

Production Diary Semester 2

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Creative Practice 4 (M5X01569)

Production Diary Semester 2

INTRODUCTION:

Continuing with the production of our racing game Neo Drive, I started to do more work a week prior the day we start the second semester. However before doing this, I re-assessed my goals and motives that I set myself for this semester, in my presentation I did at the end of last semester I said I would work on creating a comic book, establishing the background story of our game, however looking back at this, it is not a primary goal towards our game and should only be worked on when the final game is complete and when I would have the time to invest making a story.

Neo Drive is a racing game set to have three levels playable when it is finished, the player will be able to race against AI, as well as other players while avoiding obstacles along the track. The goal by the end of this year is to have the game completed and ready to be played by anyone who wishes to, my goal throughout this semester is to continue to help develop the game by doing more drawings to help the modeller do their job, and for me to paint some of the models for when they need to be imported into the game engine.

My role as it was in the previous semester is to draw out concept art for the race track/level on a more artistic scale compared to the level designers level layout, this will help the modeller and the engine member to build and layout the level correctly. I hoped to do some texturing last semester however the game was not at that stage until now so I have tasked myself to texture most of the models and assets that will be placed within the game once they are ready.

WEEK PRIOR THE START OF SEMESTER (21TH JAN – 27TH FEB):

Thursday 24th Jan:

Today I worked on designs for mine carts that would be found either located in the trainyard area of the track or the powerplant/mine at the end of the track, I looked at a few references online of old steel mine carts, including carts which tilt over to unload their cargo, different designs that I can get creative with. I changed the design to have a hover system enabled for the carts as the era is set within the future. The drawings can be seen in figures 1, 2, 3 and 4 and the reference images I used for inspiration can be seen in figures 5, 6, 7 and 8:

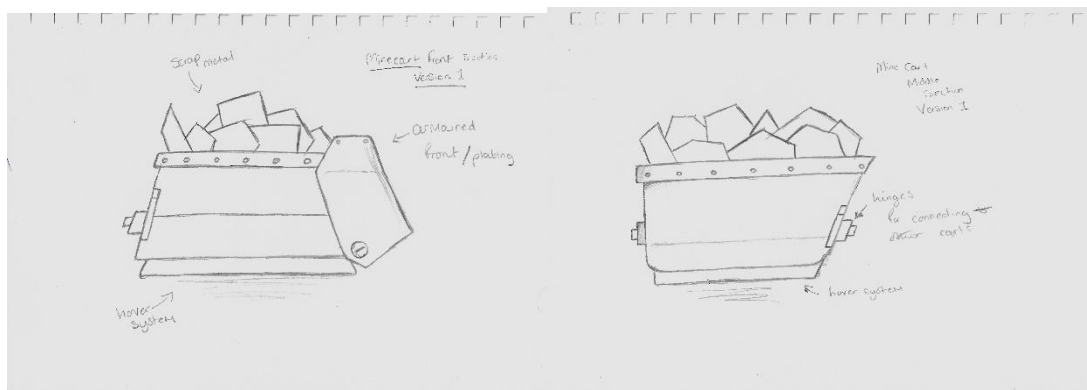


Figure 1

Figure 2

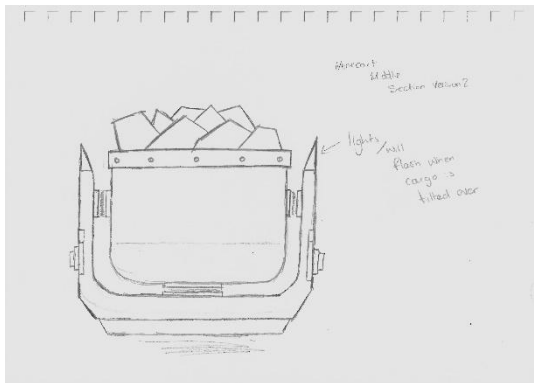


Figure 3

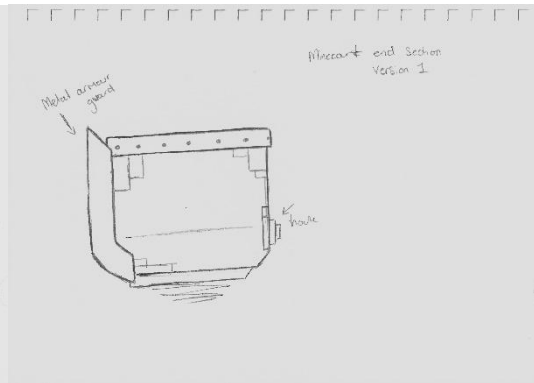


Figure 4

Reference Images:



Figure 5



Figure 6



Figure 7



Figure 8

Friday 25th Jan:

Today I worked on conceptualising universal signs that can be used by everyone for their levels, the only thing which they would need to do is change the text which would appear on said signs, I looked at references online, mainly signs from Neo Tokyo as I found them enjoyable to play around with, especially the neon styling. When drawing these signs, the only issue I had was getting the proportions correct, however through practice I was able to overcome this issue. Below are the drawings I made, figures 9, 10, 11 and 12 as well as the references I used for inspiration, figures 13, 14, 15, 16 and 17:

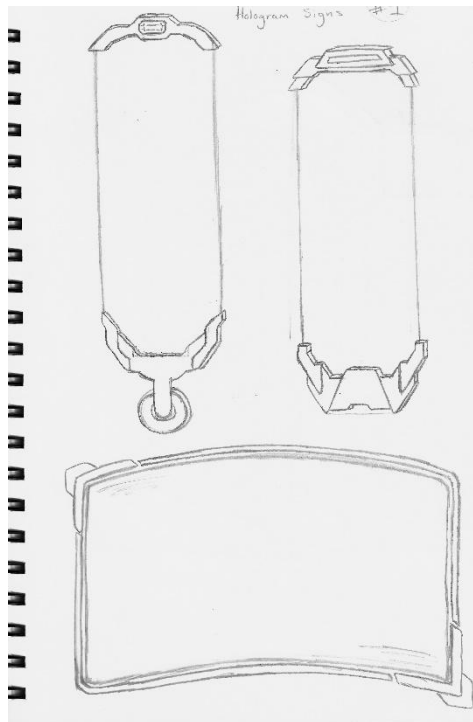


Figure 9

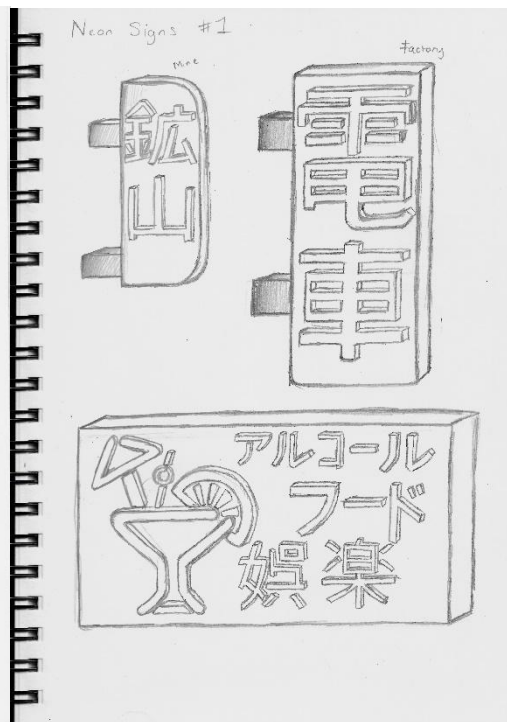


Figure 10

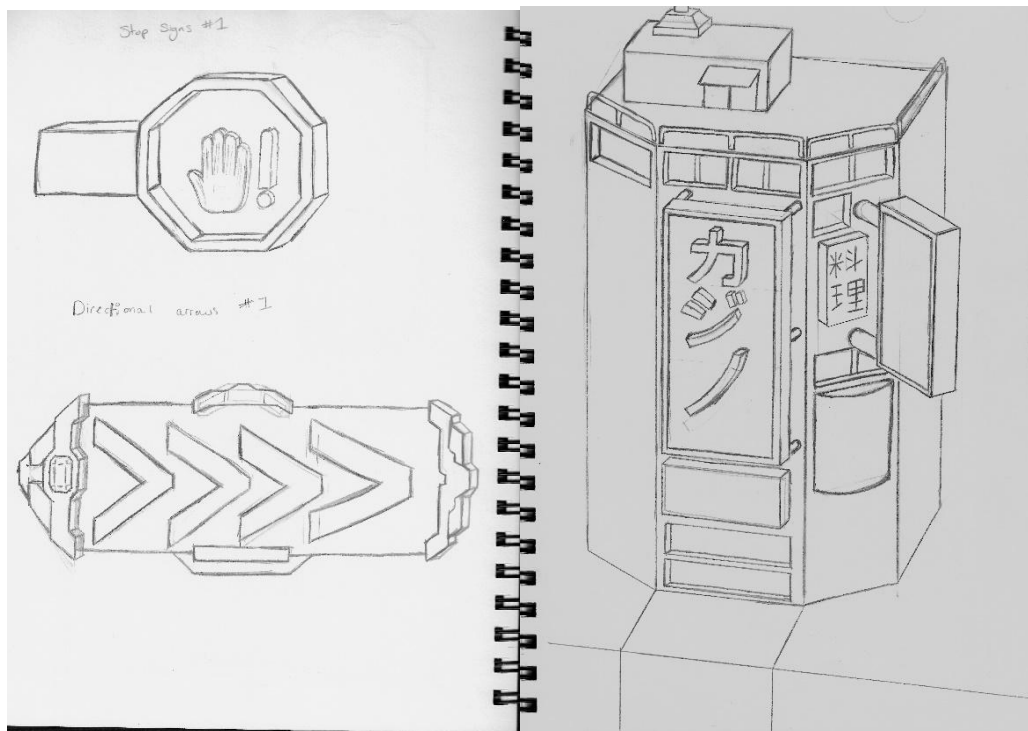


Figure 11

Figure 12

Reference Images:



Figure 13



Figure 14



Figure 15



Figure 16

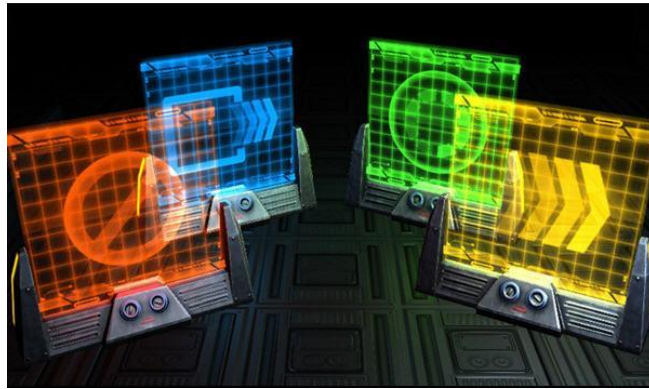


Figure 17

1ST WEEK (28TH JAN – 3RD FEB):

Monday 28th Jan:

As a class, we all had a group meeting about the current state of our video game and began to discuss things that would be needed to be changed, we did this by using the feedback we had been given based off our work in the previous semester.

As a class we discussed issues with the race track being too small in width and thought about widening the track, to accommodate for hazards being on the race track as well as there being other NPC racers and other players. In saying this our level, the Industrial level may have to be increased in length to then accommodate for the increase of width of the course, as of currently the track has narrow and sharp turns that would disfigure when a thicker track is implemented.

After the class group meeting, I then called for a group meeting for our Industrial level alone, so that as a team we can narrow down the problems with our track and correct/improve upon them. One of these problems is the fact the level looked rather scarce when it was finally blocked out at the end of last semester. So, to solve this I have planned out to draw/design concepts of buildings and other environmental assets that would fit within our level.

