

LINX interactive Style Guide

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File properties

File properties for 3D objects:

- Environmental assets: no more than 500 polygons
- Structures 3000-5000 polygons
- Weapons: 50-100 polygons
- Characters: 5000-7000 polygons
- Boss: 6000-8000 polygons

File properties for UI elements:

All elements are made inside a canvas size of 1920 by 1080.

The elements are exported to png in their actual size that they were in the inkscape file.

Art direction / general visualisation

The general style of the game will be simple and easy to make. This has been chosen so that assets can be made quickly and effectively. The style I am talking about is low-poly ofcourse. We are going for big, visible polygons, this way the game will run smoothly on html.



The size of the polygons will be decided from asset to asset. But generally bigger assets will have bigger polygons. Furthermore the more round an asset is, the more polygons it will need. So for example buildings and mountains will have bigger polygons than rocks or trees. And characters will have more polygons than a tower or wall.

Furthermore, the game will be played from a top down perspective



This is so the player can get familiar with the surrounding area and so that the environment is easier to traverse. A top view angle also shows the scale of objects in a great way, and makes it easier to build/view structures. So in short: its for clarity, ease of use and a sense of scale.

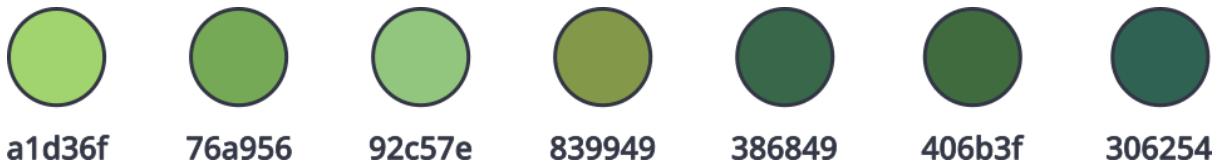
Colour palette game elements

The colour palette for game elements will mostly consist of greens, greys and browns with various other colours mixed in to make them stand out. Most of the assets will have no textures. Instead they will be a few colours spread over the UV's. Because of this, different versions of the same colour need to be used so that the game won't look flat.

Environment: The environment will consist of mostly greys and greens, with a little bit of yellow and brown here and there. Green will be used for grasslands and trees, while grey will be used for mountains. Brown will be used for tree trunks and sticks, and yellow will be used for alternate objects so they stand out .

Hex Codes environment:

Green: a1d36f - 76a956 - 92c57e - 839949 - 386849 - 406b3f - 306254



Grey: b8b7ae - 737c7e - 647b7a



Brown: ae744f - a17d4e - 97805a - 847861 - 7f7455 - 64412b



Yellow: ffebaf - f1e6b2 - d1c178



Structures: structures will be reddish browns, normal browns, and grey. The reddish brown and normal browns are for the wood the structures are made out of. The greys are for stone parts and loose rocks.

Hex Codes structures:

Reddish brown: fdac84 - ac6558 - 966051 - 4e3b3e



fdac84



ac6558



966051



4e3b3e

Brown: c28e63 - 9E8877 - 705e4b - c0825c - 5A340D - 8D5114



c28e63



9E8877



705e4b



c0825c



5A340D



8D5114

Grey:



b8b7ae



737c7e



647b7a

Boss: The boss is a giant, wooden creature. He will contain a mix of normal browns and darker browns. The body itself will not be a dark brown, but the limbs and head will have darker browns. The reason for this is so that he won't mix with nearby trees, whilst also looking visually interesting. The boss also contains some light browns that resemble the inside of a tree. To finish it off there will be some greens here and there. We wanted to let the player know that this creature is old, so with greens it looks like he has grown some fungi and moss.

Hex codes Boss:

4F3B28 - 635135 - 34271A - 494319



4F3B28



635135



34271A



494319

Player:

The player character needs to stand out the most out of all assets. It may never blend with the background, structures or the boss in any way, shape or form. To accomplish this, we gave the player character colours that are not used anywhere else. Some colours could blend with the background (think about leather, wood, hair, etc) but the main body is a noticeable blue. This blue will stand out against the green and brown background. Other colours that we use are mostly browns for tools and hair, and a colour for his skin.

