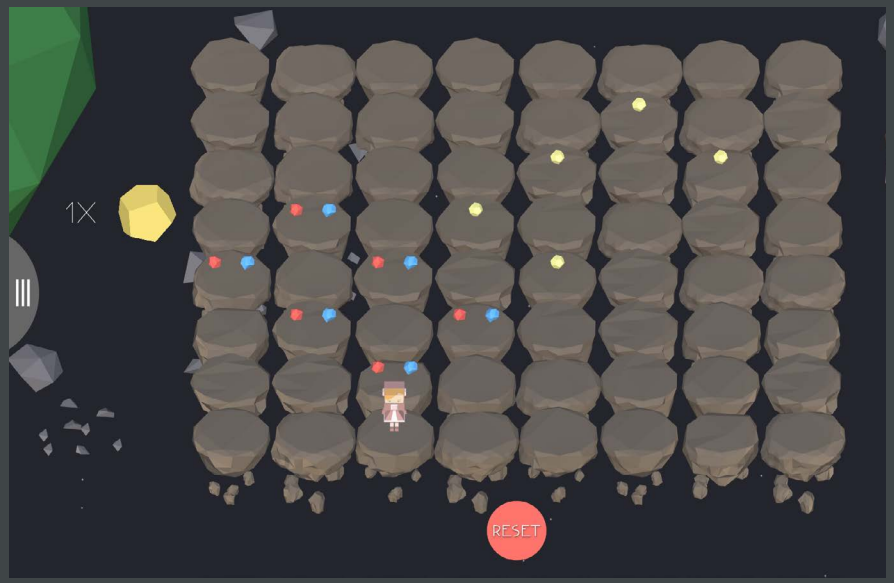
Lightyear



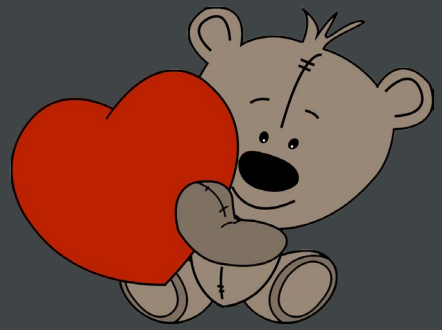
Lightyear is an educational game I've created together with three fellow students during the first semester of my fourth year of the bachelor. Within the development, I was responsible for the concept, creation of new features and scrum related activities. I made simple animations for new features as a reference to the feature used as a template for the artist and programmers. This way of working seemed to be very effective by finishing a fully functional prototype without disturbances during development.

The game is a top-down grid-based puzzle game, aiming to teach players to plan ahead. To do so we reduced the interface to a minimum to focus on the experience without any distraction. With simple text and icons we made the interface as simple and understandable as possible.

Within the game, the goal is to collect asteroids of the same color in rapid succession. You can do this by jumping over each asteroid individually, or draw your path on the grid along all the asteroids. During the first levels the user will get familiar with the game mechanics and different shapes of the path. As the player advances the layout of the asteroids will have different patterns, more colors are added per level, the starting point has to be chosen, missing asteroids have to be placed, a complete row have to be shifted and more other mechanics to have a good learning curve.



Toy'er defence



Toy'er defense is a game made during a self-made game jam together with five fellow students after our fourth year of the bachelor. During these three days, I was responsible for the organization, concept, and features of the game, testing the concept and finding and allocating bugs, foley and sound design and 2D asset design.

This game developed for Windows is a tower defense game as the name suggests but in an open space. You play as a child who has to move away to another city and leave your friends behind, something what you obviously don't want. The house is almost empty and your goal is to postpone the move by placing objects inside the house that the movers first have to pick up.

