

Nuke project

Initial Idea

the initial idea for this project is to create a scene similar to the end of daft punk where the robots destroy themselves in the desert however the part I want to create is where the silver robots head gets reactivated after being in the desert for a long time showing signs of rust.



for the robots head I used an asset I found on scetchfab which was perfect for the scene I wanted to create
<https://sketchfab.com>



The start of the scene is just ment to be a destert with a sandstorm slowly starting to blow through



for a couple seconds after the scene starts a sandstorm will cover the camera blocking the view of the desert



as the sandstorm passes over the head of the robot gets uncovered



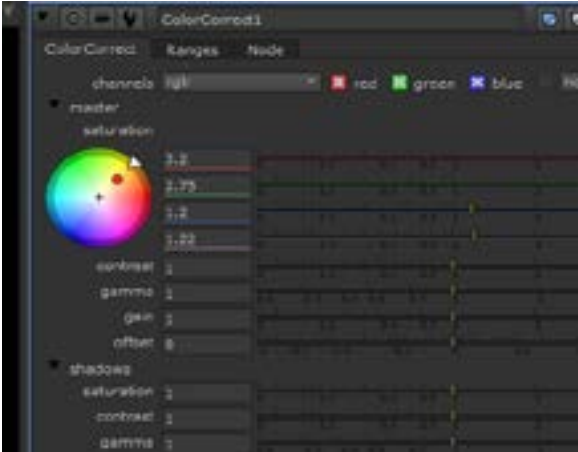
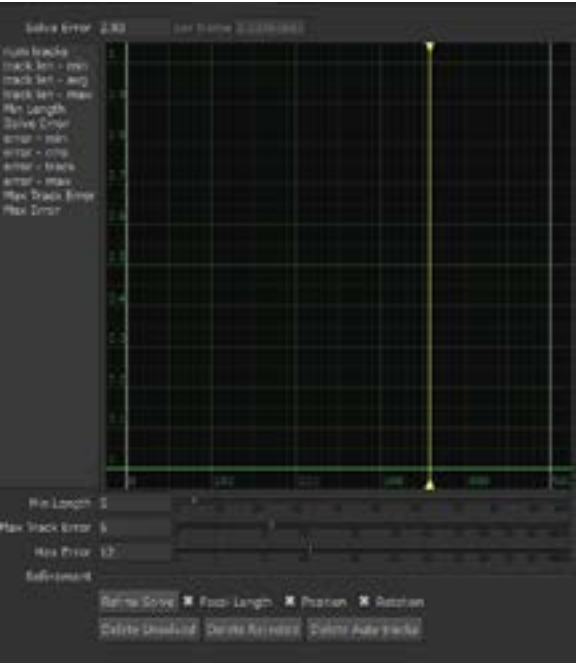
once the head has been completly uncovered the camera will zoom into the head slowly



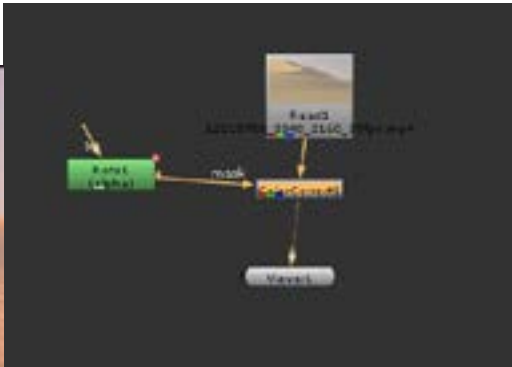
untill eventually the camera gets close enough to the robot to be able to see it power on then cutting to black

The first couple of attempts of creating this scene all ended in the same spot. Which was trying to connect nuke to maya to allow me to place the 3d model within the scene. the main issue with it was due to my inexperience within nuke. making mistakes that where small like not correcting enough errors with the trackers or just not following a tutorial correctly which would result in some part of the scene braking later.