Hex codes Player character:

Blues:

3F4465 - 4F5F63 - 6D8489 - 183F4B



3F4465



4F5F63



6D8489



183F4B

Skin tone:

B2A290 - 76685A



B2A290



76685A

Browns:

31210B - 685649 - 97805A - 64412B - 5D4C28 - 473E34 - 3B2718



31210B



685649



97805A



64412B



5D4C28



473E34



3B2718

Grey and yellow:

414848 - 858367



414848

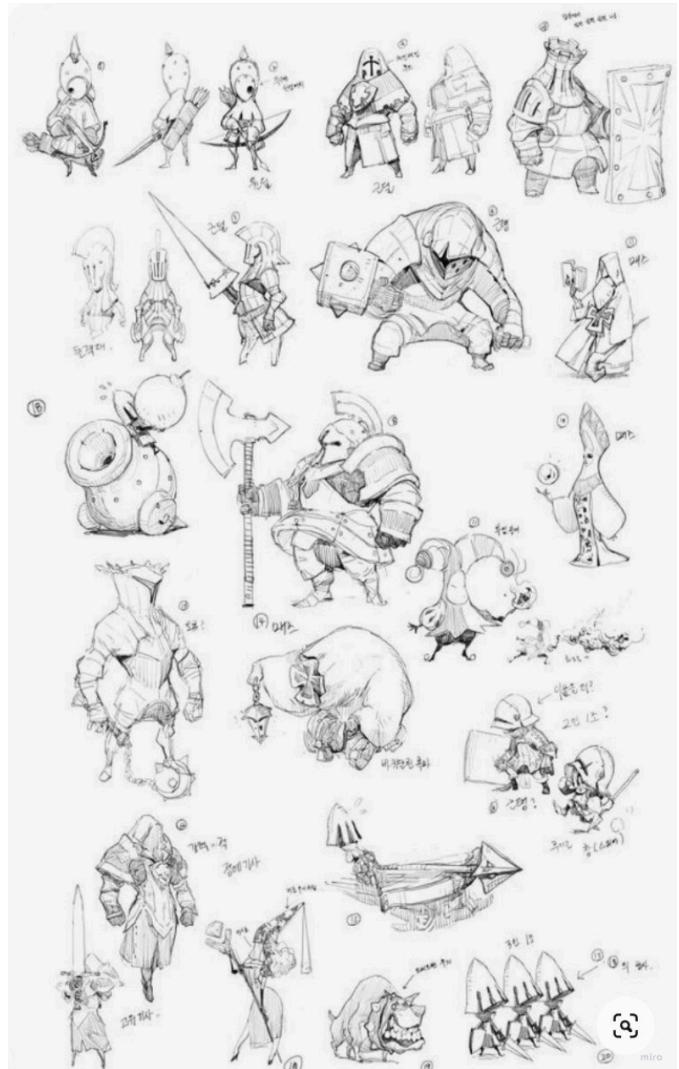


858367

Character Design

The characters follow the same design principle as the environment, although with some extra tweaks. Low-poly is once again the name of the game.

Our goal for the player character was a simple and easily recognisable shape. We want him to be a bit on the rounder side. At first we taught that exaggerated shapes could work wonders. But after the designs that we made, we favoured the simple over complex. Another design idea that we liked was for the player character to have no limbs. This would speed up the animation, and would make the design more interesting. But if the player character wouldn't have limbs, then the boss also wouldn't have limbs (and all other possible characters/creatures that could be added). At first we wanted to give the player character big shoulders to contrast the fact that he doesn't have limbs. But we instead gave him smaller armour plates as shoulders and used the big shoulder idea for the boss. The most important thing about our characters is the silhouette. If it's recognisable and distinct, then it's a good design for our game.



Colour palette UI

Paper UI

The UI is meant to represent worn down paper. In order to replicate that, the UI is a yellow/brownish tint.

(f0dbc8), The neutral colour is only used as the base fill of UI elements.

(e2cab5), The secondary colour is used for texturing on the sides of the paper elements, it is also used for shapes that hold elements.

(cfb196), The tertiary colour is used for cuts and creases.

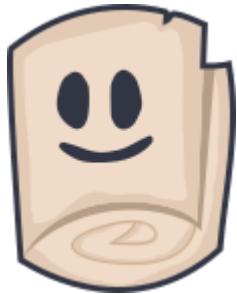
(b69d87), The accent colour is only used in case the paper folds over itself and would realistically create a shadow.

(323644), The primary colour is exclusively used for text, Outlines that indicate that the user can interact with the element, dividers and descriptive icons.

Neutral	Secondary	Tertiary	Accent	Primary
				

f0dbc8 **e2cab5** **cfb196** **b69d87** **323644**

Example UI element: Emoji bar [closed]



Stone UI

Besides worn down paper, there is one other style of UI used in the game. That style is meant to represent worn down stone. This style is only used for elements that are related to the monsters/enemies and Experience related elements.

It follows a similar design technique that is used for the paper UI.

(99a3a5), The neutral colour is only used as the base fill of UI elements.

(889091), The secondary colour is used for texturing on the sides of the stone elements, it is also used for shapes that hold elements.

(576669), The tertiary colour is used for cuts and “creases”.

(484f62), The accent colour is only used in case the stone covers itself and would realistically create a shadow and or when an element represents a hollow object.