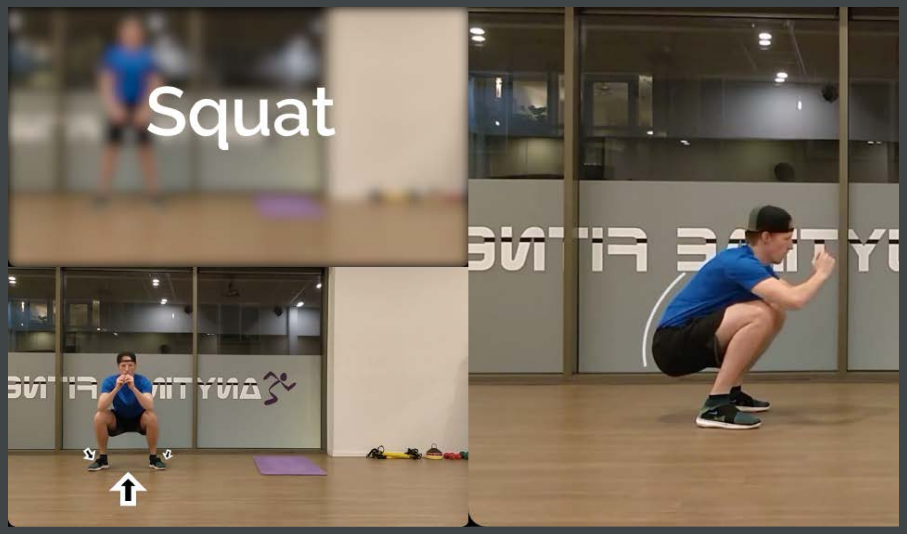
Objects can be placed by spending candy which the movers drop when you shoot them. By placing objects you distract the movers, where you can shoot them with your nerf gun too protect your teddybear, which is the last object to complete the move. Watch out for your parents, they will follow you when you draw your nerf gun and wack it out of your hands and remove one hitpoint from you. By this, you constantly have to move around, dodge your parents, shoot the movers and be cautious when to draw your gun.

FIT Prototype

FIT prototype is the working name of the application I've developed for my thesis in the fourth year of my bachelor.
The app is based on the problem of injuries during weight training due to wrong form and execution because of lack of knowledge.
The application is designed based on research on fitness, injury prevention, persuasion, feedback and game design.
I am responsible for the whole application except the montage of the instructional videos.

The app is meant to instruct new people in the world of fitness by always using the right form over the weight being lifted. This is done by instructional videos where is explained how the movement is executed correctly and what a bad form looks like. This is shown on the picture beneath and has been proven as an effective way of instructing. After this explanation, the user have to monitor the execution of the avatar and press on the body part where the form is incorrect. By pressing on the right spot an voice will instruct what the bad form is and how to correct it.

I chose instructional videos and gameplay where the user plays as the mentor, to increase the amount of information that will be retained by the user to be used in their own training. This learning method is based on simulation, directly apply the newly learned knowledge in practice.The research done on the app showed a significant difference between the form of the users before and after the usage of the app. This is also supported by the answers on the interview on the test subjects.



UI/UX Examples

Nolybab

For the first game on my portfolio, The inverted tower of Nolybab, I stumbled upon the restriction of VR regarding interfaces. One of the main features of maze games is the map, therefore a map is placed at the beginning of the level. Every level is randomly generated and by this it is not possible to recognise every level in the game. People with poor spatial awareness had a hard time navigating around the game, for this reason I wanted to implement a map you can carry with you. Within the restriction of not using a 2D UI we let the character hold the map in its hand, so you can look down to see the map. To introduce a drawback your sanity will increase when looking at the map, which attracts Nolybab.

Sinc

For the game Sinc came up with the idea to use a controller is used for the use of analogue input. By this the user could dose their input because the shifting of the wave comes very precise. To display and represent the user input two hands are incorporated in the game, which control two knobs on the TV.