Another problem is the level design itself as currently it needs to be changed due to it containing a lack of information to where some assets will be needing to be placed, and also the design itself is hard to understand for me. So, I spoke to our level designer, Jason Broome and asked him to redo the level design, to fit the current agenda.

I then set up a Trello Board for everyone on the Industrial level group/team to use so that we have a place to upload our work and share our ideas for this semester. The Trello board can be seen in figure 18.

Thursday 31st Jan:

I worked on a scene within the shanty town area of our level, when drawing this out I used one of the images our level designer added to the trello board, what I did was basically drew the image again however I added a few extra things to the image, making it feel unique and making it fit in with our level design. I added a few dustbins and neon signs to the building, as well as some brickwork and steam pipes to give it that industrial feel towards it. The reference image I used can be seen in figure 20 and my drawing can be seen in figure 21 below.



Figure 21

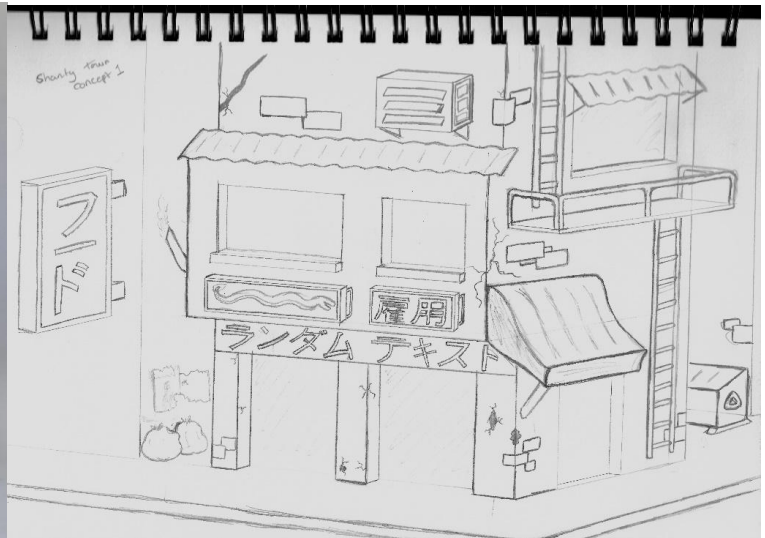


Figure 20

Friday 1st Feb:

Today we had a team meeting about the current situation of our work as of current we do not have a direction on where to go with the level, we came to the conclusion that our level does not have a theme or styling compared to the other levels in the game, for example the wasteland level is going to have an old retro styling to it and the Neo Tokyo level is having a futuristic styling. I told the present member of the team, Noah and Pered to create a mood board to help with brainstorming ideas and to have this ready for next Monday to finalise an idea, Matt was away this week so he could not be present for the discussion, I did not ask of him to make a mood board as he is currently away on holiday. Also, during this meeting, we also created an asset list onto the Trello board for everyone to use and tick off for when they completed modelling an asset, this is mainly built for Pered to use however people who do begin to model can use this.

2ND WEEK (4TH FEB – 10TH FEB):

On the Monday we came together as a team and discussed our mood boards, we concluded that the level will have a visual style of semi realism. This week I worked on concept designs for the cave areas for the race track, mainly focusing on the environmental look of the caves.

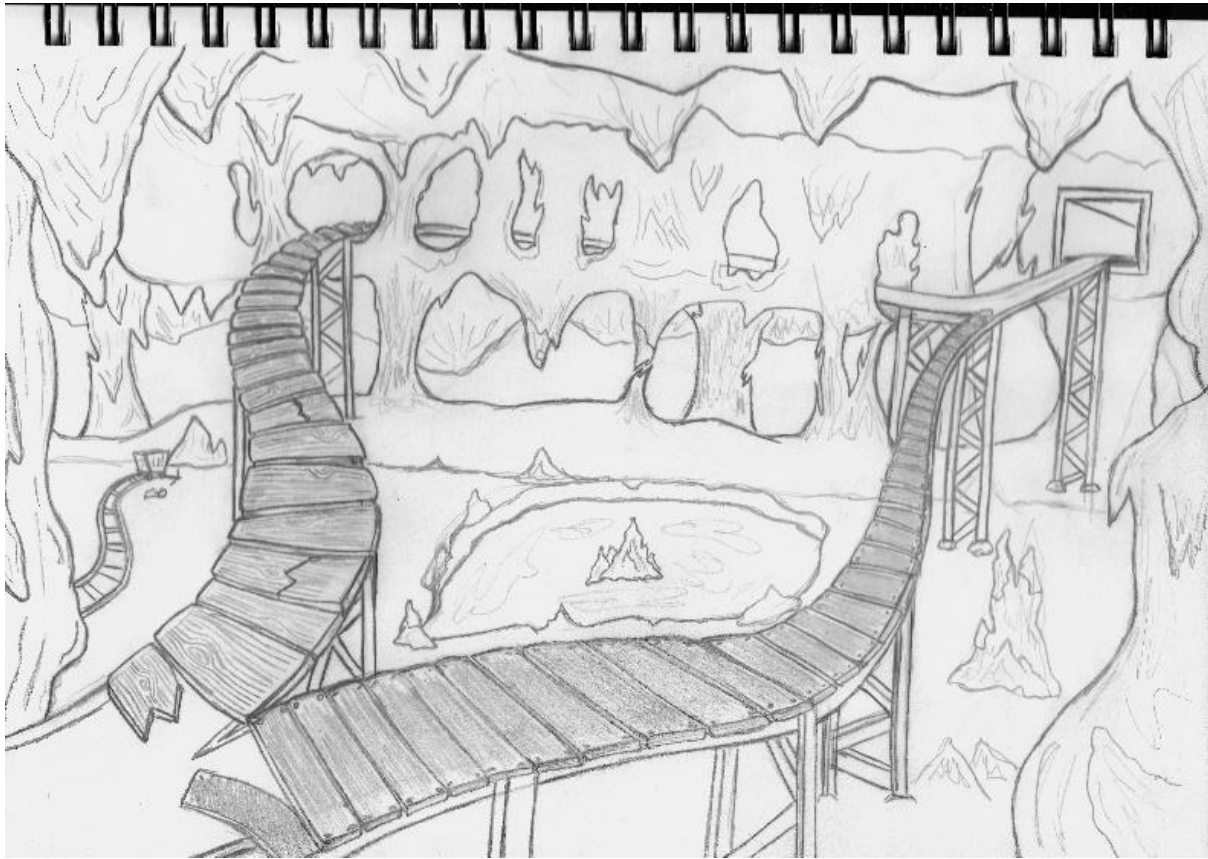


Figure 22

The lava pool section (figure 22) I wanted the player to have an option of two ways to go, one would be a faster way around however there will be obstacles in the way, such as falling stalagmites or rocks on the track, the other being a slower route but less dangerous. This area I enjoyed designing and drawing out, I took inspiration for the raised tracks on the scaffolding from the film Indiana Jones and the Temple of Doom, there is a section in that film where there is a chase scene on some old mine carts, also taking place in an old abandoned mine shaft with rickety old tracks and supports. One of the sections has a scene where there are stalagmites in between two tracks and thought this would be a great addition for our level as it would provide the sense of speed when there are rocks moving past at an accelerated pace. The only problem that I can see with the drawing is the issue of the player falling off the track from the sides I did not draw any barriers; however, this can be simply fixed by adding wooden barriers to the sides.



Figure 23

The crystal cave (Figure 23) I wanted the player to be awe and look in wonder when driving around a crystal filled cave as the crystals would glimmer in the darkness. I designed for there to be the portal at the end of the track and the rim of the portal to be made from crystals formed together to form a circle, something that will look aesthetically pleasing for players when they drive up and through it. Again, the only problem I can see with this design of the track is there being no barriers on the sides, this is a simple fix of adding crystals or rocks this time to form a barrier that the player cannot cross. The image I used for reference I did copy some of the sections and implemented it into my own, for example the large stalagmite that can be seen coming the top of the cave right the way through to the bottom can be seen to the left within my drawing. I enjoyed working on this drawing especially because of the feel and look of the crystals being jagged and the rocks looking natural. The reference image I used can be seen in figure 24:

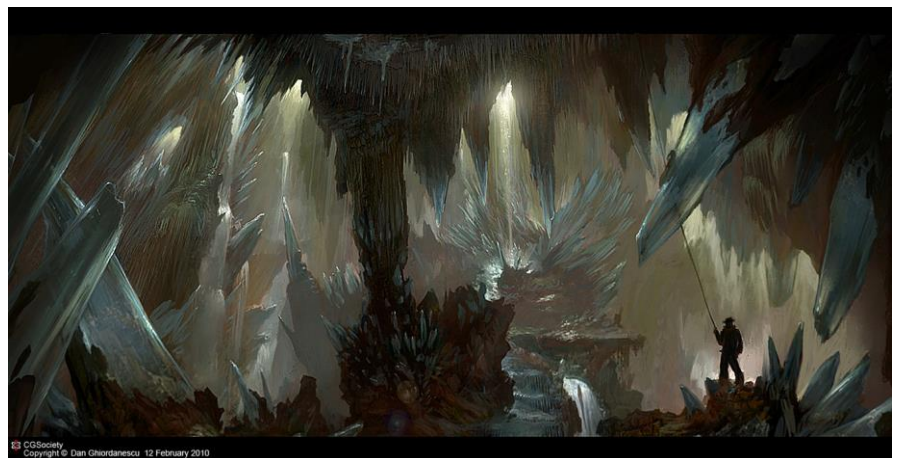


Figure 24

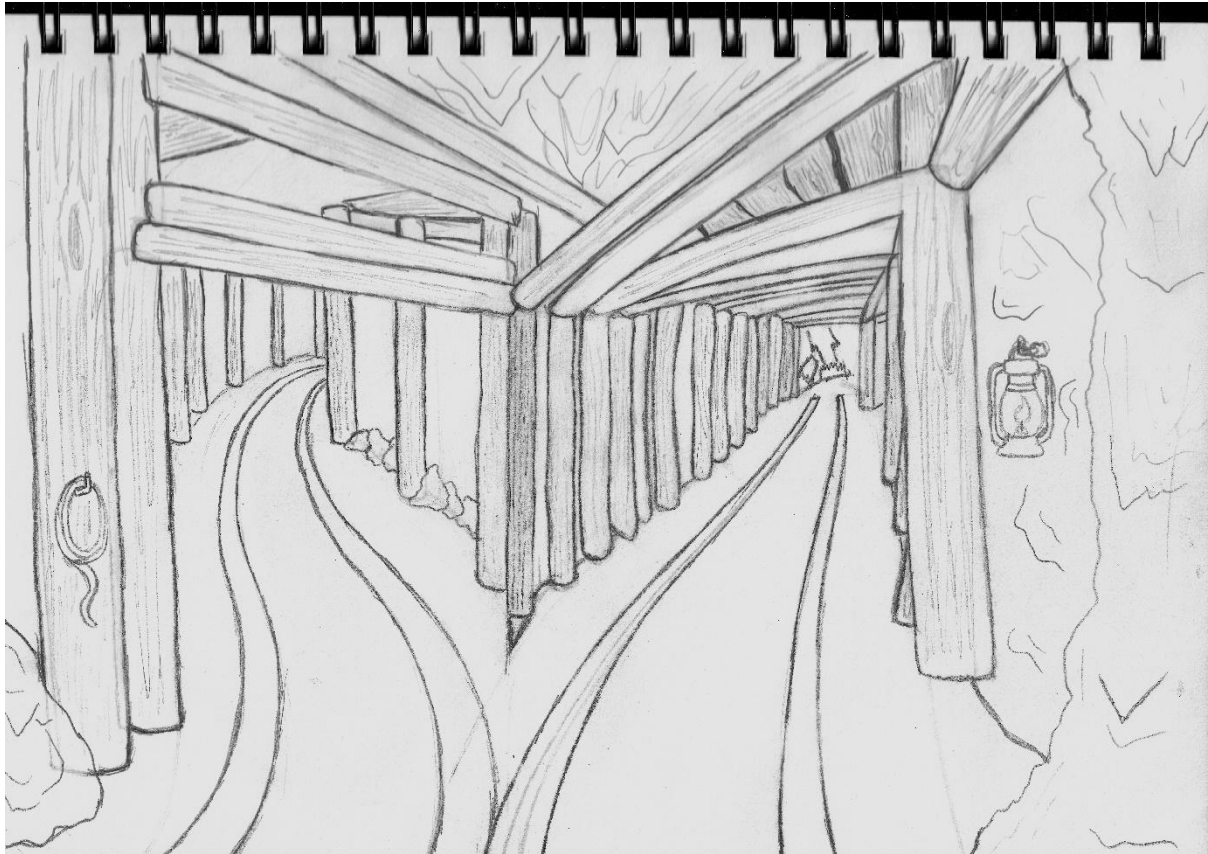


Figure 25

The split mineshaft drawing (figure 25) I drew in the thought of how the player transition from one location to another would, they would need stretches of road that would space out the track making it feel smooth and dynamic between areas. I thought designing a mine shaft would look aesthetically pleasing and entertaining for the player to drive through as it would be a quick change but not too drastic to the level. For this drawing I also referenced Indiana Jones and the Temple of Doom (figure 26), using the iconic minecart chase scene of the film. I found this drawing more challenging due to the amount of wooden columns I had to draw and getting the proportions correct due to the angle I made, nonetheless I was able to complete the drawing and I am happy with the result, I added a few extra details like I did in the lava pool drawing, this was to the wood itself, the ridges in the wood and also the detail into the rocks.



Figure 26

3RD WEEK (11TH FEB – 17TH FEB):

Talked to team about the level design and what assets need to be added, also discussed about my concepts and how we can implement them into the level.

We discussed about my environmental drawings I had drew last week and how they would be implemented within the level, I talked to the team about Noah's level design and pinpointed where my drawings could be placed or even altered to fit in areas. The lava pool area was easy to implement as the drawing was already inspired by a level design concept from last semester. This can be seen in figure 27.

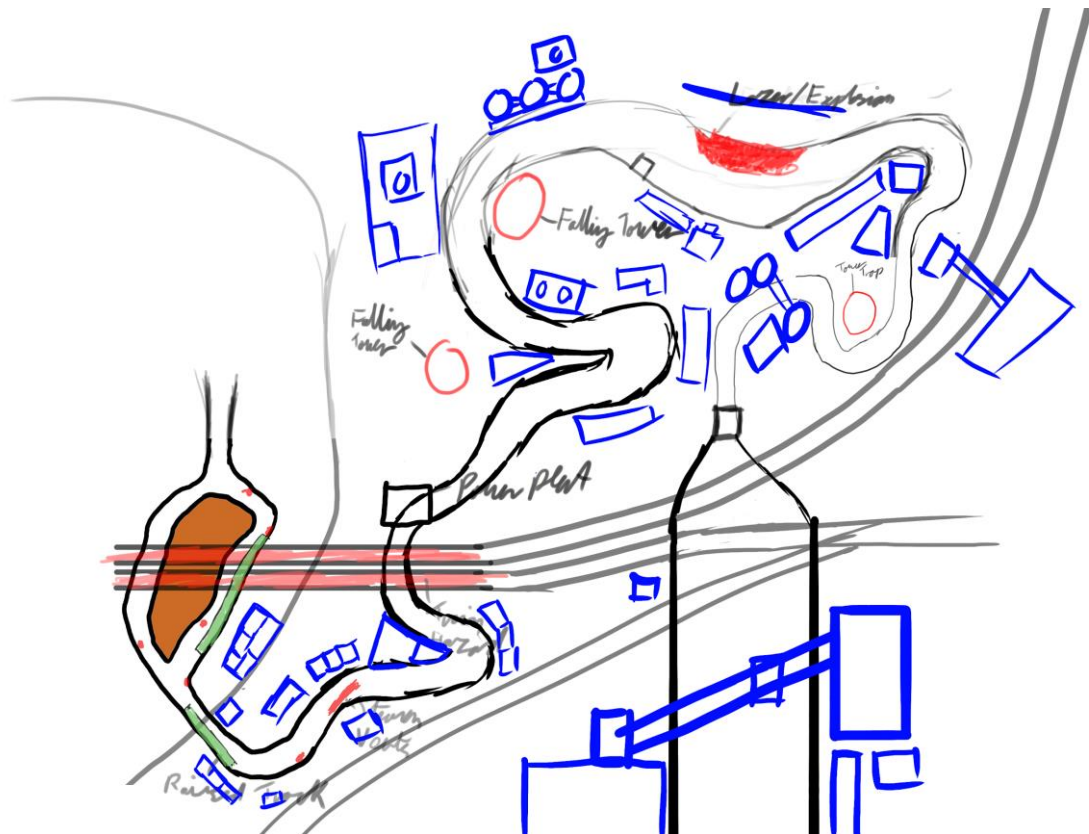


Figure 27

4TH WEEK (18TH FEB – 24TH FEB):

19th Feb:

I redesigned my Gantt Chart to the current asset list as well as the current date. I changed the colours on the chart as I was finding the format too hard to read, now that there are numerous assets on there. I changed to a grayscale format as I found it looked more professional and I find it easier to read and navigate. I extended the assets into more detail, listing exactly what assets I would be drawing out as well as categorising them into large and small. This took most of the lesson making sure that all the main assets were listed. The Gantt chart can be seen in figure 28

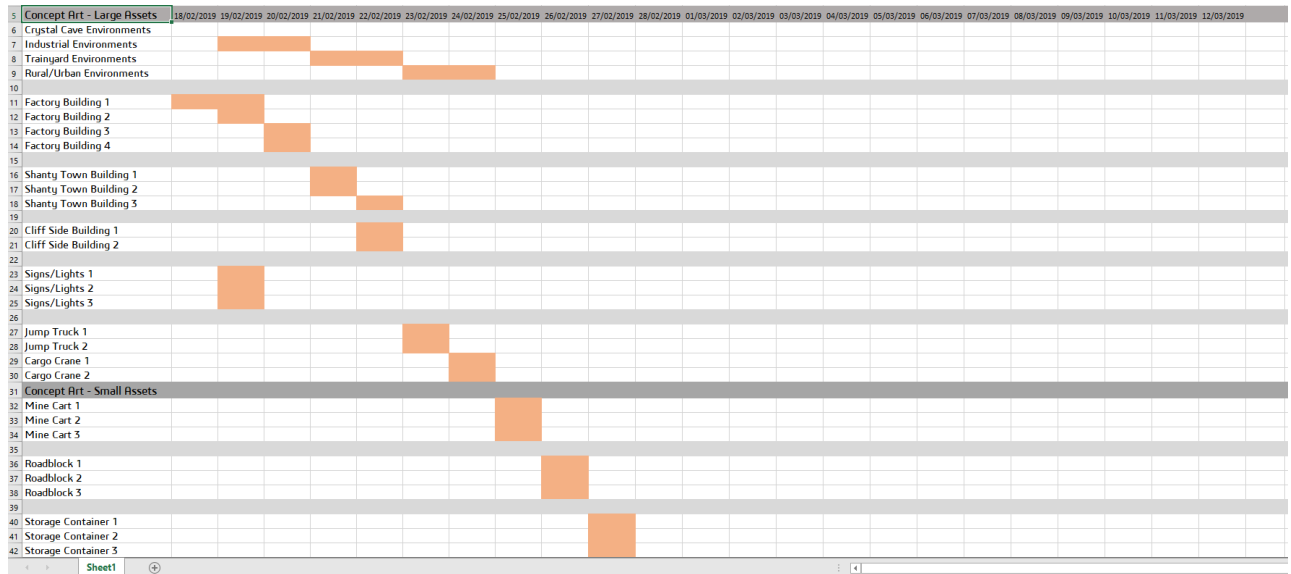


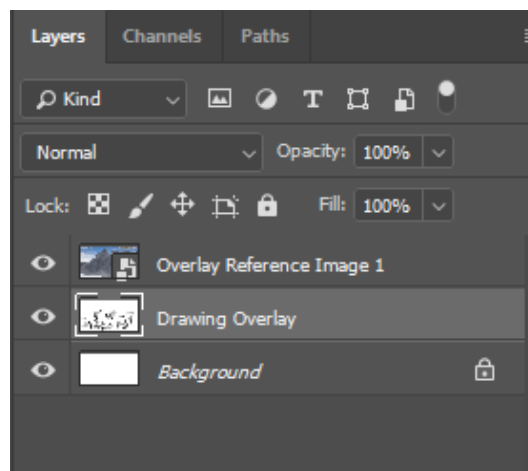
Figure 28

21st Feb:

Today I worked on the concepts for the train yard using the reference images from Matt, who works on the engine, I used the screenshot he gave me as a base for allowing me to imagine and layout where buildings would be. This was one of the times I was doing a full concept on a drawing tablet, so the quality is not expected to be on the same level as my paper drawings, I used Photoshop to do the overlay and used layers to help with managing the reference image, as well as the drawing itself. The concept can be seen in figure 29



Figure 29



These types of drawings are solely for visualising the surrounding area for the person working on the engine, in this case Matt, as he will need to know where assets will be needed to be placed, however this is only a concept for the moment and is due to change through production.

22nd Feb:

Today I continued to work on the concepts using the screenshots from the engine, I worked on a different angle of the train yard, giving Matt a new perspective on how the assets will be needing to be placed.

5TH WEEK (25TH FEB – 3RD MAR):

25th Feb:

I spoke with our Unreal Engine team member Matt, he needs some quick designs of the tracks as well as block out for them by the end of the week, I did a quick sketch on photoshop of the drawings and handed them to our modeller Pered to make them within Maya. The track concepts can be seen in figures 30 and 31.

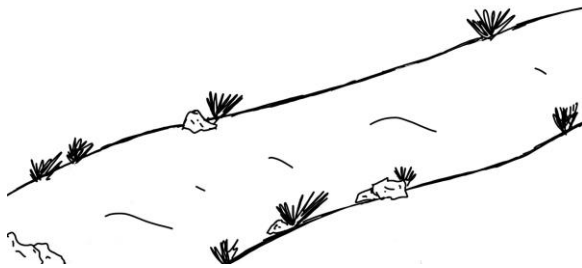


Figure 30

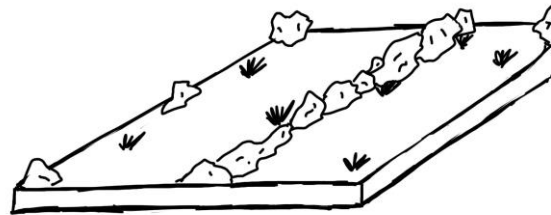


Figure 31

After this I also began work on colouring in the crystal cave drawing I did two weeks ago, first I had to create another layer for the outline of the drawing, in hindsight doing all of my concepts on photoshop would have been much more efficient as now I am having to use up more time doing the outline for this and then the other drawings I have done on paper. Before I began colouring in the drawing my lecturer at the time of drawing it out recommended looking at a game called a mobile game called Reaper (Hexage, 2014) for the colour scheme and styling. Having a look at the game, I began to attempt to replicate the art style into my own drawing. The game reaper can be seen in figure 32 and the coloured in drawing can be seen in figure 33.

