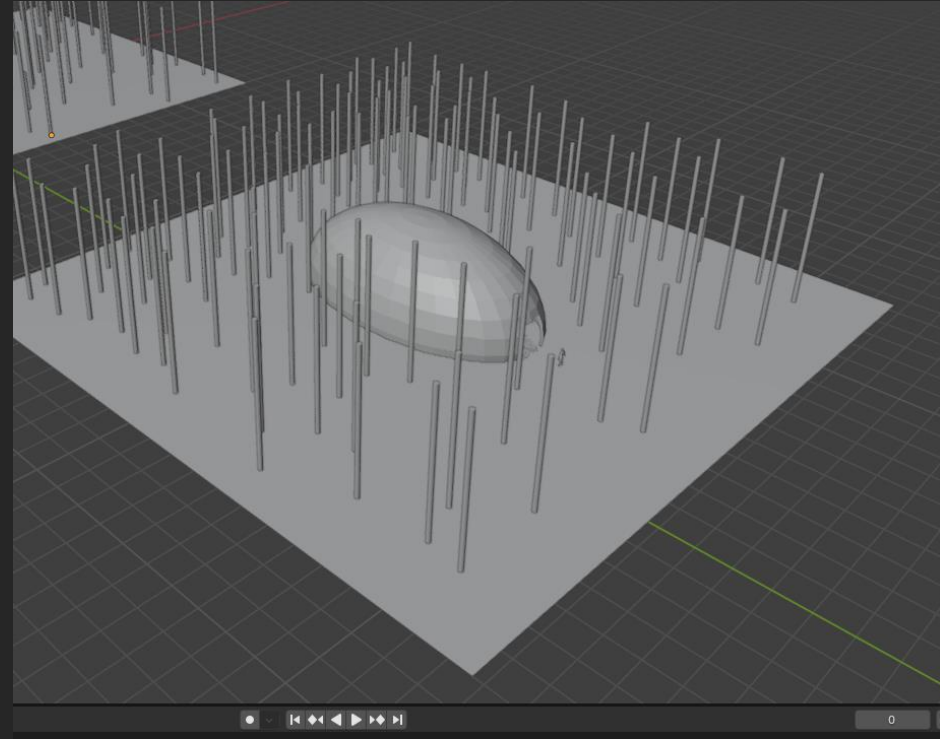
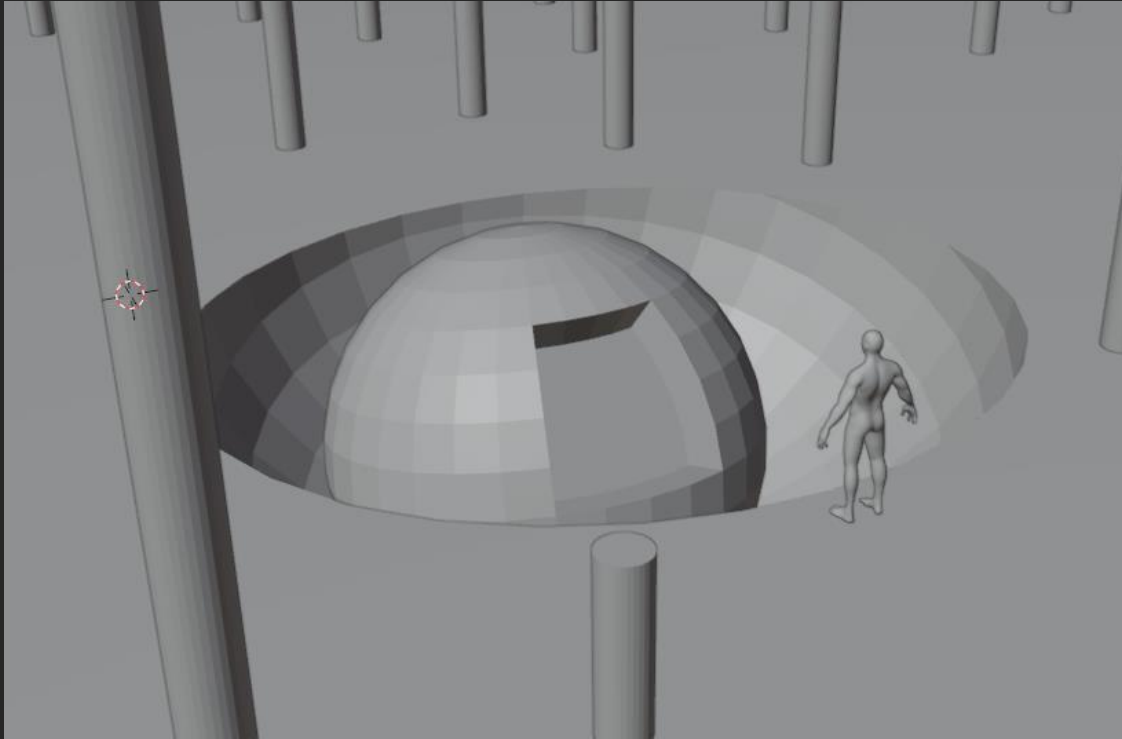


Horror In The Woods

- Horror Sci-fi Theme
- Set in a forest with a crashed spaceship
- Set in present time