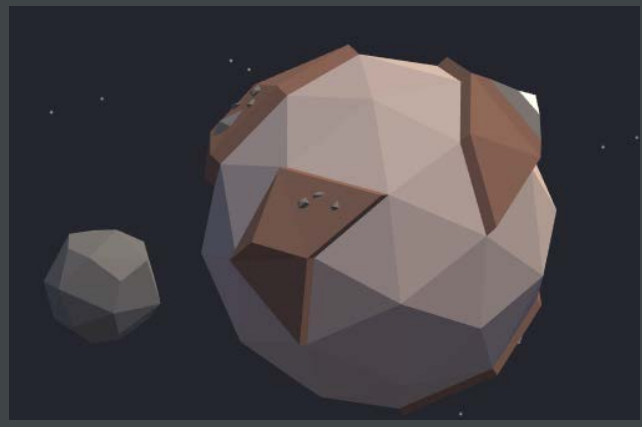
UI/UX Examples

XVR

Within XVR Cardboard I also had the restriction of using only in game interfaces. In addition to that our target audience never used VR before.
With these two considerations the game starts inside a helicopter circling around the island. First giving some time to look around and after some time instructing the player by placing instructions inside the hull of the helicopter and audio cues from the pilot.
Due to the fact of a VR game you have to rely on audio or placing instructions on a logical place inside the world. For this reason all the explanation is done via audio cues for the emergency responders. These instructions are given in separate scenes where the user can not teleport and by placing the origin of the sound on the emergency responder, you guide the users attention via 3D audio.

Lightyear

During development of new mechanics I made animations how the mechanic should look like, to streamline the process from concept to actual mechanic. By this it was clear for the artist and developers what attributes were needed and what code should be developed. By having the visualisation there was a more accurate estimation how much time the new mechanic would cost and which visual elements were needed. These animations can be found on the 'builds and trailers' page.



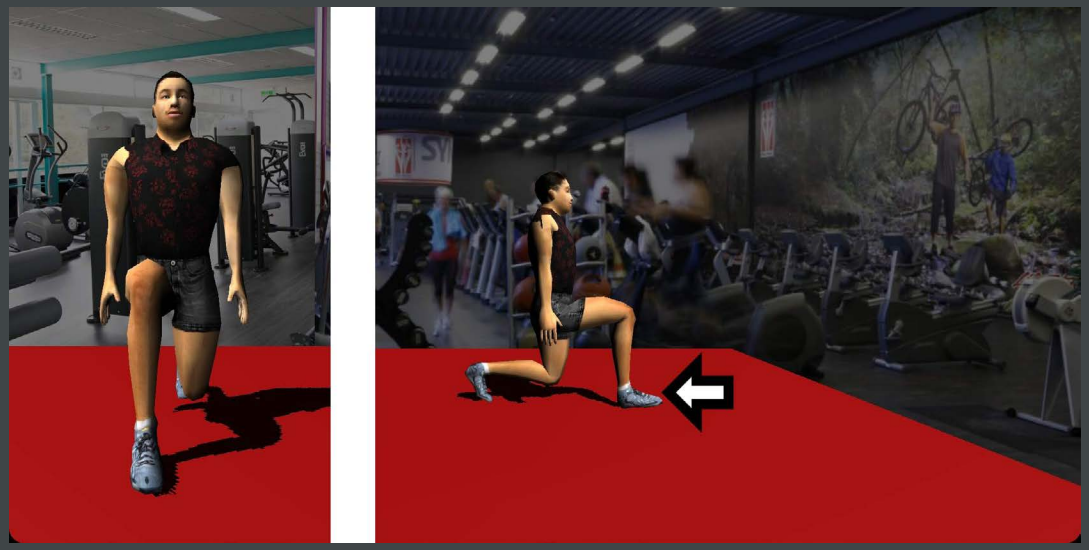
UI/UX Examples

FIT Prototype

To be sure the person uses the right execution and form during his own workouts, the explanation must be as clear as possible. By looking at the current sources of information they are mostly based on text, pictures or video, where the latter is the most clear. By showing the right execution, the person can copy and follow this.

But a wrong execution is most of the time not easy to spot because the main movement looks fine. For this reason a visual overlay is incorporated in the instructional videos to show the difference between a good and bad form.

During the gameplay there is no UI used, to reduce distraction from spotting the inconsistencies in the execution. When spotting the wrong form, again a visual overlay appears together with a voice that tells the mistake, why it is a mistake and how to prevent it.



Builds and trailers

Please have a look at the products by clicking on the following links:

Trailer Inverted tower of Nolybab
Teaser Inverted tower of Nolybab
Teaser CRT
Playable build CRT (Web)
XVR Cardboard Android app
Trailer Sinc
Playable build Sinc
Animations of Lightyear
My Curriculum Vitae