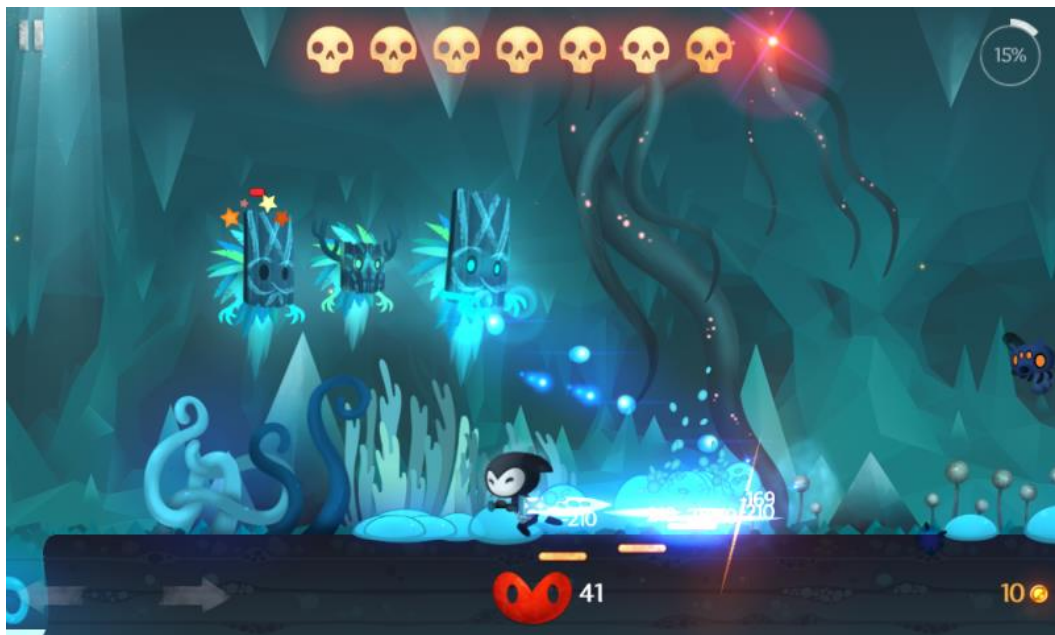


Figure 32

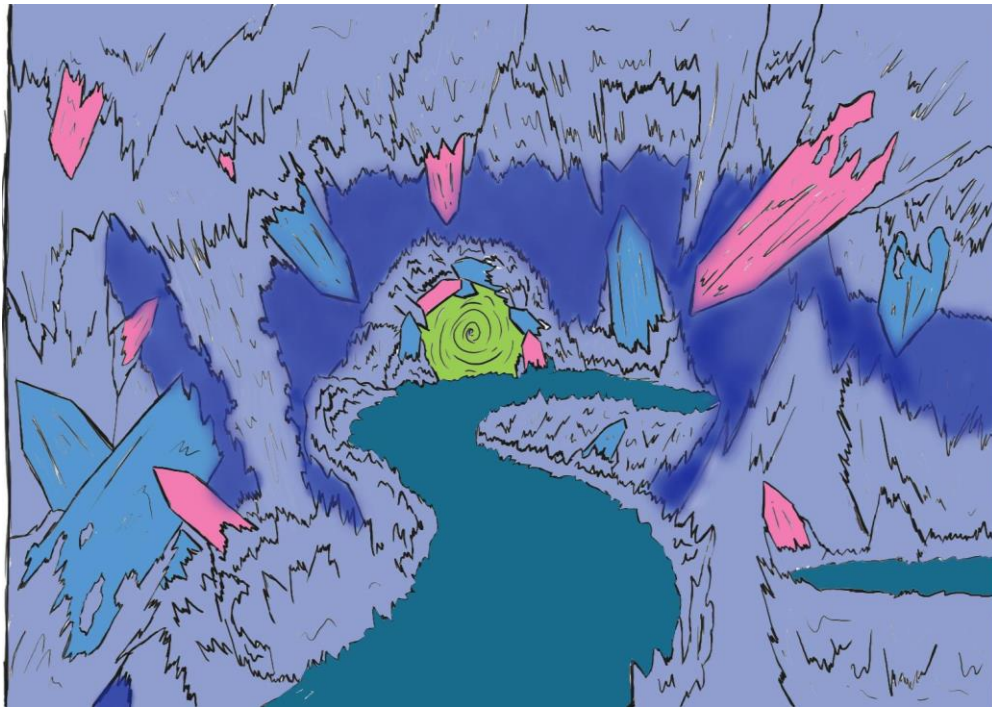
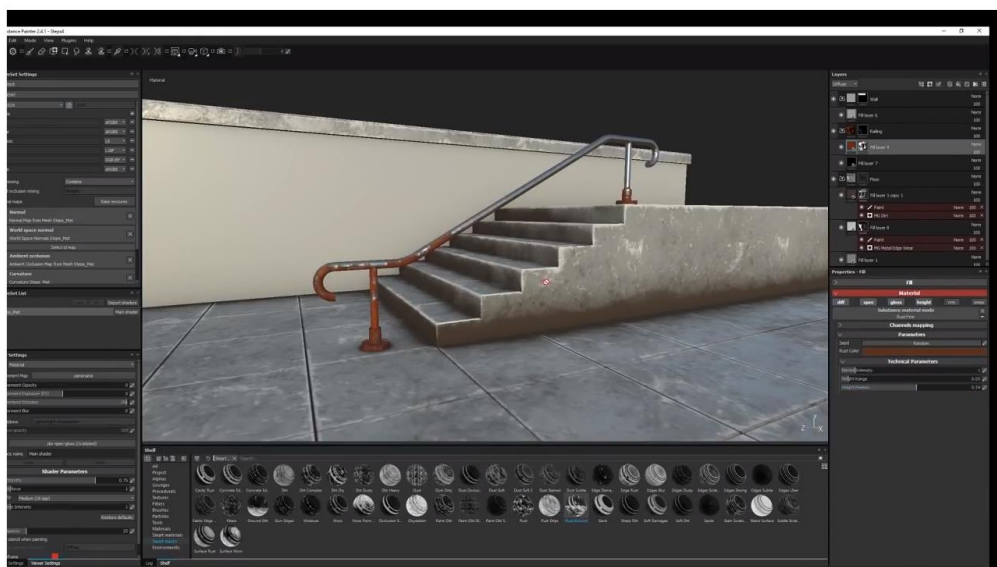


Figure 33

2nd & 3rd Mar:

I researched the basics of Substance Painter, ready for when I start to paint the bike and other assets, mainly looked at YouTube for the resources, even though some of the tutorials I watched were outdated versions of Substance Painter, they were still useful. One tutorial I went back to the most is the one seen below (figure 34) found on the YouTube channel Iain Gillespie, he goes through the basics of black masking, layers and applying different levels of textures on a single face.



Basics of Substance Painter
110,059 views

1.5K 81 SHARE SAVE

Figure 34

Another channel I looked at were Flipped Normals (Substance Painter Layers and Masks, 2019), recommended by Matt our Unreal Engine team member, I watched their content the most as they've worked on a few professional projects such as Pirates of the Caribbean and Pacific Rim.

6TH WEEK (4TH MAR – 10TH MAR):

4th & 5th:

Today I worked on painting one of the mine carts, I used the techniques I used from the research I did a few days ago, adding fill layers and folders (figure 36), segmenting sections by using the UV selection tool with black masks so it would be easier to paint sections with ease.

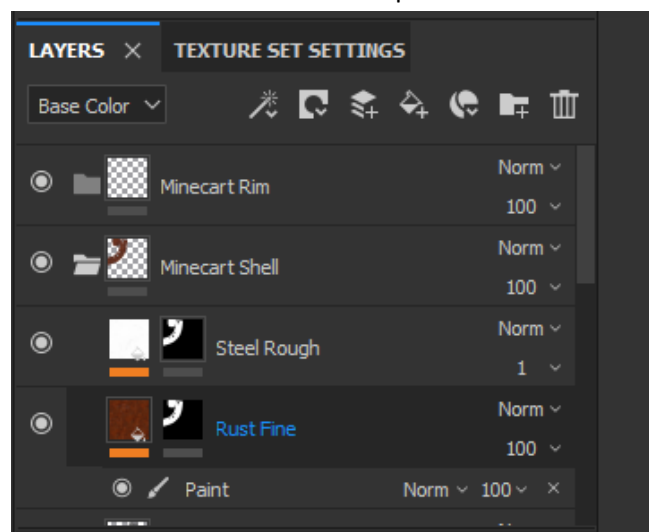


Figure 36

I found a few tedious issues when painting the mine cart, as when selecting UVs, I would unknowingly select other ones which would cause textures to overlap and give some sections of the model, an unwanted look. First discovering this I would end up redoing the painting, however through iterations of the process I found out I could deselect UVs by changing the colour from white to black (figure 37). Also, when zooming in and out of some areas, my camera angle would get stuck and fixed to a certain position, however I managed to get over this by constant use of the camera navigation controls.

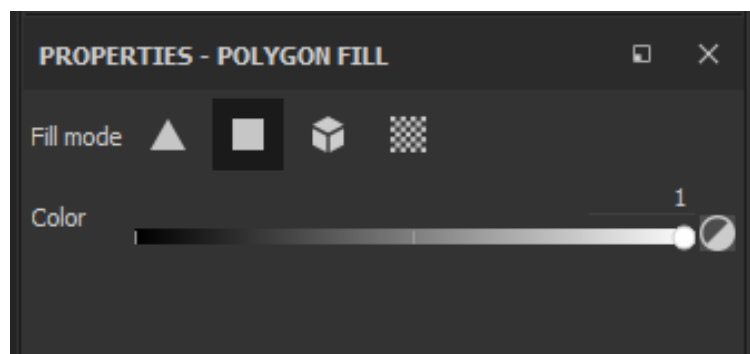


Figure 37

8th Mar:

Today I worked on painting the Hover Bike, however when importing the file into Substance Painter, the axis was wrong and the UVs were not laid out properly (figure 38), this set back my workflow for today's session, so I decided to work on the mine cart painting while the UVs were being fixed.

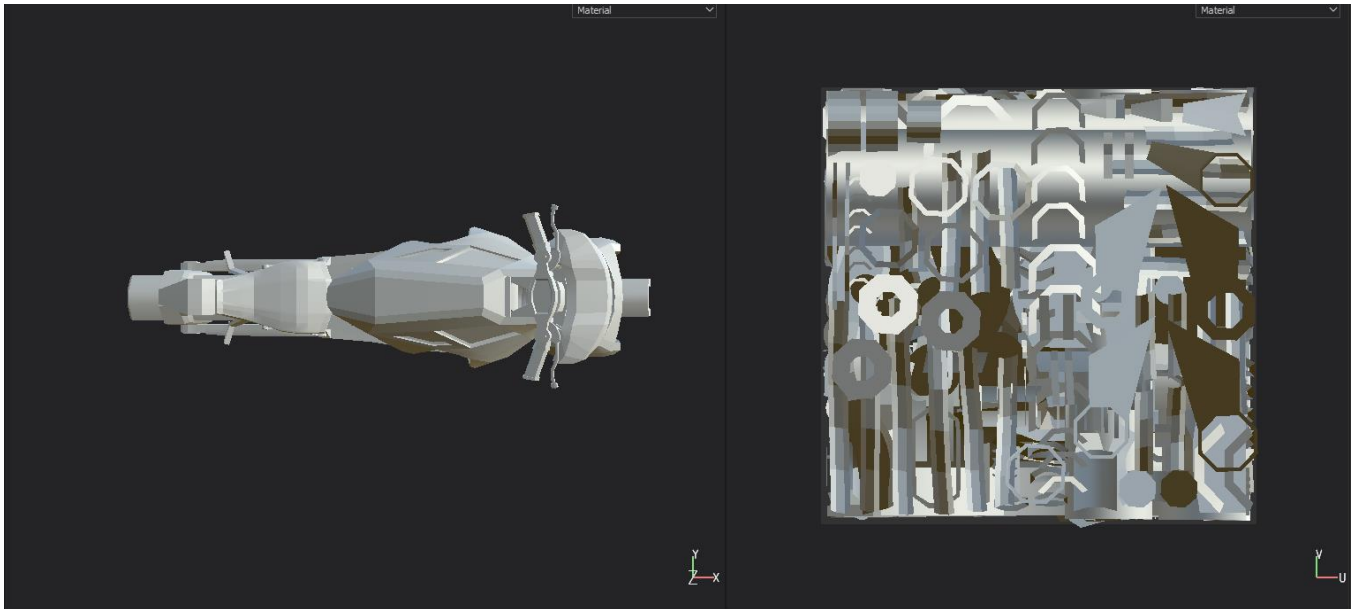


Figure 38

I split the mine cart model (figure 39) into four sections, the front armour piece, the metal chassis, the rubble/rocks and the rims & connectors. I looked at image references that were placed on the shared Trello board for inspiration for the textures, the rust effect I got was challenging to make as I had to blend two different textures together by lowering the opacity of the layer of the rough metal I made, I also added a paint layer to the texture itself allowing me to minimise the space on the size making it look neat, also this allows me to access hand drawn textures to their corresponding layers, this can be seen in figure 40.