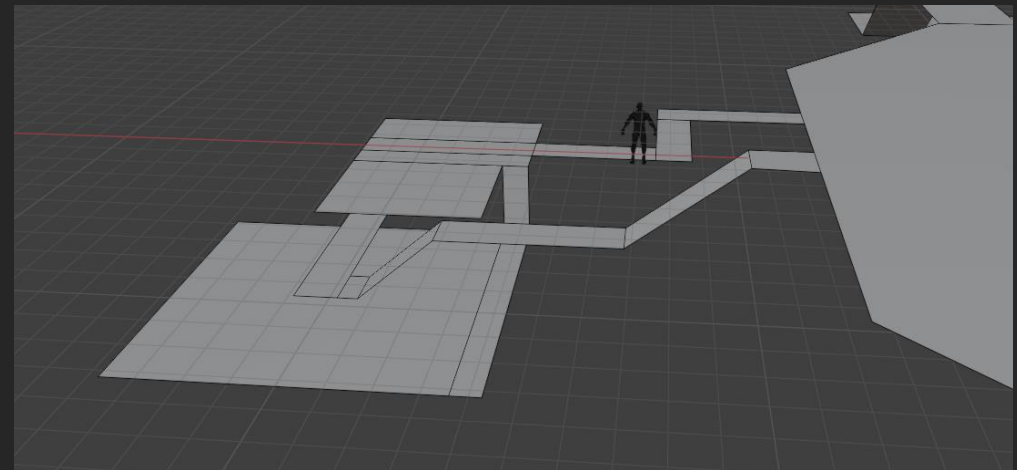
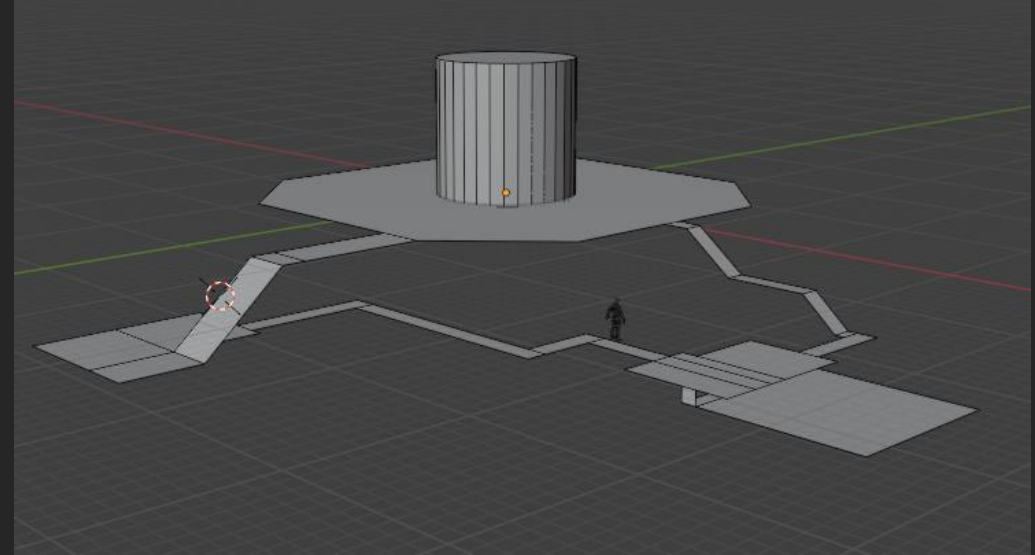
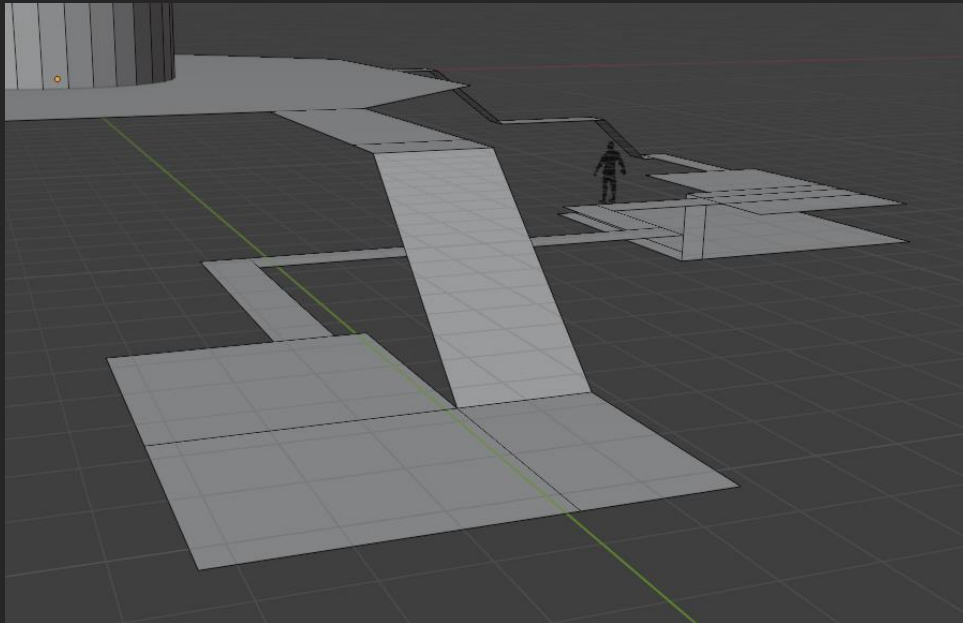
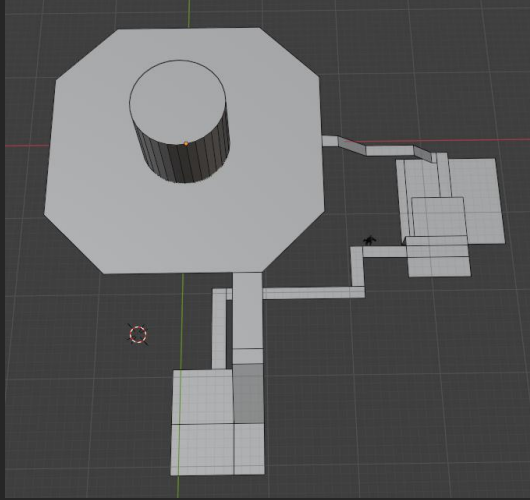
Early Concepts