(323644), The primary colour is exclusively used for text, Outlines that indicate that the user can interact with the element, dividers and descriptive icons.

Neutral	Secondary	Tertiary	Accent	Primary
				
99a3a5	889091	576669	484f62	323644

Example UI element:



Miscellaneous UI

A few elements don't use the paper or stone colour palettes, these elements require more attention from the player and or have commonly used colours.

(dd1f1f), This colour is only used for the health heart icons and elements that relate to the player's health.

(3b68a0), C.neutral stands for cloth neutral. This colour is only used for elements that replicate pieces of cloth.

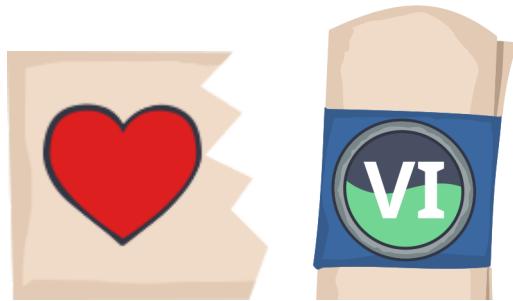
(365c8d), C. secondary stands for cloth secondary. This colour is only used for elements that replicate cloth texturing.

(73d594), XP stands for Experience points. This colour is only used for the experience bar and related elements.

(921515), This colour is only used for the boss's health bar and related elements.

HP player	C. neutral	C. secondary	XP*	HP boss
				
dd1f1f	3b68a0	365c8d	73d594	921515

Example UI elements:



Communication emoji

One of the game's most important features is the global communication that anyone from anywhere can understand.

This is done in the simplest way that anyone could understand, emoji and pings. This palette is only used for the current emoji's in the game.

(365c8d) W. neutral is only used for the wood emoji's inner circle. This emulates the inside of a cut wooden log.

(62513f) W. primary is used for the bar shape of the wood emoji. This emulates the bark of a wooden log.

(99a3a5) S. neutral is only used for the fill of the stone emoji.

(42585b) S. primary is only used for the outline and crack of and inside the stone emoji.

(932515) M. neutral is used for the monster emoji's fill.

(751111) M. primary is only used for the monster emoji's outline.

(dd1f1f) R. neutral is used for the heart of the revive emoji.

(ced1dc) R. accent is only used for the wings of the revive emoji.

(323644) R. primary is used for the home element and outline of the revive emoji.

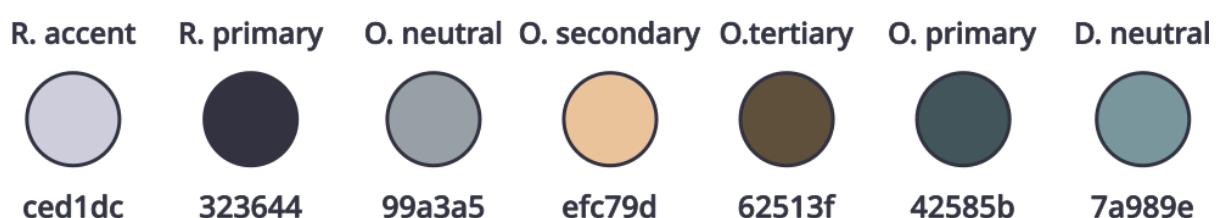
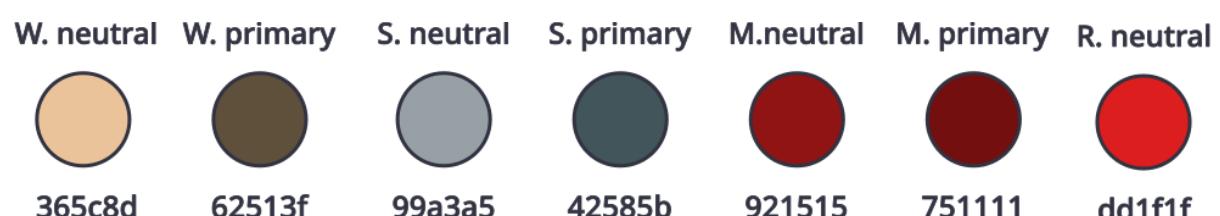
(99a3a5) O. neutral is used for the blade of the offensive emoji.

(efc79d) O. secondary is used for the handle of the offensive emoji.

(4285b) O. primary is used for the outline around the offensive emoji.

(7a989e) D. neutral is used for the fill of the defensive emoji.

(44585b) D. primary is used for the outline of the defensive emoji.



D. primary



44585b

Iconography & Text

Since everybody around the world should be able to play this game without having to learn another language or wait for a language update, we opted to almost only use iconography instead of a text based UI.

The only instances when text is used, is for the user's experience level, the streak counter and the counter per resource. The octal numeral system is used for these two assets, this is so that it is immediately clear which level you are. This numeral system is used because it is the most commonly known.