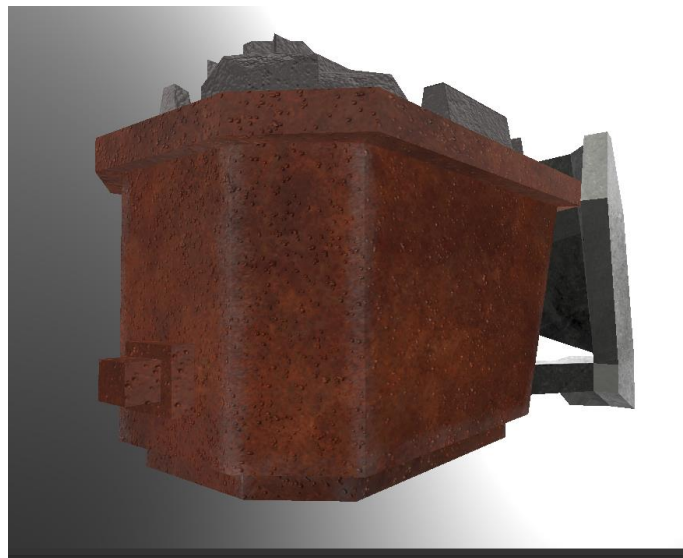


Figure 39



Figure 40

7TH WEEK (11TH MAR – 17TH MAR):

11th March:

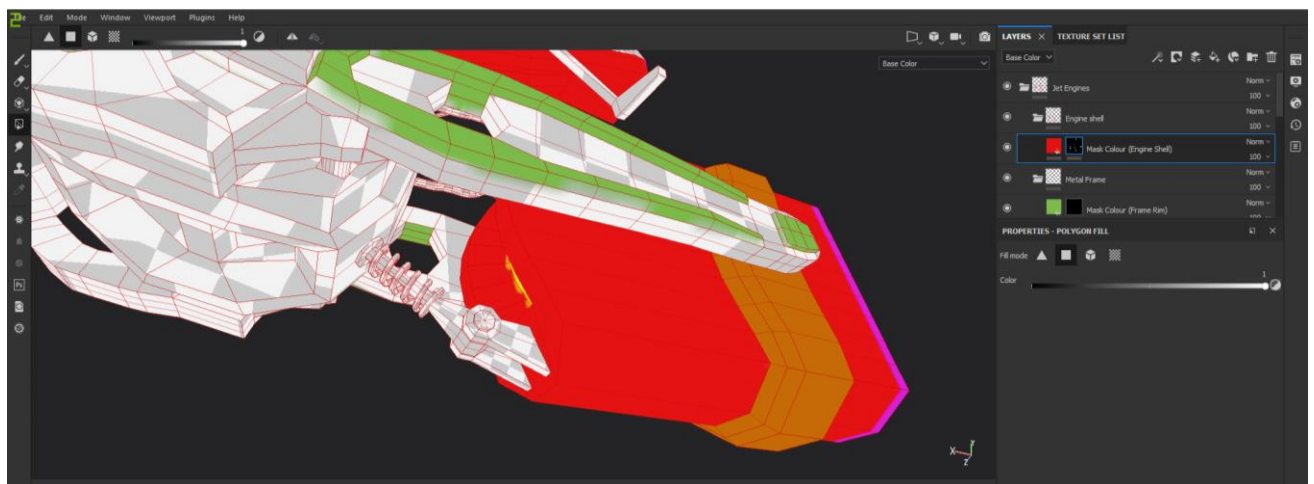


Figure 41

I worked on masking sections of the Bike (figure 41), mainly the jet engines that can be located at the front and the back of the hover bike, using layers and colour coordination to determine multiple sections of the model that are going to be a different texture. I found using multiple colours was a good way to keep track on where I have masked out certain faces. However due to the number of UVs, I found it hard to select faces without selecting others, even when using the UV unwrap.

12th March:

I continued to work on the masking of the bike (figure 42) as the process is taking longer than I imagined. I masked out the chassis of the bike, the frame and the engines found underneath the chassis. I found this extremely difficult to do because most of the faces were so close to one another, making it tedious when I am selecting faces and then selecting others in the process. The 2D UV view is unusable because of how many times the model has been cut within Maya.

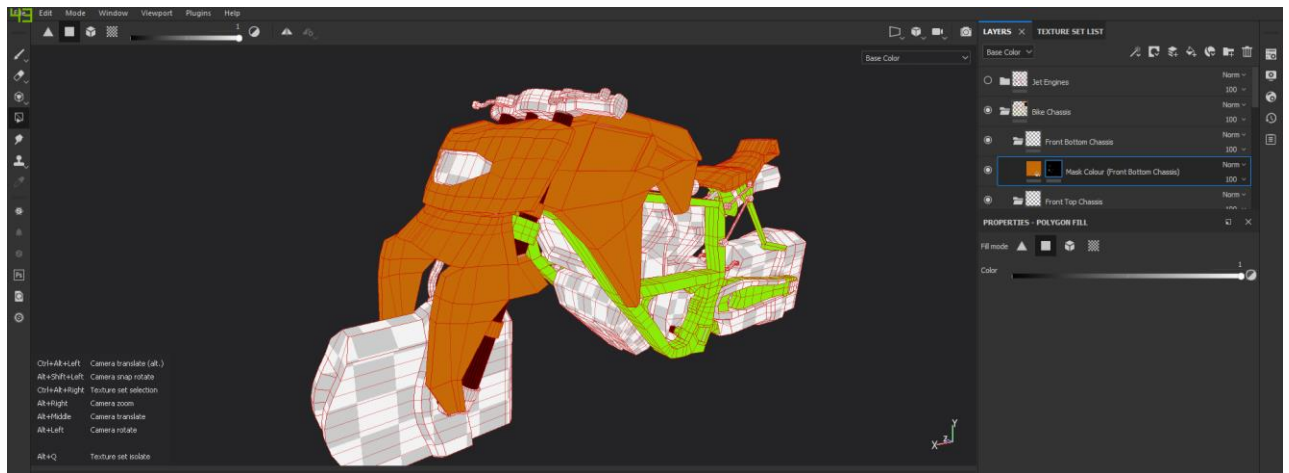


Figure 42

15th March:

I continued to mask out the bike still, was hoping to finish this before the weekend so I may start texturing the bike properly, however the number of UVs that are on the model were unexpected and has forced me to take even more time on it. I must talk to our modeller about the UVs on future models/assets so that this problem will not re-occur, as of right now I am not bottlenecking anyone however if this problem does not get fixed, it could cause a sheer halt in the production of the team's work.

I masked out the engines under the chassis as well as the piping and other small parts that can be found underneath (figure 43), I found this challenging to do, due to the same reason as the other sections of the bike.



Figure 43

16th March:

I finally began to paint out the bike, I looked at some reference images online to help with the colours and textures, after doing this I began to paint the bike out the best of my abilities, making sure that I kept to the right material/texture for different sections. I made a start on getting the basic colours down for the Chassis as well as the jet engines. I also began to work on the leather sections of the bike, the handle bar grips and the seat itself.

When texturing the grips and seat (figure 44), I wanted to apply a leather texture to it, to give the bike an authentic look and feel, even though the bike is futuristic in design and the way it moves, giving the bike a leather seat and leather handlebars I believe achieves the antiquity I desire. However I could not give it the look I wanted as the texture came out very pixelated and appears un-rendered, I think is due to the model being way to high poly making it difficult to texture, as I am finding out that in some areas textures begin to overlap on other surfaces located on the model.



Figure 44

Overall with this section of the bike I found it incredibly hard to texture due to the complexity of the model and the sheer amount of faces with it, looking at the model more closely there are so many unnecessary faces and sections that are added to it including faces that are not even seen by the player and can be easily deleted to decrease the poly count. However, I am happy with how it is looking so far (figure 45)



Figure 45

I also redid my Gantt Chart (figure 46) so that the team will be able to see what my workflow is going to be like for the rest of the term. This is due to be updated over time as I progress with my work.

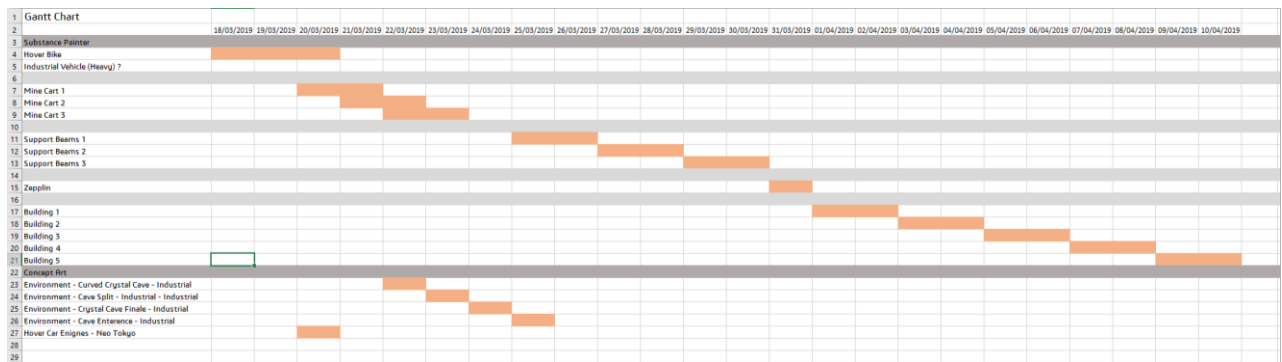


Figure 46

8TH WEEK (18TH MAR – 24TH MAR):

18th March:

I found out today when checking the orientation of the models that the bike is on the wrong axis, meaning the work that I've been doing over the past week has been almost completely useless. The bike is set to have the Y axis pointing up, when in the Unreal Engine, it is set to having Z pointing up. This is annoying to find out, however I should be able to re-mask the bike in half the time I have taken, using the UV unwrap as a template to what I need to repaint.

The only issue I found with the models other than the orientation on the bike, was the scale of them, they appear to be too small from a glance within Maya and they need to be tested within the engine so that they can be scaled correctly.

Due to further research about substance painter and exporting the files, I found out that regardless the axis the texture is still able to apply to the model in the correct manner, I tested this out myself, exporting what I have currently have within substance painter to the model with the fixed orientation.