Crashed Ship in Forest



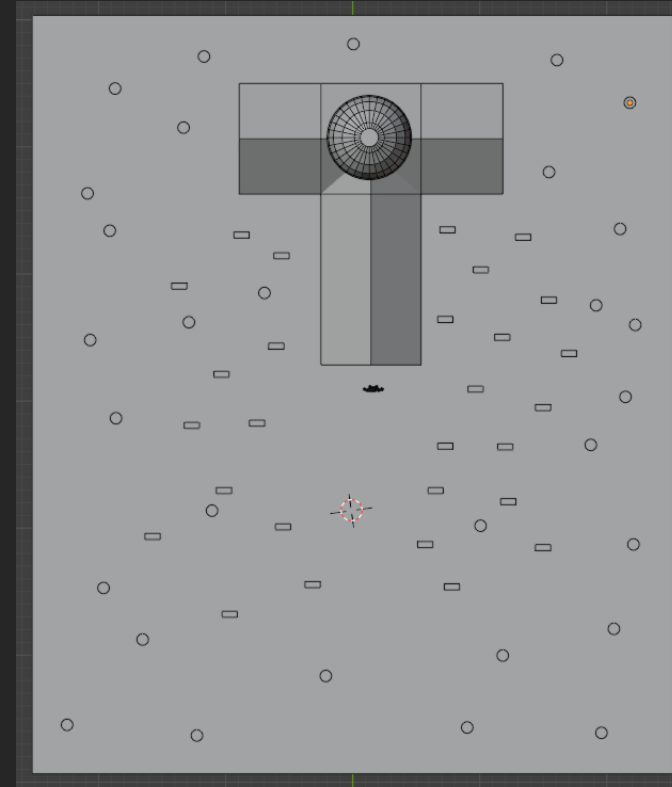
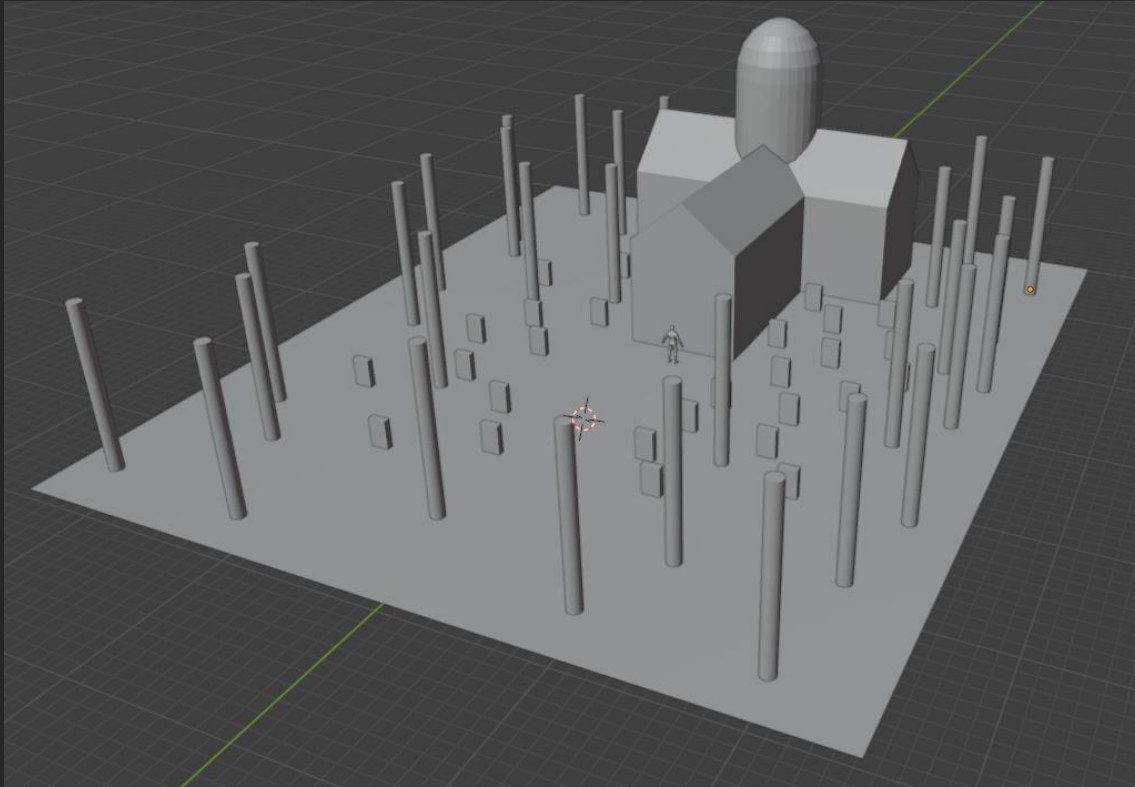
Early Concepts

Abandoned Factory



Early Concepts

Abandoned Church in Forest



Project Purpose

- Create a creepy interactable environment
 - Uses methods discussed in dissertation



Icon and Splash/Editor Art



Icon



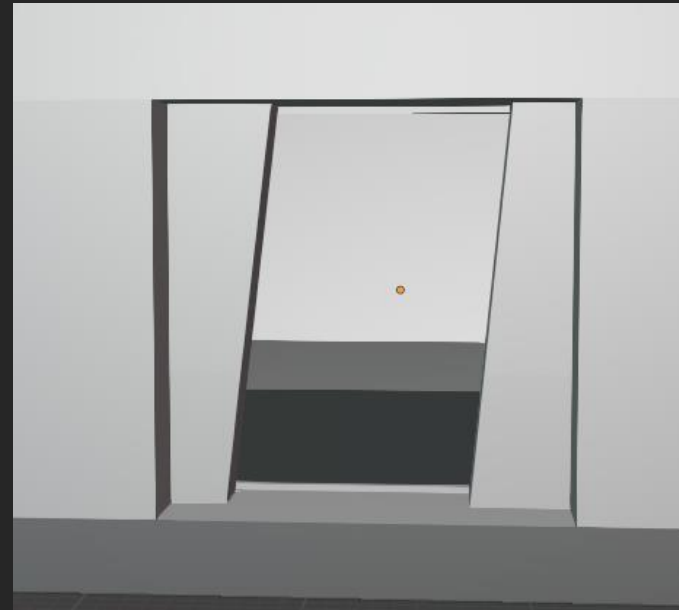
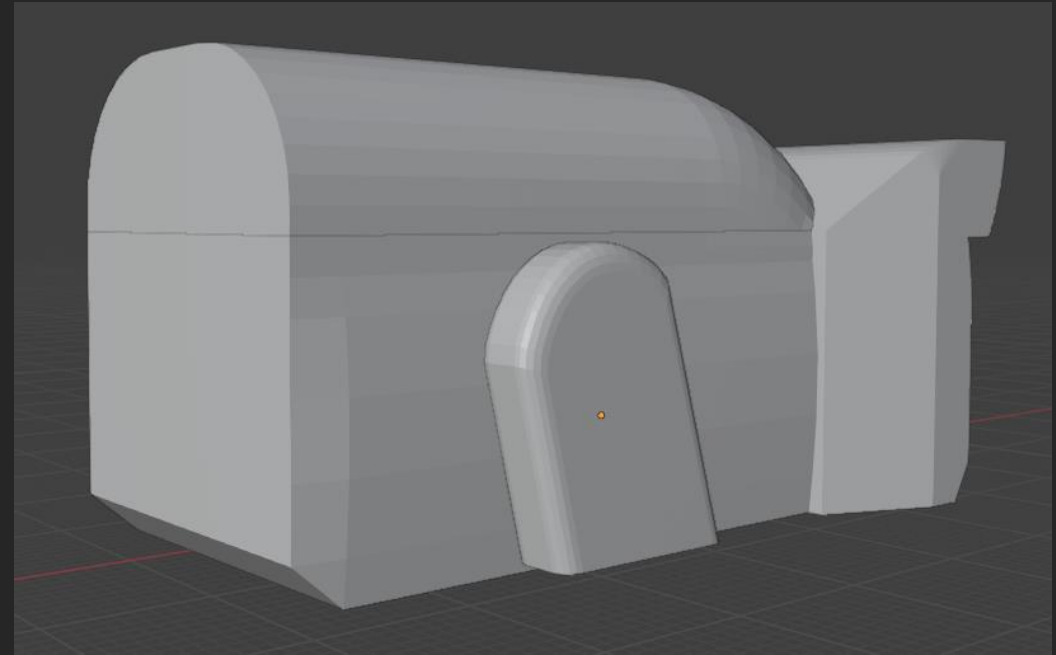
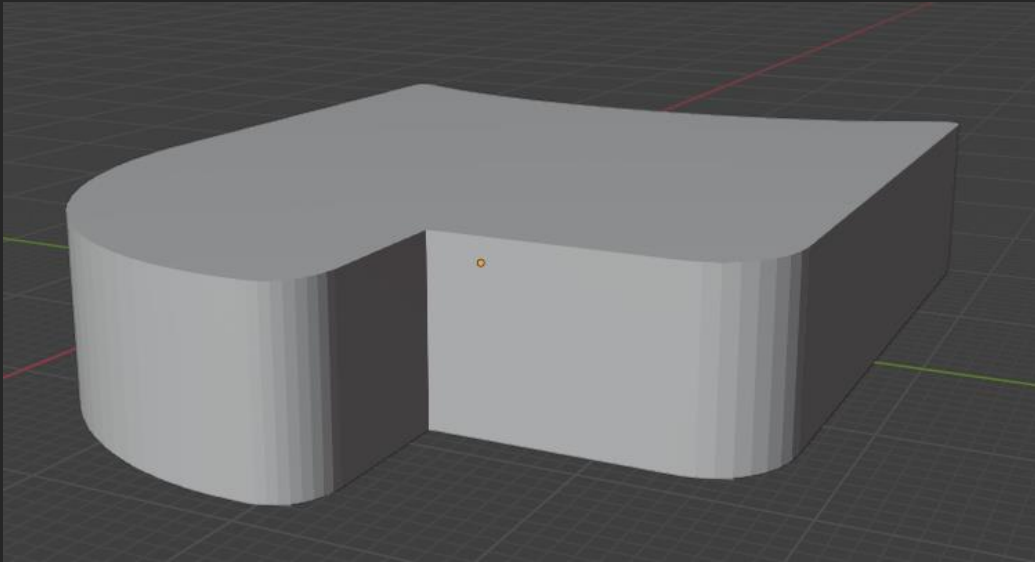
Splash