The font used for these assets is called "Best school" and can be downloaded from here: <https://www.dafont.com/best-school.font>.

Example Text element:



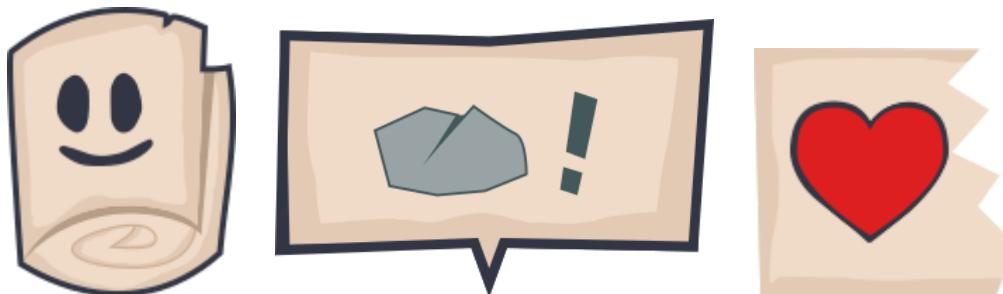
There are 3 types of icons, standard icons, emoji icons and special.

Standard icons only use a blue-ish grey (323644) fill and consist of simple shapes. These icons are mainly used for navigation and explanatory icons.

Emoji icons use fills and outline strokes. The fills are a colour related to what the emoji is and tries to convey. The outline strokes are the most commonly used colour of the emoji's fill but desaturated. Like the standard icons, the emoji shapes consist of simple shapes.

Special icons so far only include the health icons. These icons roughly follow the rules used for the previous two icons types. However the health icons have coloured fill and blue-ish grey outline stroke.

Examples Iconography elements:



Style analysis

Since the game will be running in html, all assets/elements are designed for performance and simplicity.

The 3D models use simple shapes and have a low polygon count. The terrain uses 1 colour per texture/shape. However the characters have more complicated textures to communicate more expressions.

The 2D assets use simple shapes and colours as well.

The UI/UX follows the same design philosophy as the other 2D assets.



Artistic choices

Welcome to the artistic choices section. Here we will discuss the choices we made and why we made them. We will explain our thought process and take you through all our artworks from beginning to end.

Player character:

We started with a style board, it's the easiest place for us to start and visualise what we have in mind.

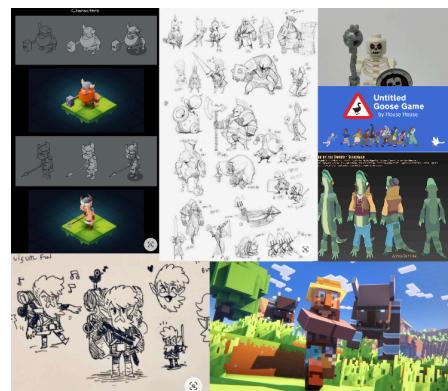
We knew that we shouldn't go overboard with the art directions since it would be a HTML5 game. So we sat down and discussed what the best performing, best looking and easily producible style for the character could be. Out of that discussion came this small style board. We discussed what our favourite and least favourite things were about all the ideas we gathered. At first we liked the idea of our character having dynamic shapes and exaggerated features in place like the shoulders. But after a few random sketches we

discovered that a more simple shape and style worked better for the player character. In the

next 2 pictures you can see the difference between simple and exaggerated shapes. After posting these pictures in our discord and letting our team decide their favourite, the upper left design from the first image was the clear favourite.



When making the model for the player character, we decided that we could make some small changes to the design so that it could be more easily translated to 3D. So that would mean that we can move an armour plate over here, a leather strap over there and everything in between. To help us translate the design to 3D, we also kept some real life examples of armour beside us as reference. We did this so that we would have reference for places that weren't drawn in the design (like the back for example).



After the model and a few of the animations were done, we decided that it was time for the textures. We didn't have a specific idea for the textures. But we knew that one thing was more important than anything else: the textures can't mix with the background or with other assets.

Since most assets are a mix of browns and greens, we decided that the player character could have more tints of blue. This way he wouldn't mix with the background, be distinct and catch the players eye. The parts of the player character that are brown are smaller in size, take the hands, feet and beard for example. We made these brown because they are smaller in size compared to the rest of the body. Even if they were to blend in with the background, the player won't lose sight of their character.

You might also have noticed that the player character doesn't have limbs. We decided to not give any of our characters limbs so that animations and models could be made more quickly.