19th March:

Today I filled in an asset list spreadsheet (figure 47 and 48) using the template Nathan made for level he is working on (Neo Tokyo), from the level design I was able to section of six areas of the track making it more knowledgeable to know what assets will be going in what areas, I've made this document accessible on the shared google drive so that team members can alter it as we progress. The asset list can be seen below:

[illegible]

Figure 47

The screenshot shows a spreadsheet application with a key and a map. The key lists four items: Harry (Orange), Matt (Red), Noah (Blue), and Pered (Green). The map is a complex layout with various colored areas and labels. The labels include: CHEROKEE, LAKE, MAG TRACK, BLAST ZONE, LOWER PATH, STEAM PUMP, FALLING TOWER, STEELACTIVES, and THREE COLLISION. The map also includes various icons like a car, a house, and a tree.

Figure 48

20th March:

Today I worked on finishing the textures on the Minecart (figure 49) I started a few weeks ago, also completing the textures on the other mine carts too. The other two minecarts were simpler than the first as I used the same layers on each one but altered the rotation of them, so they appear as if they are different. This took very little time and am pleased how fast I did this. I can now focus on the concept work which I intended to work on next week.



Figure 49

21st March:

I designed different engines for the car model which Nathan modelled, I looked at numerous resources online which gave me some valuable inspiration. I looked at retro-futuristic vehicles made by Jomar Machado (Machado, 2017) as I found they give a more mechanical, Neo-Tokyo feel, as that is the direction to which the vehicles are being modelled towards. The concept art can be seen in figures 50 and 51.

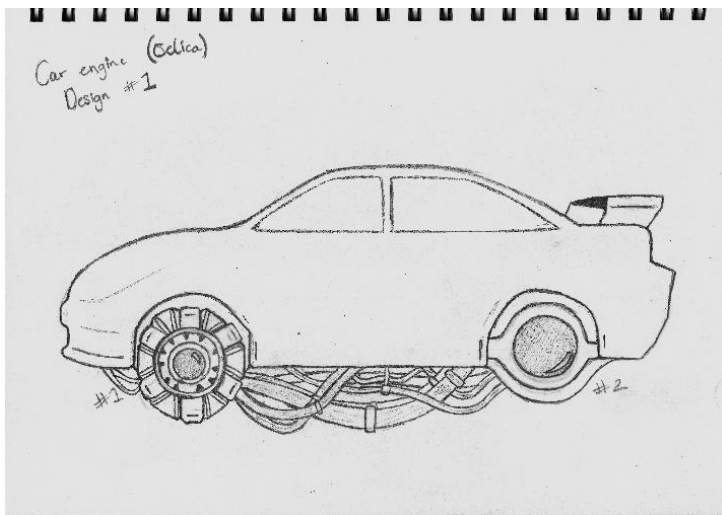


Figure 50

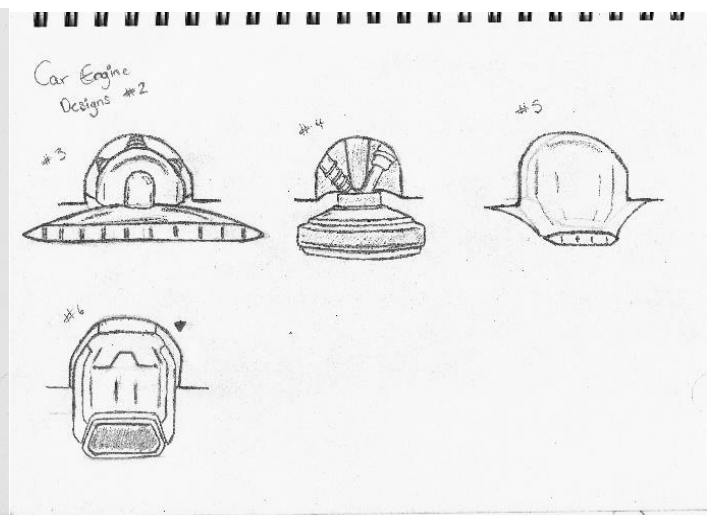


Figure 51

The reference images that I used for inspiration can be seen below in figures 52, 53, 54, 55 and 56.



Figure 52



Figure 53



Figure 54

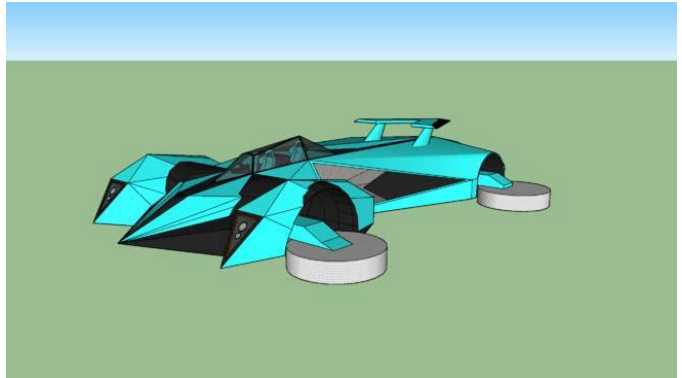


Figure 55



Figure 56

9TH WEEK (25TH MAR – 31ST MAR):

25th March:

I worked on texturing the factory building and using substance share to look at numerous materials I could use on the factory, as well as other models I will be working on later.

When browsing the substance share page (figure 57) there were numerous options to choose from and I found it difficult to select the one I felt was right. I concluded that I would use two different types of brickwork for the factory, one for the smoke stacks, and the other for the foundation itself.

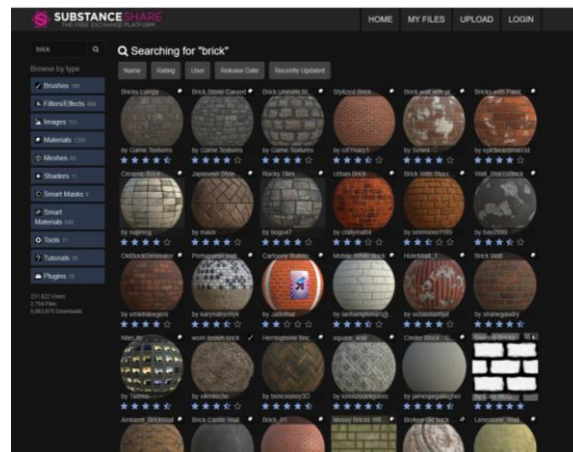


Figure 57

When texturing the smokestacks on the factory (figure 58 and 59), I downloaded from the substance share page, I had an issue with orientation as some faces were displaying the brickwork the wrong way, I'm not sure whether this is due to the individual smoke stacks when being modelled were on the wrong axis, but regardless if they were this is a simple fix that I can do within substance painter, all I needed to do was create a new layer for only the surfaces which the orientation was off and then rotate the texture to make it aligned with the other brickwork layer.

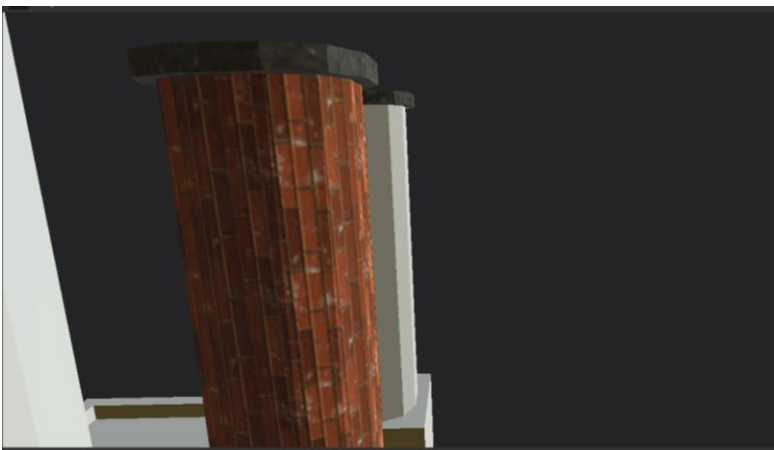


Figure 58



Figure 59

26th March:

I textured another building model (figure 60) as well as do more research into Substance Share for smart materials and other textures I may use within the models.

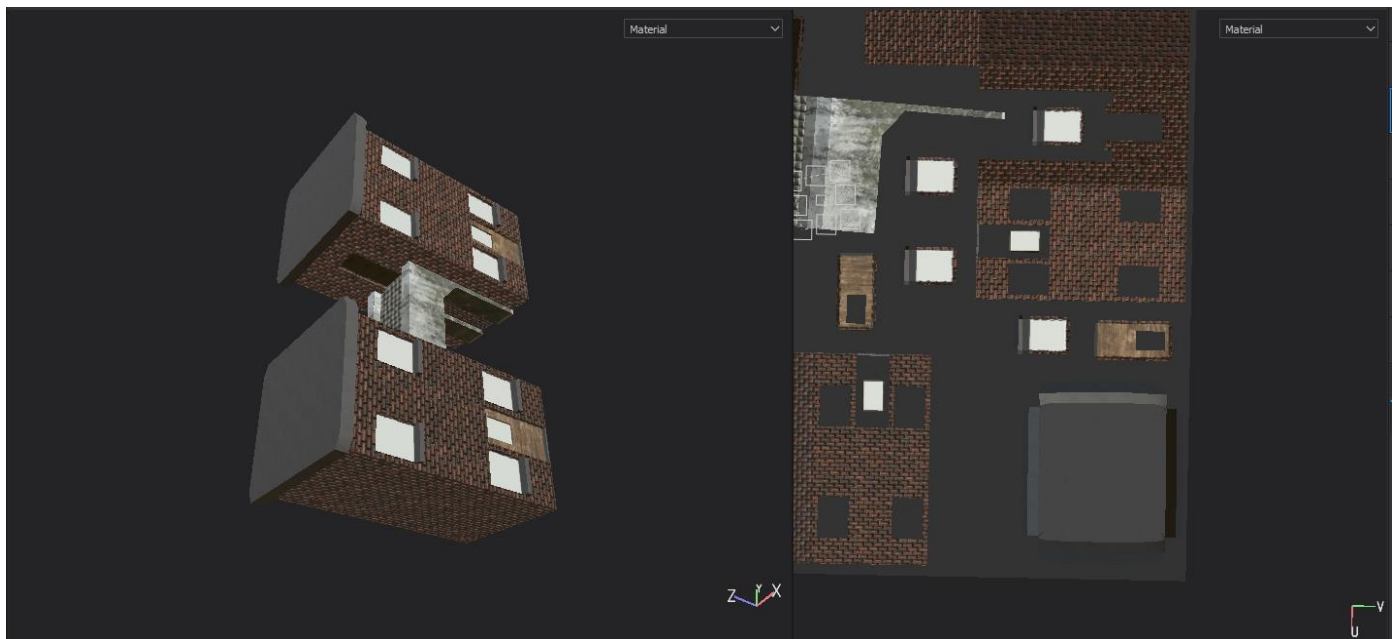


Figure 60

28th March:

While looking at the bike model and texture I had been working on so far, I noticed that there was an N-gone on the spring section of the bike, this is a huge problem as now I must restart my texturing on the bike, that I have worked on for more than over a week, I wouldn't have thought to check the model myself for any N-gones as I had trust in my modeller, now I must check the other models I have textured to make sure that I do not have to redo them. Looking over the UV's of the Mine Carts I can make clear that there are no known N-gones visible, meaning I will not have to redo those textures as well.

I continued to work on the textures for the Factory Building (figure 61) I began with now adding the textures for the roof and the foundation of the factory itself, I used the material Old_Brick_Wall which allowed me to change certain variables of the texture itself, for example I was able to change the amount of cement in between each brick, the amount of dirt of the bricks and the sizing of the bricks.