Asset & Texture Design

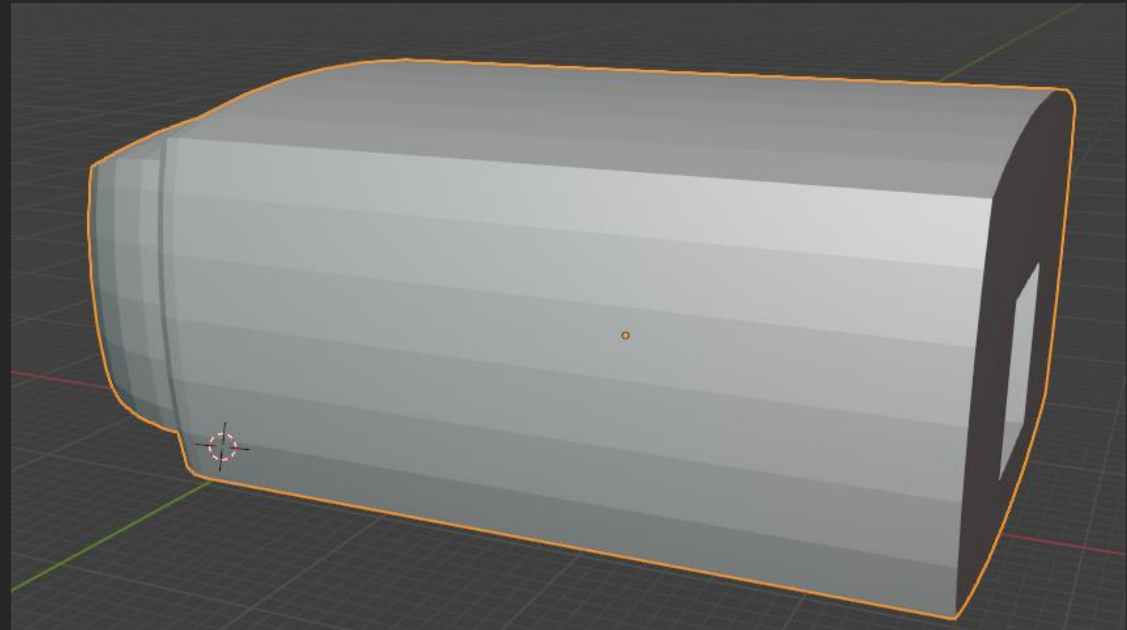
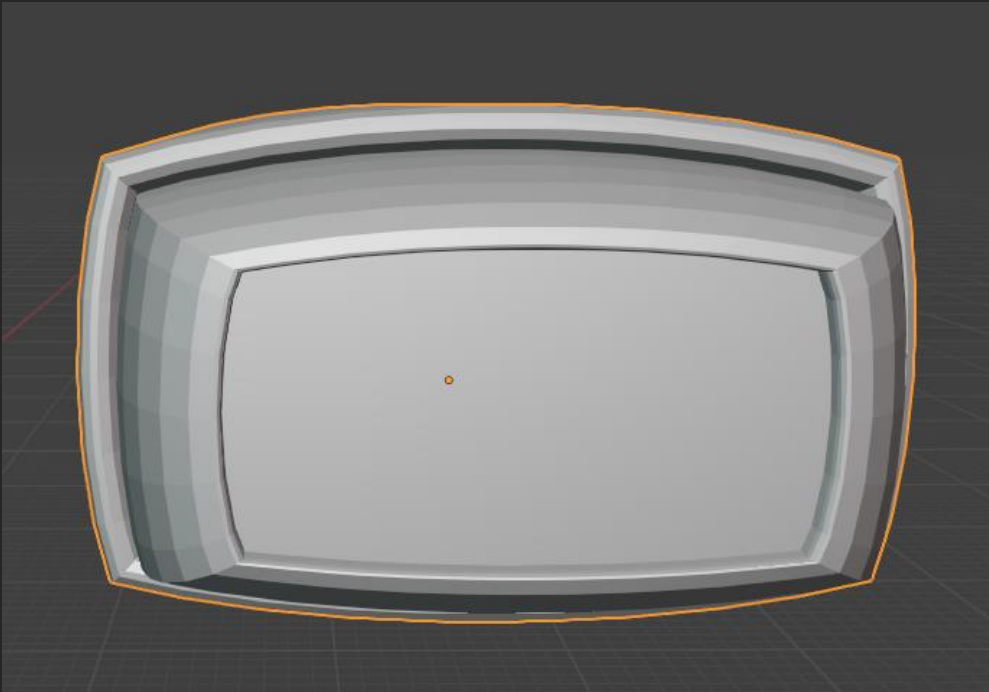
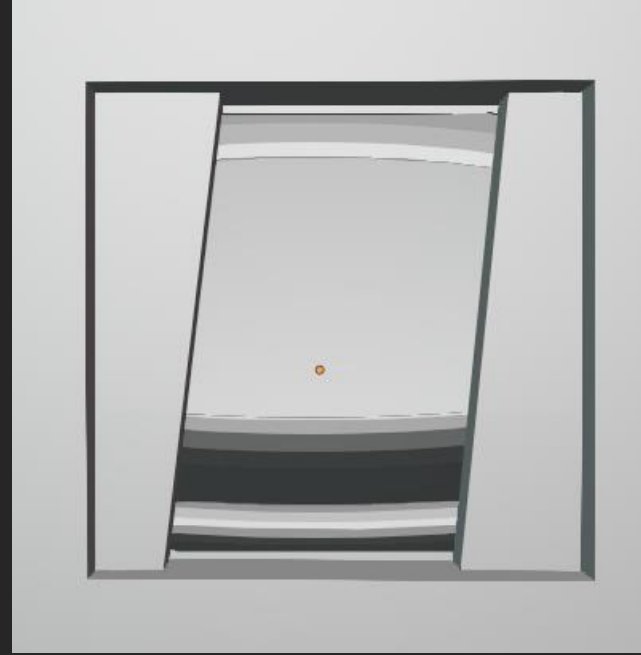
- Majority of assets were made in Blender
- Majority of textures made in Adobe Substance Painter