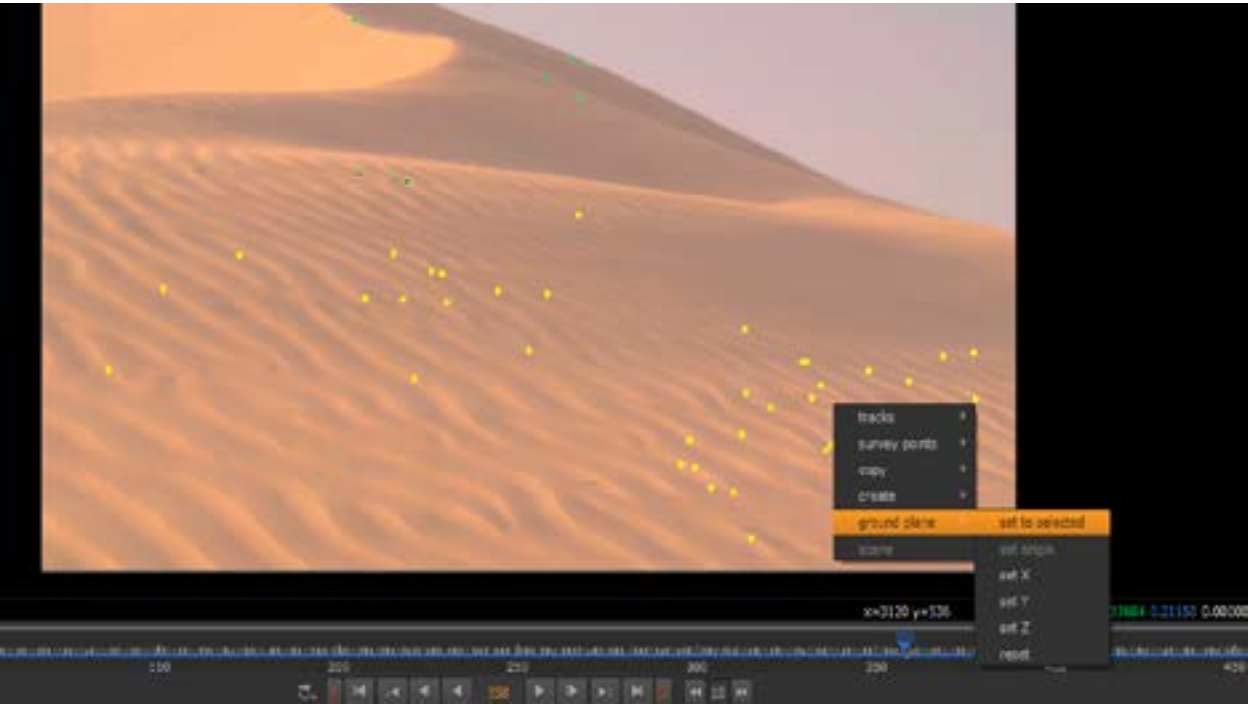
eventually I found out how to correct a lot of the tracking errors however I could never get the errors below 2.50 which would always create issues later with a little sliding



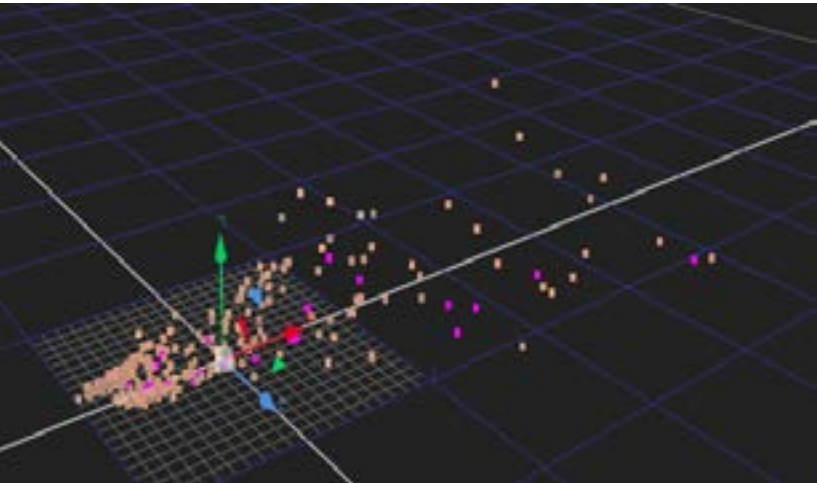
The sand in the desert plate I was using was a little too yellow for the kind of scene I wanted to create so using the colour correct tool along with the roto node I could alter it to make it a little darker and closer to dusk



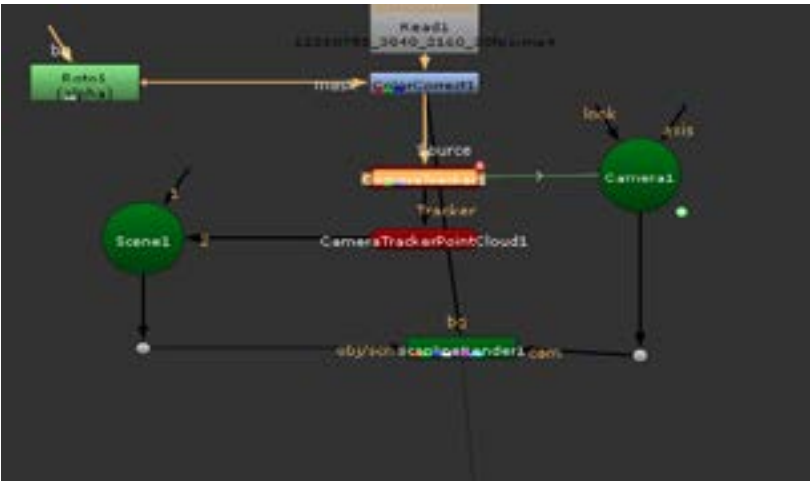
once I had the plate the way I wanted it I just had to track the camera within the scene. at this point I would be getting many errors mostly with too many tracking errors which im still not sure what caused but eventually I just went with what I had an error of 2.93 which was way higher than I wanted but after multiple attempts to get it lower I had to move on.