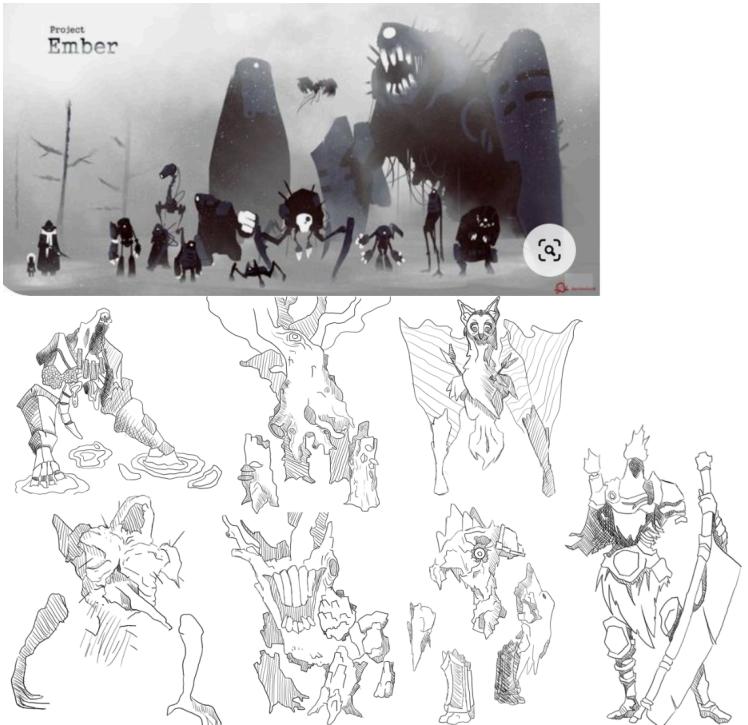


Boss:

The idea for the boss started with a singular picture that one of us put in one of their style boards. We knew then and there that we wanted a giant monster as a boss.

Instead of beginning with a style board this time, instead we immediately started sketching. It was our goal to get as much different ideas and shapes on paper as possible, we didn't want to leave any ideas on the table. It was a big focus that we'd have some humanoid characters. As well as some non traditional boss designs. We sketched these with their behaviour and attributes in mind. We taught about how they would walk, how they would attack and how they would interact with the player and structures. And after these sketches were done, we would vote for our favourites again.

The art lead said that he liked the designs that resemble trees the most, the votes from our team said the same thing. So we made 2 more designs with that same theme, and after that we had a final vote.



After the second vote the new design on the left was the best received. Everyone agreed that we like the idea of a monster attacking the player more, rather than some sort of giant.

The choices we made for the model itself were rather simple. It mostly looks like its sketch counterpart. The only a few small changes, like: we made the neck a bit higher and more stable looking, the shoulders are more broad and rounder, the arms are placed a bit more forward, the branches on his body were made larger and longer, there are no mushrooms on the



body. We made the neck a bit higher and more stable, because it makes the boss look more mighty and threatening. The shoulders are bigger and broader for the same reason. The arms are placed a bit more forward because it makes the posture and animations look better. The branches are larger because it makes the silhouette stand out more. And there are no mushrooms because we needed to prioritise other assets at the time, and adding all those little details would have cost us too much time.



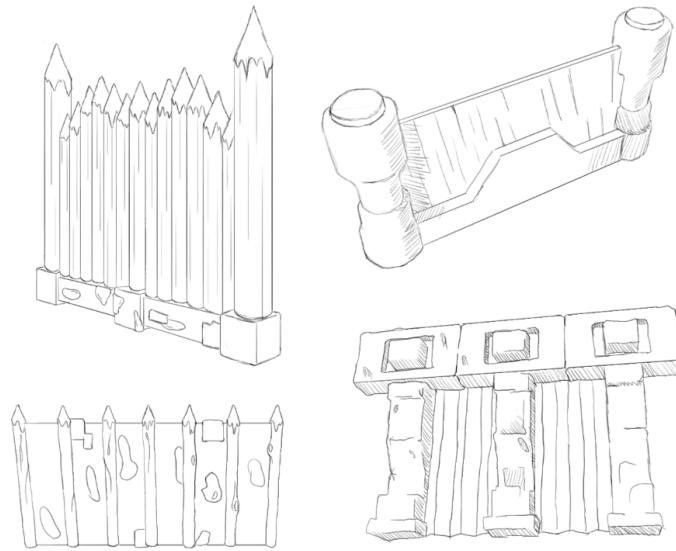
We chose the current colours for multiple reasons. We at first wanted to convey to the player that the boss is part of the forest, or that they are some kind of forest deity. Because we want the player to realise this, we gave the boss similar colours to the surrounding area (although a bit darker so they don't blend). We added

the darker brown and green so that the textures were not bland, but it also shows how old this creature actually is.

Basic wall and tower:

The basic wall was an asset that did not need a lot of time in the oven. We all agreed that it should be simple, but most importantly that they connect smoothly onto each other. To be

fair, not all designs look like they connect in a good way, but we wanted some ideas first, we could worry about how they work later. The upper left was the one we went with for the following reasons: it's simple in design, it connects to itself, it's visually appealing and it gives the exact mood that we were looking for.