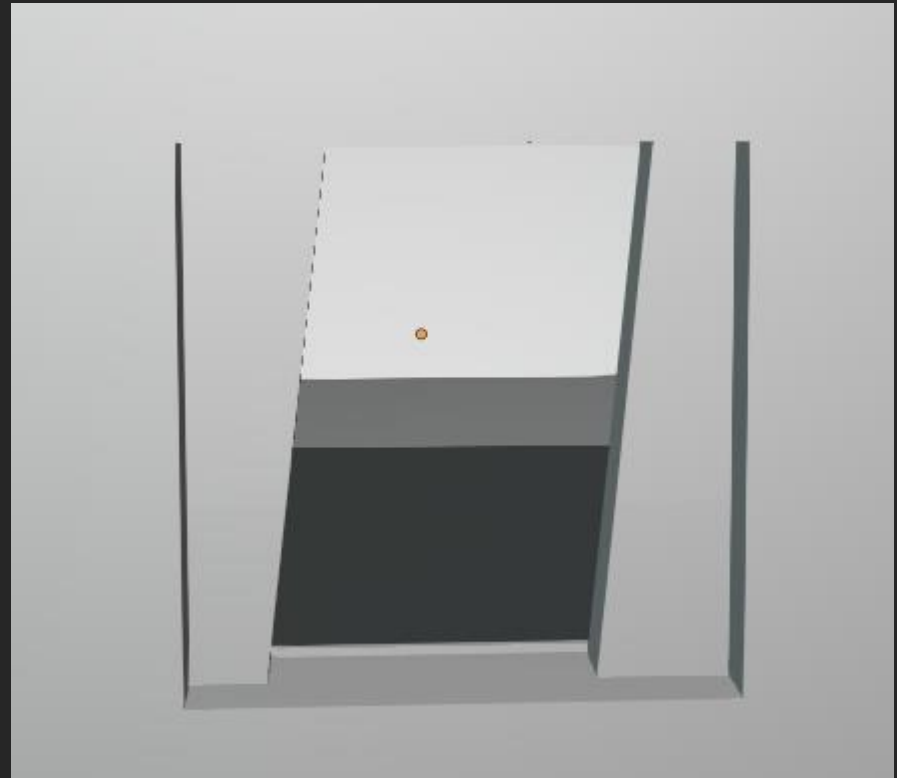
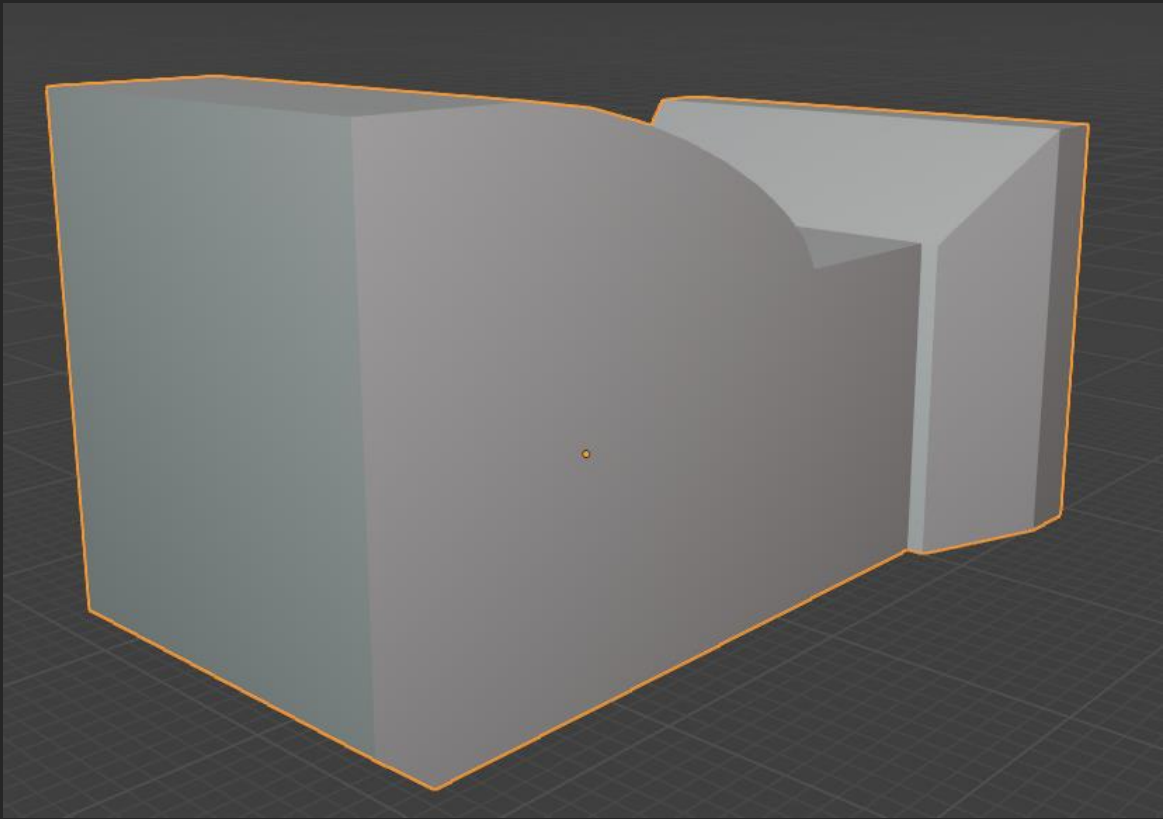
Crashed Ship – Failed Attempts