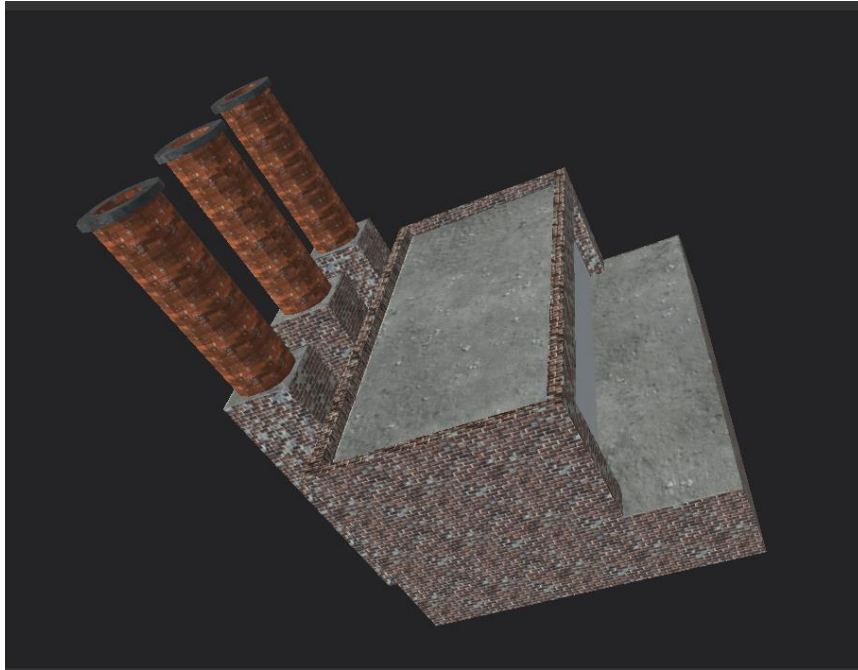


Figure 61

For the rest of the day I organised my files on both USBs that I own, I have one for all my Photoshop work as well as my Substance, the other is for my other modules and has my previous work from the first semester, and first year. Sorting out my files took most of the evening I had as I found out I had numerous copies of the same files scattered around and some of them were misplaced and confusing to find if someone else were to use it.

29th March:

I worked on remodelling the bike, however before I could do that, I needed to smooth some of the verts on the model itself as before I found the chassis of the bike to look rather ugly even though the model itself is highly detailed. I took screenshots (figures 62 and 63) to help find what edges I need to smooth within Maya. I would ask our modeller to do this however he has not been in many lectures during the week meaning it is hard to get in contact with him.

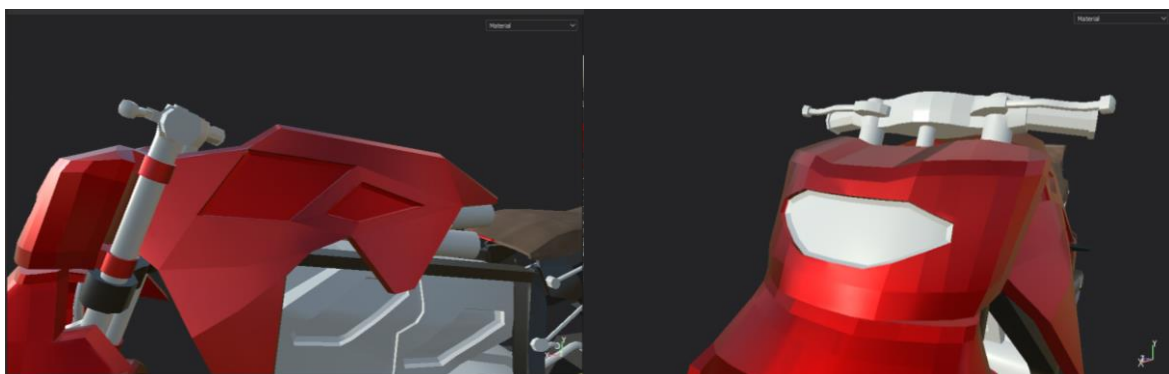


Figure 62

Figure 63

10TH WEEK (1ST APR – 7TH APR):

1st April:

Today we had a team meeting before we began to break up for the Easter holiday, we spoke about what assets we currently have, such as the blimp, the hover bike, mine carts, etc. Also discussing whether we will need any more assets made and textured.

We concluded that we need train track assets which is already being worked on today, so they should be completed by tomorrow, we spoke about everyone's current workload and spoke about any problems anyone is facing. There weren't any current problems which were good to know about and everyone has work to be getting on with so there is no bottlenecking being held.

5th April:

Today was the final day we would be seeing each other as a team before we break up for the Easter holidays, as a group we came together and spoke about what work remains to be done during the holidays, however during this meeting our modeller Pered did not attend and there was no reason given by him, we continued with the meeting anyway.

During the meeting we spoke to our lecturer about Pered's models and how the poly count on them are too high for industry standards, and the difficulty we've been having with the models themselves, personally I think the models look good, however considering the amount of faces/polys they have, they are very hard to work with, as I have previously mentioned when painting the hover Bike.

When speaking to our level designer Jason Broome, he said he would like to paint some assets as well, so we split up the list of assets I was meant to paint myself into two, I kept the Hover Bike as well as the buildings and metal silos/pillars and he took the rest of the assets. I plan on texturing the rest of the assets during the time I have in the holidays, I will be making room to do other assignments however, meaning that my workload will be pushed back until I am happy with the condition of the other assignments.

11TH WEEK (8TH APR – 14TH APR):

During this week I took the time off to work on my other assignments I had due after the Easter break, these were my two essays where one I have to write a GDD for my own game, and the second is for another module, World Building where I have to write an essay related to my dissertation.

This affects my work load towards the development of the game, and during this week I have not yet completed both essays, meaning during next week I must continue to work on them and hopefully come to an end with at least one by the final week of the break.

However, during the final week, I will be working on the game as well getting all the textures I have made together, assuring that they are looking the way I want them to be and making sure they fit into the environment as they should.

12TH WEEK (15TH APR – 21ST APR):

18th April:

Before I left for a holiday away from my work I looked over the textures that I have already made, assuring that they were how I wanted to them to appear as well as making sure that they fit into the environment, I looked at the falling tower textures as well as the minecart textures I had completed, from inspection they are looking good and up to the standards I expect. Now all I must do is to export these files and continue to work on them next week or if it comes to it on the week, we come back from the Easter break (3rd semester).

13TH WEEK (22ND APR – 28TH APR):

This week I continued to do work on my other assignments, not allowing myself to do any work towards the industrial level, no progress to be added but I did prepare myself ready for next week making sure that all of the assets that I know need to be textures I have on hand to start and finish texturing.

14TH WEEK (29TH APR – 5TH MAY):

29th April:

Today I began to work on and finish the remaining assets I had to put on hold over the Easter break due to other written assignments. However, I got told today by the unreal team, Matt, Connor and Nathan that all textures must be ready by Wednesday the 1st for compiling the game together as one. This I was not expecting and had thought I had a little bit more time to complete the textures.

I began on working on the most important asset first which was the hover bike, I wish I finished this at an earlier date as I had to rush the final texture for it, however because of my previous experience with the model, texturing was not as troublesome, but still tedious to work on as I found out during the texturing phase that some of the UVs were overlapped, another problem to add to the list, I have no idea how this has happened since the UVs before were fine, even though the UVs were cut too small to begin with and would have taken too long to fix. The UV issue I had can be seen in figure 64.

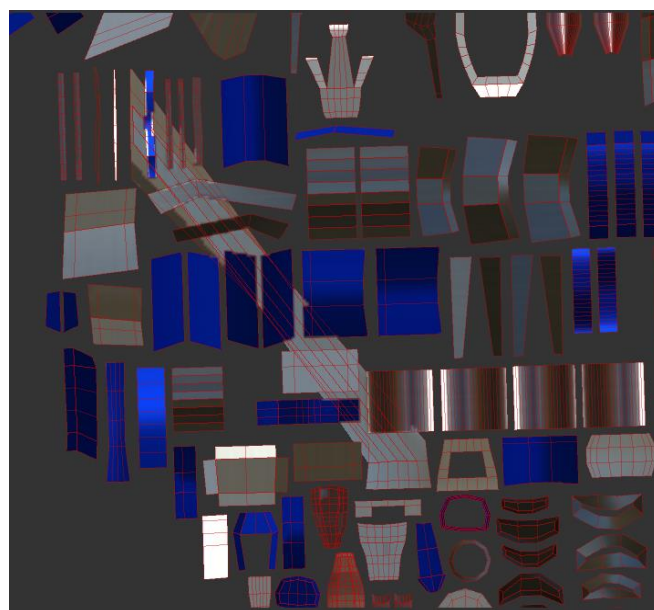


Figure 64

The hoverbike I was able to split into three main categories, the Chassis, Framework and the miscellaneous sections such as the seat, handlebars and front mirror. When texturing the chassis my main idea was to have it blood red with a silver frame as I see these colours to complement each other very well, however when in the process of texturing, the other texture artist Mitchell informed me that I cannot use the colour red for the chassis as he has used it on his vehicle, the hover car. This was a simple fix, but I couldn't help but to feel annoyed about the matter as I had a great vision on what the bike would look like, the blame is also on my half for not communicating to him about the colour scheme I had chosen, the same can be said with him. The final texture can be seen in figure 65.

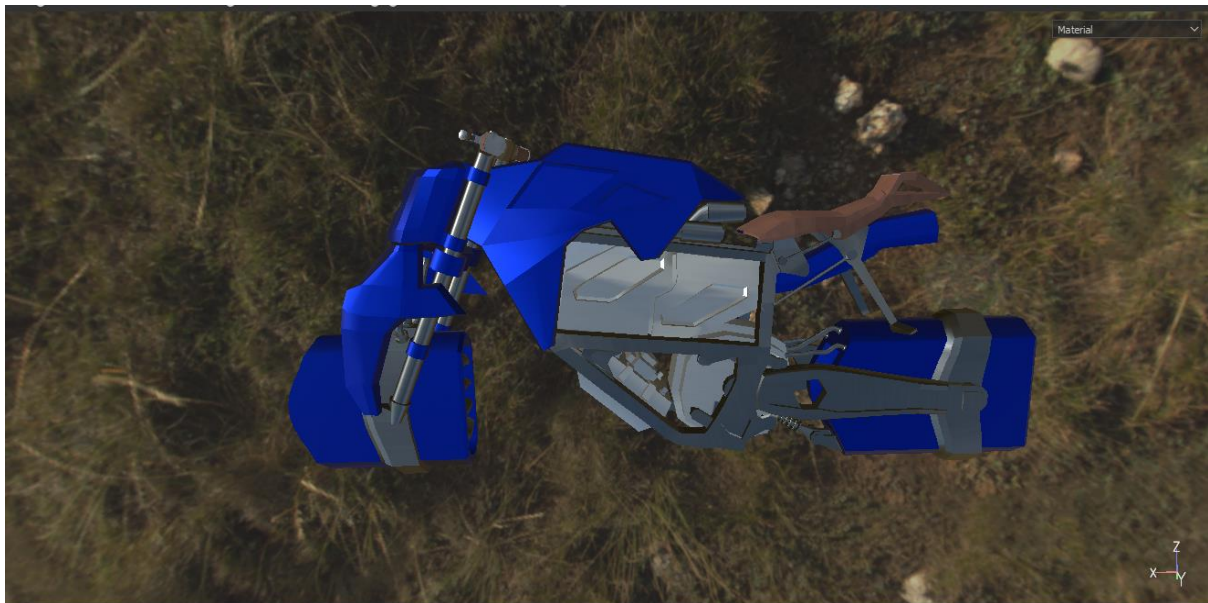


Figure 65

Once I had completed the hover bike I began to complete the textures of the buildings that were going to be present in the level, from looking at the level layout that Matt our unreal engine team member had made I was able to see some other modelled buildings were added without myself knowing, this is a communication flaw that has been made by our modeller as I did not know that he had modelled new buildings and had added them to shared drive. I textured these buildings anyway, using the same methods I had done on the previous buildings/factories.