So because of that we made multiple versions of the wall with textures and initiated a vote. We made dark versions, light versions and multi coloured versions. At the end of the vote, number 2 was the winner.

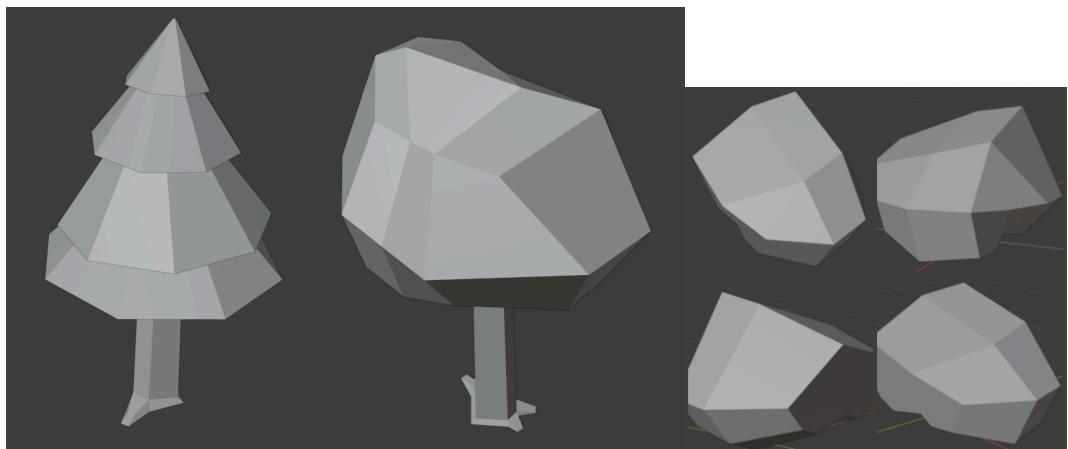
We also needed an offensive tower that could shoot at the boss. This time we didn't make designs first, because someone in our team gave us some designs that she liked from a game she played. She told us that everytime she envisioned the game, she would see structures like these. So we picked the one that we thought would work the best and we immediately started with the model. We made a few versions of the tower, and anytime someone had feedback we'd change it a bit (see personal feedback dox for all the versions). At first, the tower had a lot of upright standing pillars. Someone pointed out that it made it look like the tower was still under

construction. The tower was also way too bulky because of this, so we removed the upright pillars and placed them somewhere else. For the second version, we removed the front door and ballista. We did this because the front door would make placing towers iffy. And we removed the ballista so that we wouldn't have to make animations for it. Because the front door was now gone, the tower felt a bit empty. To combat this we place a roof around the bottom side to fill it up a bit. This worked and everyone was positive about the changes



Environmental assets:

Environmental assets consisted of things like trees and stones. We made the environment models low poly as well, so the player model stands out more, so naturally they didn't take that much time to make. We did make some sketches just to be sure that we were all on the same line. We also looked at some colour alterations to decide what version we like most. For the models we made multiple versions to avoid a stale looking environment. We did the same things for the rocks and other environmental assets. We also decided to go with a lush green texture for the trees. We did this because if we made them orange, it would indicate a seasonal change. We wanted to avoid that, so green it was.



Playing area:

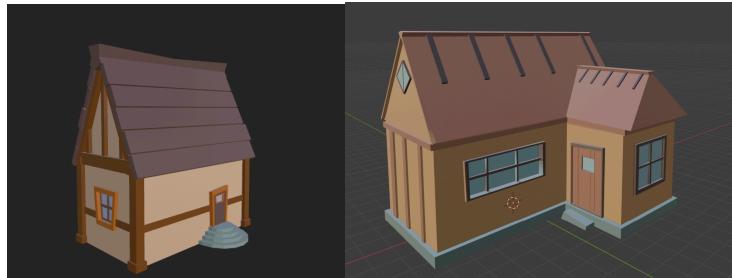
The playing area is a big square that is split into 4 rings, and we gave each ring a designated role. We did this in order to make the playing area a bit more interactive and interesting. The inner ring is where the heart of the village is located, there is plenty of wood but almost no stones in this ring. This is the safest ring out of them all. The ring outside there is mostly the same, there are a bit more trees and a very small amount of stone. The ring outside of that one has the most wood out of them all. There is also a bit more stone. The last is barren, there are no trees but plenty of stone. Furthermore if the player happens to walk to the edge of the map, the screen will slowly go darker and darker until they are teleported to the heart of the village. We wanted to do it this way because we didn't want to suddenly cut the player off. We wanted to convey to the player that the last ring is a barren wasteland, where you shouldn't wander too far.