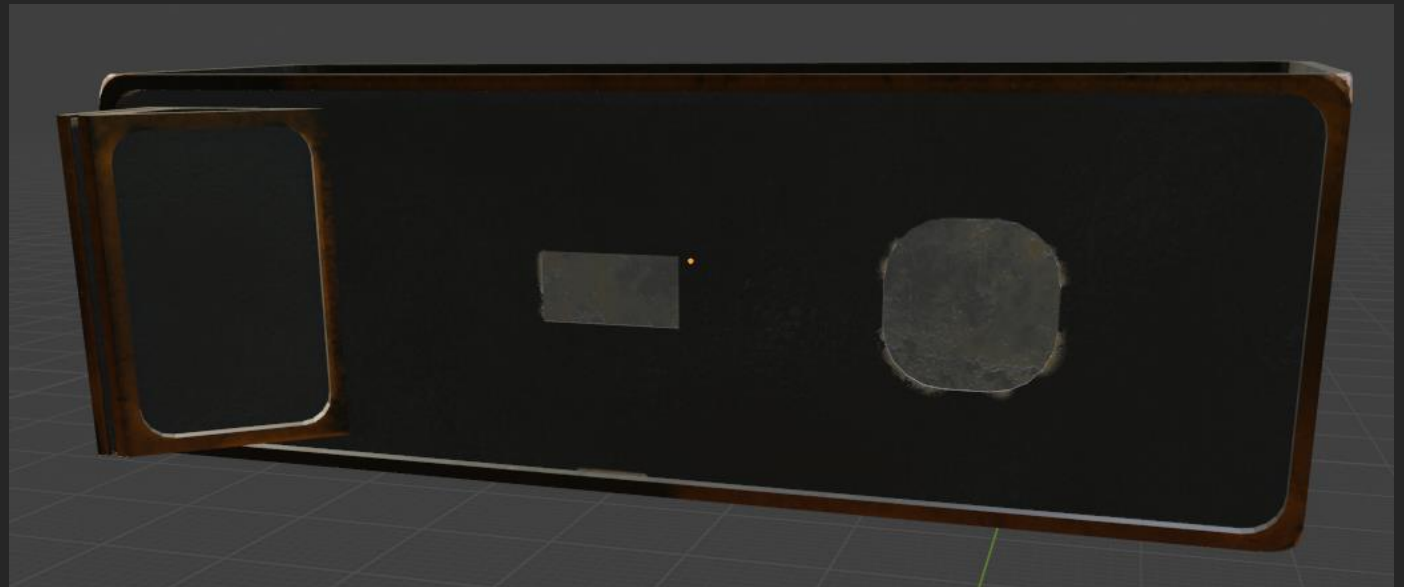
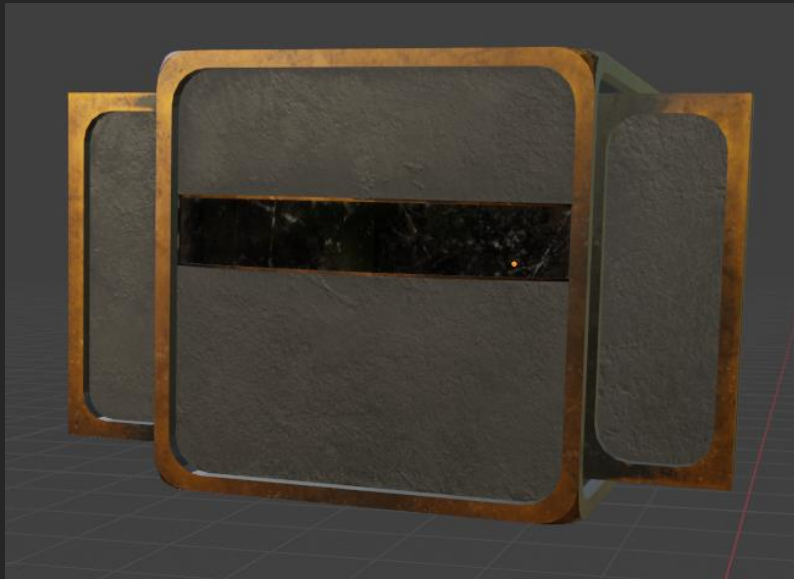
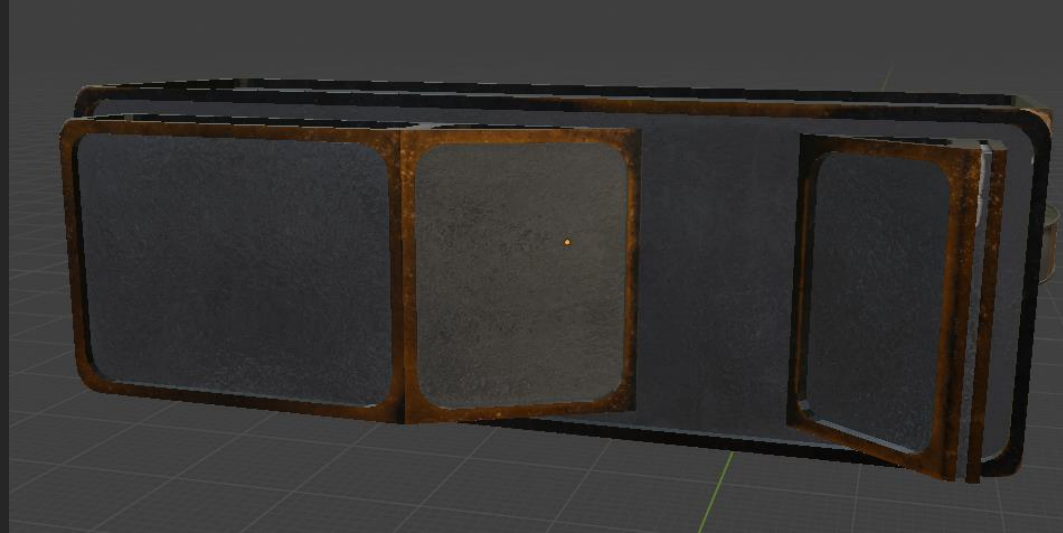
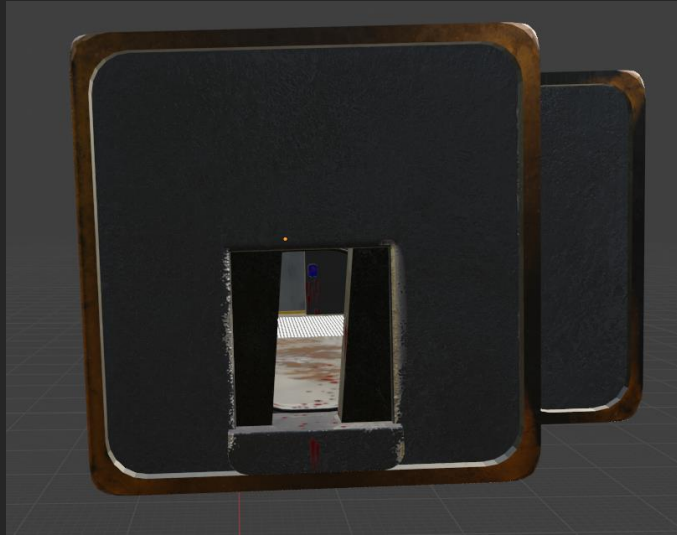
Crashed Ship – Failed Attempts