Once I moved on from creating trackers I was able to set the ground plate pretty easy and quickly which allowed me to see the scene from a 3d perspective as well as make sure none of the tracking points were under the 3D base plate



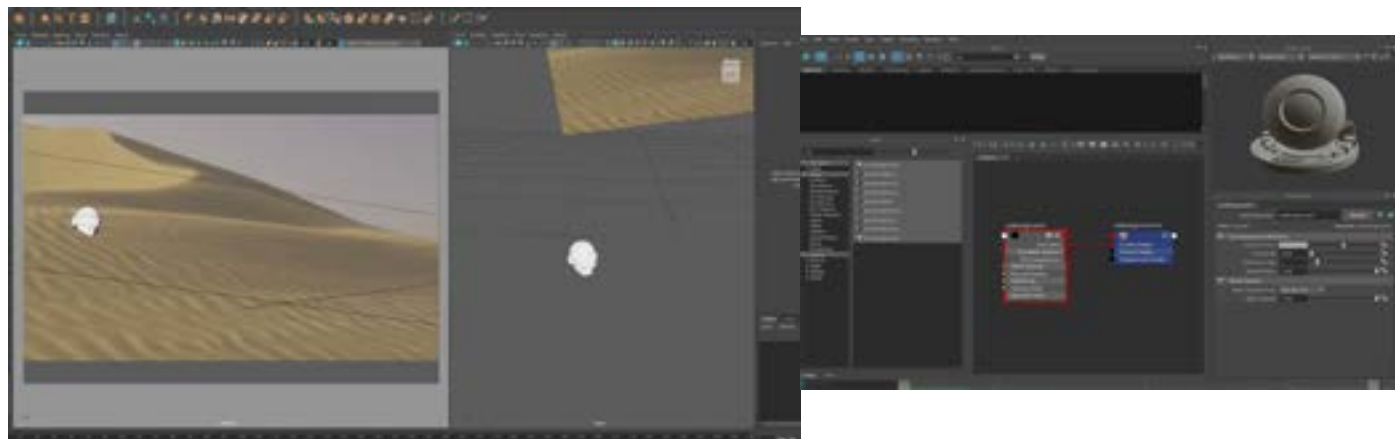
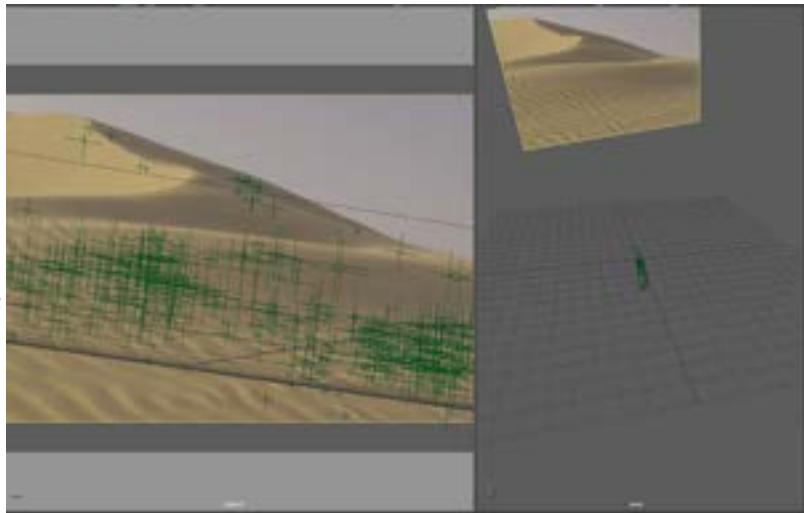
once I was happy with the trackers postions I was able to add a scanline render which is what lets me use a cameras perspective for my models and trackers put in the 3D space.



After I added the scanline render I had to export the tracking data in a format maya could use so I used a node called a WriteGeo which allowed me to export the camera and tracking data as an fbx file however once I started to export many problems started to show up.