Houses:

We placed some structures around the heart of the village. They serve no purpose other than making the village more lived in. The team decided that only protecting wouldn't be enough. It wouldn't invoke a sense of urgency in the player, so instead we made it look like they are protecting an entire village.

All houses have different colour combinations, this way it looks like they are all made out of different materials. It also stops them from blending together.



Animations:

There are a lot of animations, so we will discuss them one by one in a quick manner.

Player character:

- Idle: we needed a quick Idle animation. It didn't need to be anything special, so a quick up and down would be enough. We were thinking about making it more exaggerated, but that ended up looking more goofy so we scrapped that.
- Chopping: in order to cut wood, we needed an axe, and to finish it all off an animation. We decided to let the Player Character always hold his tool just for ease of animation and implementation. We made the chop part of the animation really quick so it would feel snappy.
- mining: this one is less snappy than the chopping animation. This is on purpose. Mining is a long and tedious process, and we felt like making the animation slower conveyed that best.
- movement: the movement animation was a difficult one to get right. We wanted to make it look retro in a way. We achieved this by leaning the torso forward very quickly with every step.
- knockback: the boss has a knock back effect on some of its attacks. The player needed to respond to this with an animation. Instead of falling over, we taught it to be more fun for the player to be flung back a little distance. The animation therefore needed a bit of airtime.
- get up: naturally when someone is flung back, they need to get up. We wanted to give the player control of their character as quickly as possible. Because if you are flung back a few times and have to wait every time until your character gets up, that can get pretty frustrating pretty quickly. So we made a short and snappy animation to combat this.

- Revive: we wanted to avoid that the revive animation looked similar to the get up animation. So we took to the internet for inspiration, and we found an idea that might be fun and different. Instead of the revived player standing up, they could float up and be put on their feet.
- dead: The dead animation is the revive animation but backwards. We did not have much time for complicated animations, and this did the trick quite nicely. I
- reviving: just like with the idle, we wanted to have a little bop in the animation. This one is more exaggerated because unlike with the idle, in the reviving animation it doesn't look half as weird. It also gives it more character.

Boss

- walking: the animation is rather slow and menacing. We wanted to convey the boss his size in his animation. At first we did this by making him pause in between steps, but this would make the boss slide across the floor in the final product. So instead we slowed it down in order to communicate its size.

-Attack: We again wanted to let the boss his size play a role in this animation. Since the boss resembles a horse, we couldn't make him swipe his arms because that would look off. So instead we made him use his weight to slam both arms down. It also makes the boss look a lot taller and more threatening.

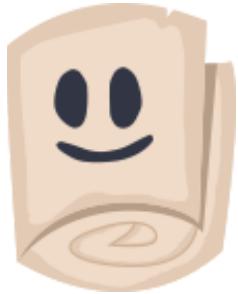
-roar: we made a roar animation that could summon an area of effect attack. We kept it slow and well telegraphed so the players could react to it. It also adds to the "entire big slow monster" theme we've got goin on

-Dying: we made 2 different dying animations. One that is more realistic, and one that is more over the top. The more realistic one just lets the boss collapse under his weight. The over the top one sees the boss quickly move its torso and arms in the air. After this, his weight becomes too much and he falls on his back. We wanted to experiment to see which one would work best. We went with the more realistic one in the end, because the placement of the body was more favourable for gameplay.

Overall UI:

Just like all the other assets, the styling of the UI started with making style and moodboards. At first we decided to use a wood plank style UI, while making the style we realised that it didn't fit in with the overall style of the game. So we got back to looking at references online and made a new styleboard. This styleboard consists of game UI that looks like worn down paper. We choose this style because it is stylized while remaining serious.

There are multiple elements that can be opened and closed. Since the UI is made out of pieces of paper, we decided that those elements look like rolled up scrolls. We chose this because this way it still fits in with the style but the element would take up too much space or disappear off screen.



Overall UX:

We wanted to make sure that the UI wouldn't take up too much space on the player's screen. In order to combat this problem, we decided that elements that would take up a lot of space, can be opened and closed.

The elements that are constantly visible are smaller and in the top corners of the screen. We chose the location and size so that they wouldn't clutter the screen.

The most important UX choice we made was to use close to no text in the game. This way everybody, no matter their native language, can play the game.

But the buttons and actions should be able to explain themselves. In order to make this possible we opted to use icons instead of text.