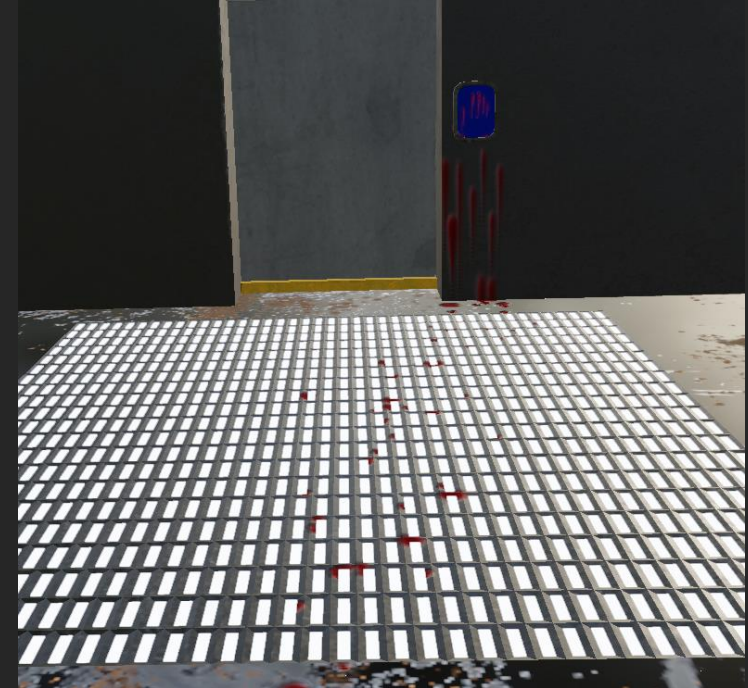
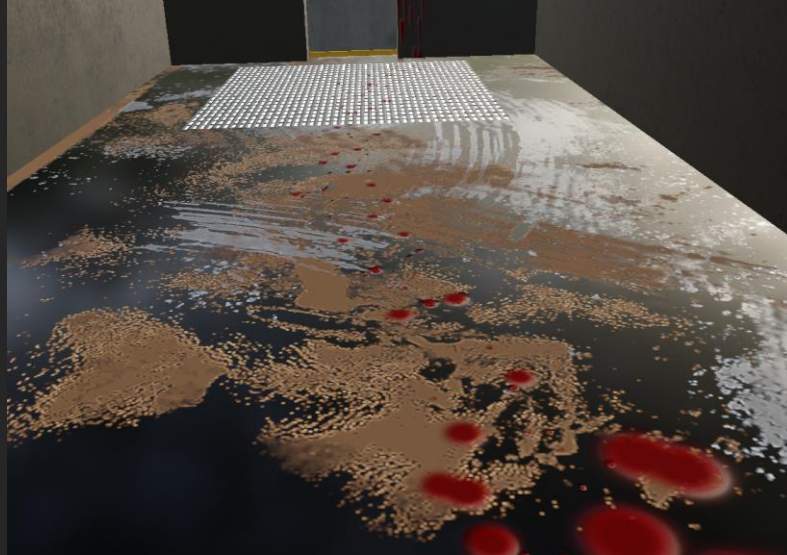
Crashed Ship – Failed Attempts



Crashed Ship - Exterior



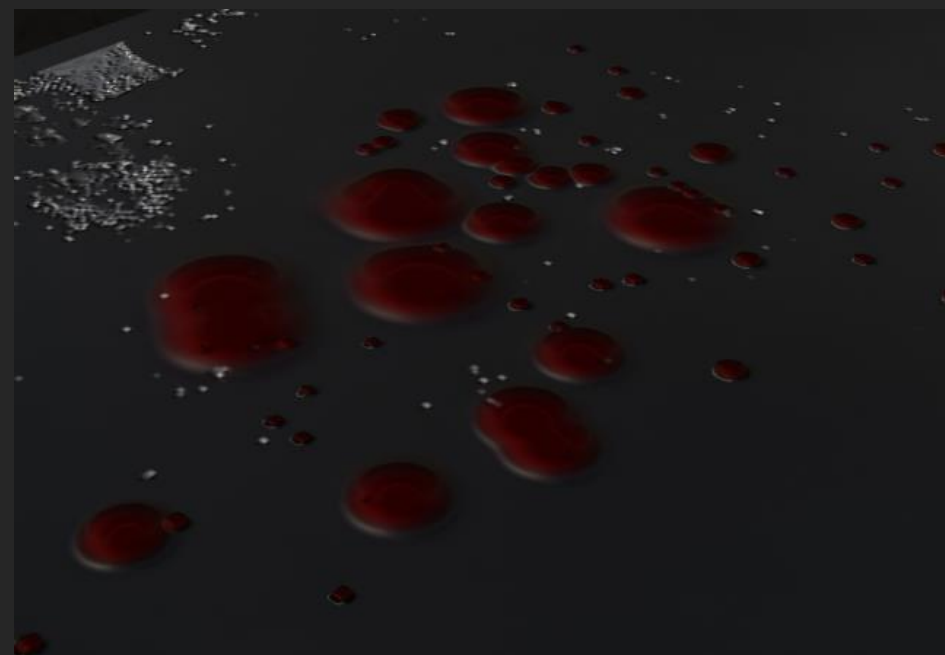
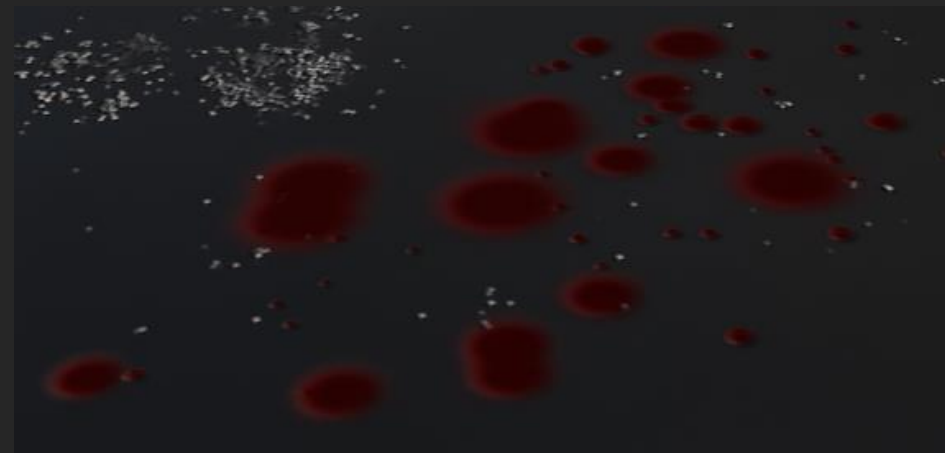
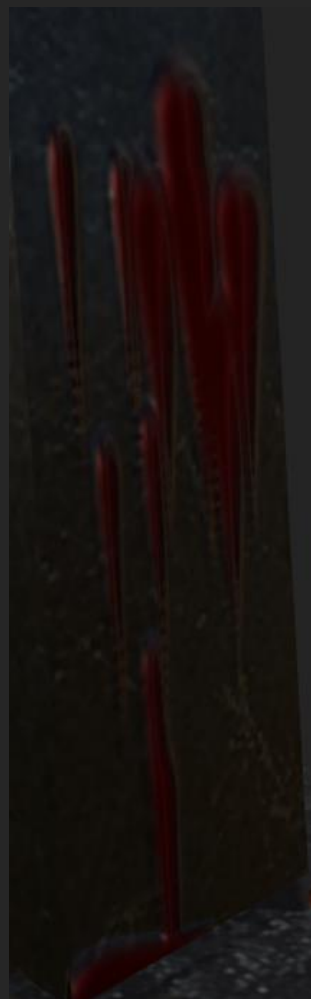
Crashed Ship – Old Interior