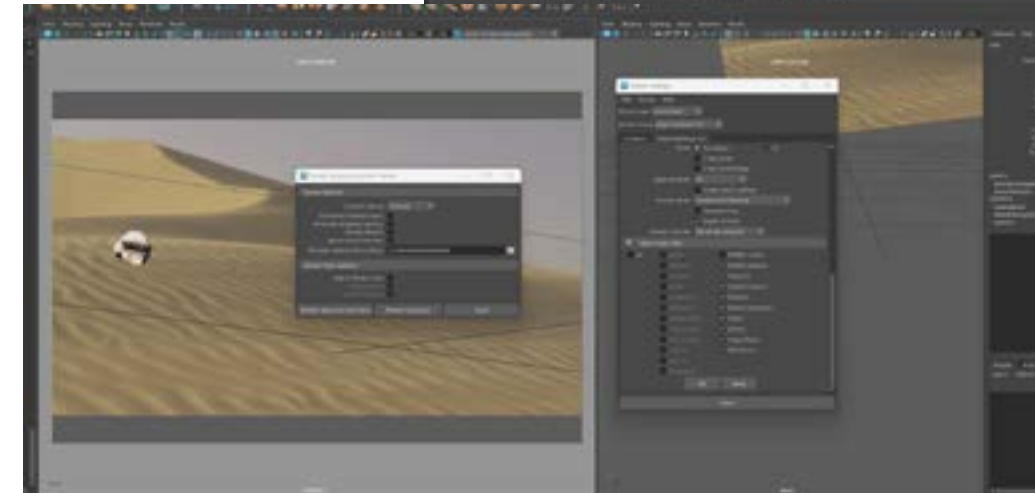
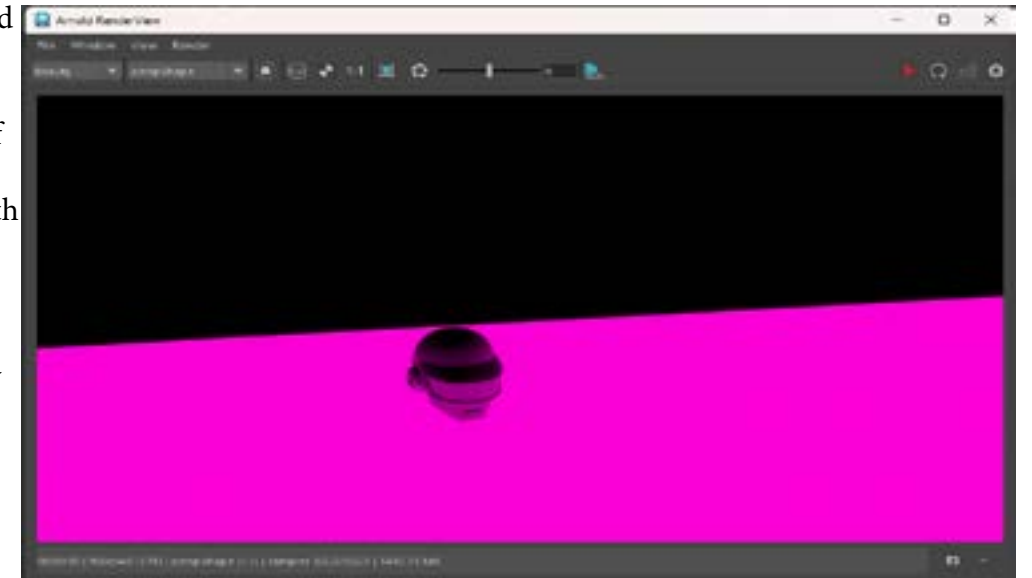


the file exporting process took a while due to many tutorials using very different file formats depending on the version of maya they used which ended up causing a lot of confusion towards how I was meant to add the file however after an hour of trying different things simply adding .fbx to the end of the file name I was able to import the camera data into maya which then allowed me to add an image plane to the camera with the scene.



once I got the tracking/camera data into the scene I was able to add a plane and line it up with the desert which helped me to line the helmet up a little better than without it and using a material I could hide the plane from the camera without hiding it from the scene so I could still make adjustments without issue

once the helmet was positioned in the right spot all that was left was to add lighting and render which took a couple of attempts to get right most of the renders came out pink with no background due to poor lighting or the wrong render mode what ended up working at the end was using maya hardware to render the scene



However right at the end I had to switch back to arnold due to issues with maya hardware so the robot helmet came out black not exactly what I wanted but with the amount of issues I came across due to inexperience with the software I'm happy that it worked to begin with next time I'll have to spend more time familiarizing myself with the software nodes to create something like this faster and easier



This is every video tutorial I used for the project I had a pretty set idea from the start so I ended up going straight into it which in hindsight I should have done more research going into it.

https://www.youtube.com/watch?v=WpJD_i4X8A

https://www.youtube.com/watch?v=RL51x9_qhSI

https://www.youtube.com/watch?v=rXLj_eK2fWE

<https://www.youtube.com/watch?v=n4V9sqfvXkQ>

<https://forums.autodesk.com/t5/maya-shading-lighting-and/pink-material-in-render-arnold/td-p/6854114>