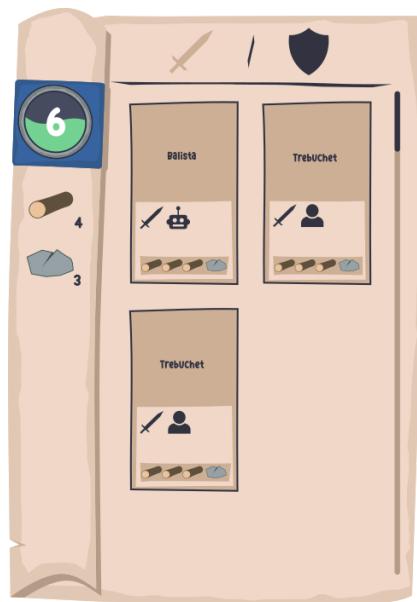
The only elements that use text, use the octal numeral system. This is ONLY used for counters. This decision was made because the octal numeral system is the most commonly known and used.



Structure tab:

This element holds a lot of information and other elements. In order to keep it clear we chose that the element can be opened and closed. However we didn't want the closed version to be useless. So there you can find your experience level and your current amount of resources.

When the structures tab is opened, it still shows your experience level and amount of resources. In addition it also shows the type of structures you can build and place into the game. The structure inside the tab holds information about what it does and what it costs to build. These are described using icons, this way it fits the style and everybody can understand it.



Emoji tab:

Usually in games they use a emote/emoji wheel. Even though that is industry standard, we opted to use a bar instead. Since this game is made for non-gamers, I wanted every element to be super clear and easy to use. This meant that I wanted it to take as little space as possible. So it can be opened and closed.

When a user wants an emoji above their character, they just click the emoji once. But in our game there is also a ping system.

Usually the player has to click and hold an area in the game and then they will be met with a ping pop up. To make this feature more non-gamer friendly, I opted to change the controls to something more simple. Whenever the player clicks and drags an emoji into the game, they create a ping of that emoji.

Most emoji's use the same speech bubble, an irregular shaped rectangle with an arrow pointing either at the player or the ground if it's a ping. However there are as of now two emoji that have their own specialised speech bubbles. These are the danger/monster emoji and the ask for revive emoji.

The danger/monster emoji has a screaming speech bubble. It has jagged edges all around to convey danger.

The revived emoji has a more square speech bubble. This is to indicate that the user can interact with it, when hold the heart starts to fill up with red to indicate that it takes time to revive another player.

Besides the UX choices, there are also some important UI choices to mention.

All the emojis have coloured outlines to make them stand out from the background and to indicate that they can not be interacted with. Coloured outlines are ONLY used for emojis.





Player health:

To teach the player to not come close to the monsters, there is a health system. The player has 3 hearts in total, each takes one hit to deplete. We choose 3 hearts because it is commonly used in other games and it will make the player feel more vulnerable compared to the monsters.

When the player runs out of health they will see a death screen. Here they get two options; to revive at the heart of the village or to ask for another to revive them. We choose two methods of revival to enhance cooperative play and so that if there is no other player close by they can respawn at the heart of the village.

If neither happens, the player will respawn after a certain amount of time.

Another reason why a player can choose to respawn at the heart of the village is whenever a player happens to get out of bounds or stuck, they can be teleported to a safe location on the map.



Streak counter:

We wanted a repeatable gameplay that a player can play in short bursts and later return to. So we went for a streak counter. The counter goes up whenever a monster is killed. When certain streak levels are reached, all players will get a permanent boost. This encourages the players to keep their current game server running.



HTML5 research

HTML5 games use simple models, textures and shading. This way they can run smoothly without any hiccups, which creates a satisfying experience for the player.

Many html games use vibrant RGB colours, this makes the game pop and stand-out from other games. They often only use one colour per model, this way the game is more optimised and will run better on all devices.

Some html games use more detailed textures, but the models remain simple and low poly. The textures don't use normal maps, bump maps or height maps. (displacement maps)

Shading is rarely used in html games. Some games do use shading, however it looks more like they use the lighting from the skybox to replicate shading.

Particle effects are used quite often, 2D as well as 3D.

In conclusion, Html5 is quite powerful, however most games use low-poly and simple textures to improve performance and to keep the experience simple.

This style is also popular at the moment, and html5 can handle heavier models and textures. No displacement maps though.

Html can handle particle effects and light shaders.



Asset list

- tree (3x)
- Harvested tree (3x)
- Rocks (3-5x)
- Harvested rocks (3-5x)
- Playing area (1x)
- Normal wall (1x)
- Passive offensive structure (1x)
- Manual offensive structure (1x)
- Defensive structure (1x)
- Utility structure (1x)
- Heart of the town (1x)
- Multi tool (1x)
- Bow (1x)
- Player character (1x)
- Boss (1x)

- Hearts UI (3x)
- Icon bar closed UI
- Icon bar open UI
- Icon speech bubble UI
- Icon scream speech bubble UI
- Speech bubble connection point UI (2x)
- Communication icons UI (5x)
- Structures tab closed UI
- Structures tab open UI
- Structure base UI
- Structure explanation icons UI (5x)
- Structure base Locked UI
- Streak counter UI
- Level bar UI