After I had textured the buildings, I began to check all my textures to make sure that there were no errors on the texture themselves, as in they are how I want them to look. Now that I am happy with the textures, I have made I began to export them ready for Matt to import them into the engine and attach them to the correct models. When exporting I made sure that the file was configured to the setting Unreal Engine 4 (Packed) as the file needs to be formatted correctly, this can be seen in figure 66.

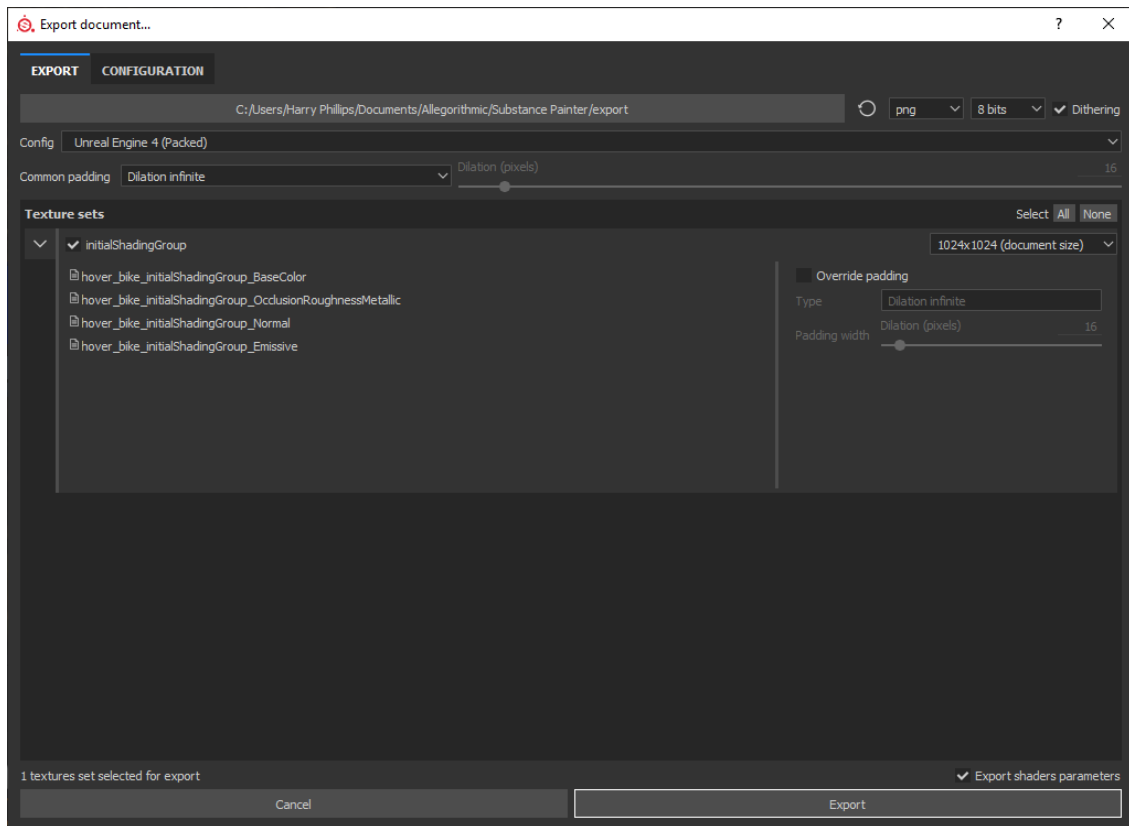


Figure 65

4th April:

Today I got given the task of creating a controller map (figure 66) for Neo Drive so when new players of the game get confused or are unsure with what the controls do, it would inform them about each key bind. I made the diagram with an online website called LucidCharts, it allows me to great diagrams with many tools such as text boxes with the option of connecting them together with arrows and lines, with the option to snapping to a grid. When making the chart I allowed for there to be extra spacing around the diagram for any more key binds that we may decide to add in the future.

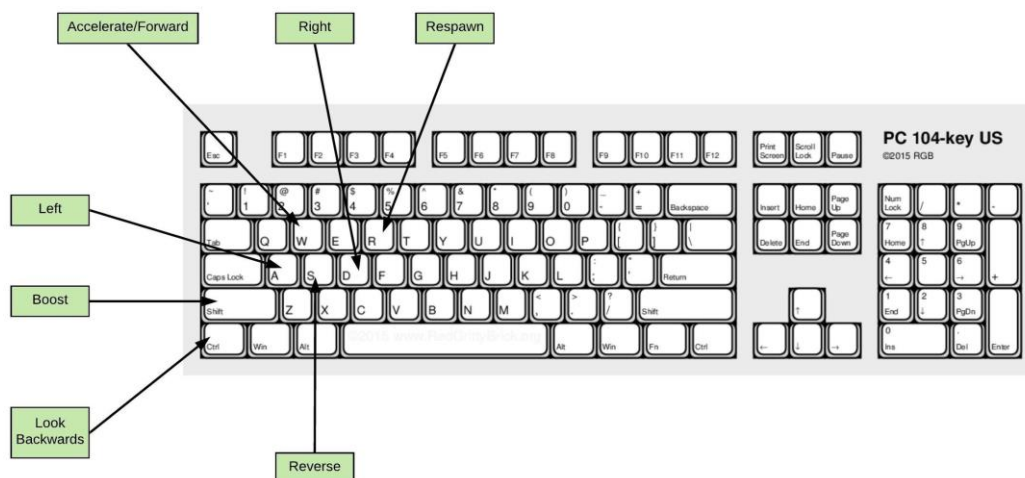


Figure 66

15TH WEEK (6TH MAY – 12TH MAY):

8th May:

I had no intention of doing any more work towards Neo Drive as i believed that all of the textures were done/completed, however when Matt was importing the textures today even though they should have been imported and tested earlier, he noticed that one or two textures were missing for some assets, one of them being the falling tower which acts as a hazard in our level, so today I textured this asset. This again is a communication error within our team, especially between the modeller and myself as I did not ask Pered which models are going to be used in the game as well as him not informing me where the models were uploaded on the Google Drive.

I found it difficult to find the models due to the unorganised filing system on the Google Drive, during the development of the game more and more files have been added causing confusion and numerous misplacements of files and documents. The textured tower can be seen below in figure 67.



Figure 67

CONCLUSION:

Looking back over my workload and the amount of work that I produced during the semester, I believe I produced enough to contribute to the development and final outcome of Neo Drive, are a few things that I need to improve on, such as my time managing skills, I do have enough time to complete all of the tasks I got enlisted with, however I did not manage them to the best of my abilities, I should have used my Gantt Chart more often than I did, I should have updated it every week and kept referring to it every time I was unsure on what to do. I am pleased with my progression with the use of Substance Painter and thoroughly enjoyed texturing, however the models I received from Pered, especially the hoverbike were too complex and poorly modelled due to the number of vertices and faces that were clearly visible to anyone.

I plan to continue to develop my substance painter skills over the course of the final semester as well as the summer holidays, I will get models from online as they are more reliable to be modelled to a professional fashion and I will have no issues with UVs being overlapped as well as there being a

ridiculous amount of them. I already have one model ready that I got from the Substance Share website, it can be seen below in figure 68.



Figure 68

I also plan to enhance my concepting skills during the course of the holidays as I have spoken to Connor, Jordan and Nathan about being a team for the third year and working on one of our projects we submitted as a GDD not so long ago, if this does happen I plan to do concept art for the game and practice Substance Painter ready for when textures need to be applied.

BIBLIOGRAPHY:

About Signs Limited. (2019). *The Future of Signs - About Signs Limited*. [online] Available at: <https://www.aboutsigns.ca/the-future-of-signs/> [Accessed 25 Jan. 2019].

Academy.allegorithmic.com. (2019). *The PBR Guide - Part 1 on Substance Academy*. [online] Available at: <https://academy.allegorithmic.com/courses/the-pbr-guide-part-1> [Accessed 3 Mar. 2019].

Allegorithmic.com. (2019). [online] Available at: https://www.allegorithmic.com/system/files/software/download/build/PBR_Guide_Vol.1.pdf [Accessed 2 Mar. 2019].

Commons.wikimedia.org. (2019). *File: Breendonk minecarts - panoramio.jpg - Wikimedia Commons*. [online] Available at: https://commons.wikimedia.org/wiki/File:Breendonk_minecarts_-_panoramio.jpg [Accessed 24 Jan. 2019].

Donkey Kong Wiki. (2019). *Mine Cart*. [online] Available at: https://donkeykong.fandom.com/wiki/Mine_Cart [Accessed 24 Jan. 2019].

Flickr. (2019). *Mine Carts*. [online] Available at: <https://www.flickr.com/photos/coastermadmatt/26076435244> [Accessed 24 Jan. 2019].

Flickr. (2019). *Vintage Reproduction Neon Sign "Martini Girl"*. [online] Available at: <https://www.flickr.com/photos/houseofneon/4498682253/> [Accessed 25 Jan. 2019].

La boîte verte. (2019). *Le néo Hong Kong baigné dans les néons*. [online] Available at: <http://www.laboiteverte.fr/neo-hong-kong-baigne-neons/> [Accessed 25 Jan. 2019].

Machado, J. (2017). *Jomar Machado*. [online] ARTSTATION. Available at: <https://machadoj.artstation.com/> [Accessed 21 Mar. 2019].

Media, F., Media, F. and profile, V. (2019). *Flying Car and Hover Car*. [online] Flyinghouseproject.blogspot.com. Available at: <http://flyinghouseproject.blogspot.com/2014/05/flying-cars-and-hover-cars.html> [Accessed 21 Mar. 2019].

Pinterest. (2019). *Pin by Robert Thompson on Mine carts | Pinterest | Mine cart, Coal mining and Cart*. [online] Available at: <https://www.pinterest.co.uk/pin/335870084695195680/> [Accessed 24 Jan. 2019].

Pinterest. (2019). *Pin by Robert Thompson on Mine carts in 2019 | Pinterest | Gold, Mine cart and Gold miners*. [online] Available at: <https://www.pinterest.co.uk/pin/335870084706544509/> [Accessed 24 Jan. 2019].

Reaper. (2014). Hexage.

SWTOR Strongholds. (2019). *Flag: Republic Hologram*. [online] Available at: <https://swtorstrongholds.com/flag-republic-hologram/> [Accessed 25 Jan. 2019].

T., S. (2019). *Futuristic Hover Car | 3D Warehouse*. [online] 3dwarehouse.sketchup.com. Available at: <https://3dwarehouse.sketchup.com/model/ebce9072-d4ee-4896-a82b-905ac9a313d7/Futuristic-Hover-Car> [Accessed 21 Mar. 2019].

Tord.mmo-fashion.com. (2019). *TOR Decorating / Czerka Logo Hologram (SWTOR)*. [online] Available at: <https://tord.mmo-fashion.com/czerka-logo-hologram/> [Accessed 25 Jan. 2019].

Trello.com. (2019). *Trello Board, Industrial Team Semester 2*. [online] Available at: <https://trello.com/b/CvJUsFoC/semester-2-team> [Accessed 28 Jan 2019].

Uncrate.com. (2019). *Retro Futuristic Vehicles*. [online] Available at: <https://uncrate.com/retro-futuristic-vehicles/> [Accessed 21 Mar. 2019].

Unity Forum. (2019). --- *Holographic Signs* ---. [online] Available at: <https://forum.unity.com/threads/holographic-signs.156705/> [Accessed 25 Jan. 2019].

YouTube. (2019). *Basics of Substance Painter*. [online] Available at: <https://www.youtube.com/watch?v=Lv-ed9V0dE4> [Accessed 2 Mar. 2019].

YouTube. (2019). *Substance Painter Layers and Masks*. [online] Available at: <https://www.youtube.com/watch?v=4AKqBE3BUi0> [Accessed 24 Feb. 2019].