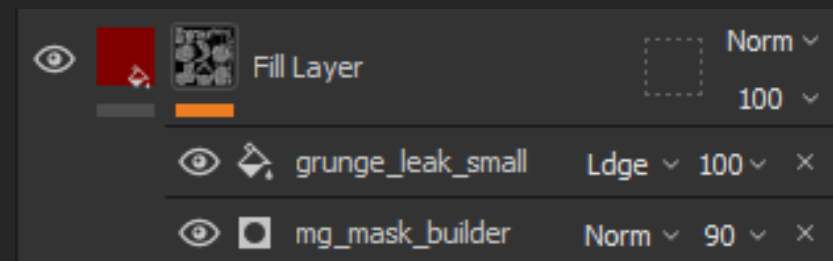
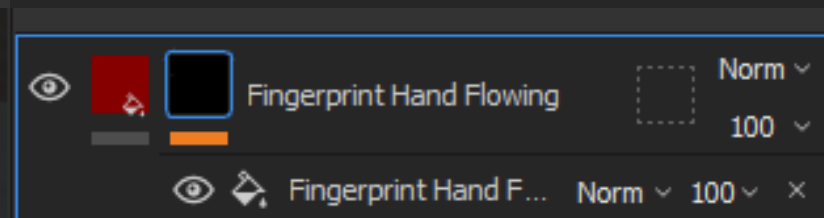
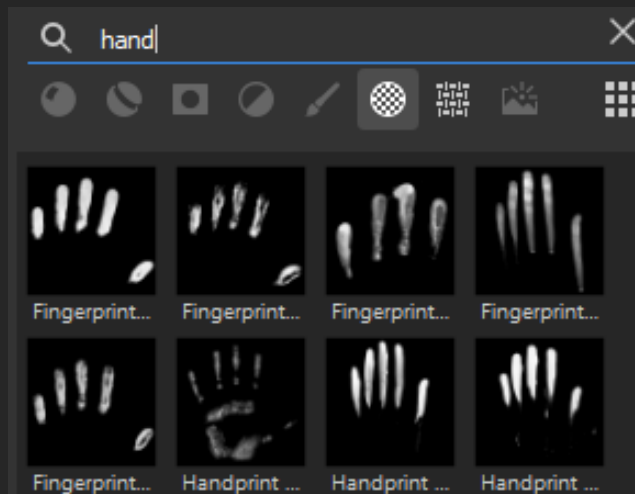
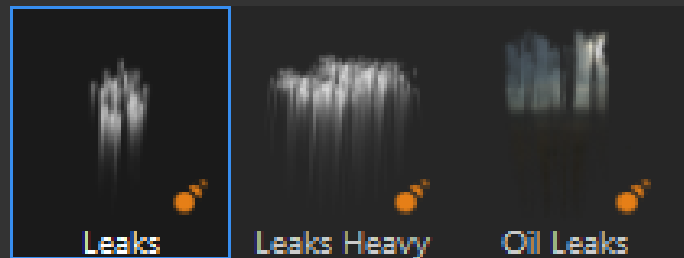
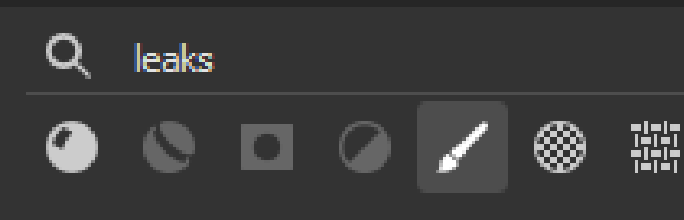
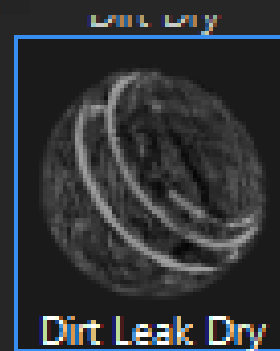
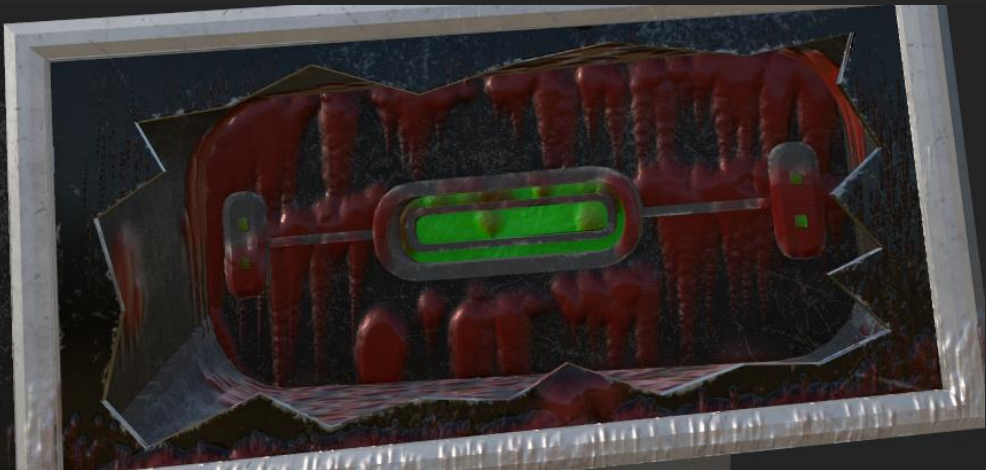
Crashed Ship – New Interior



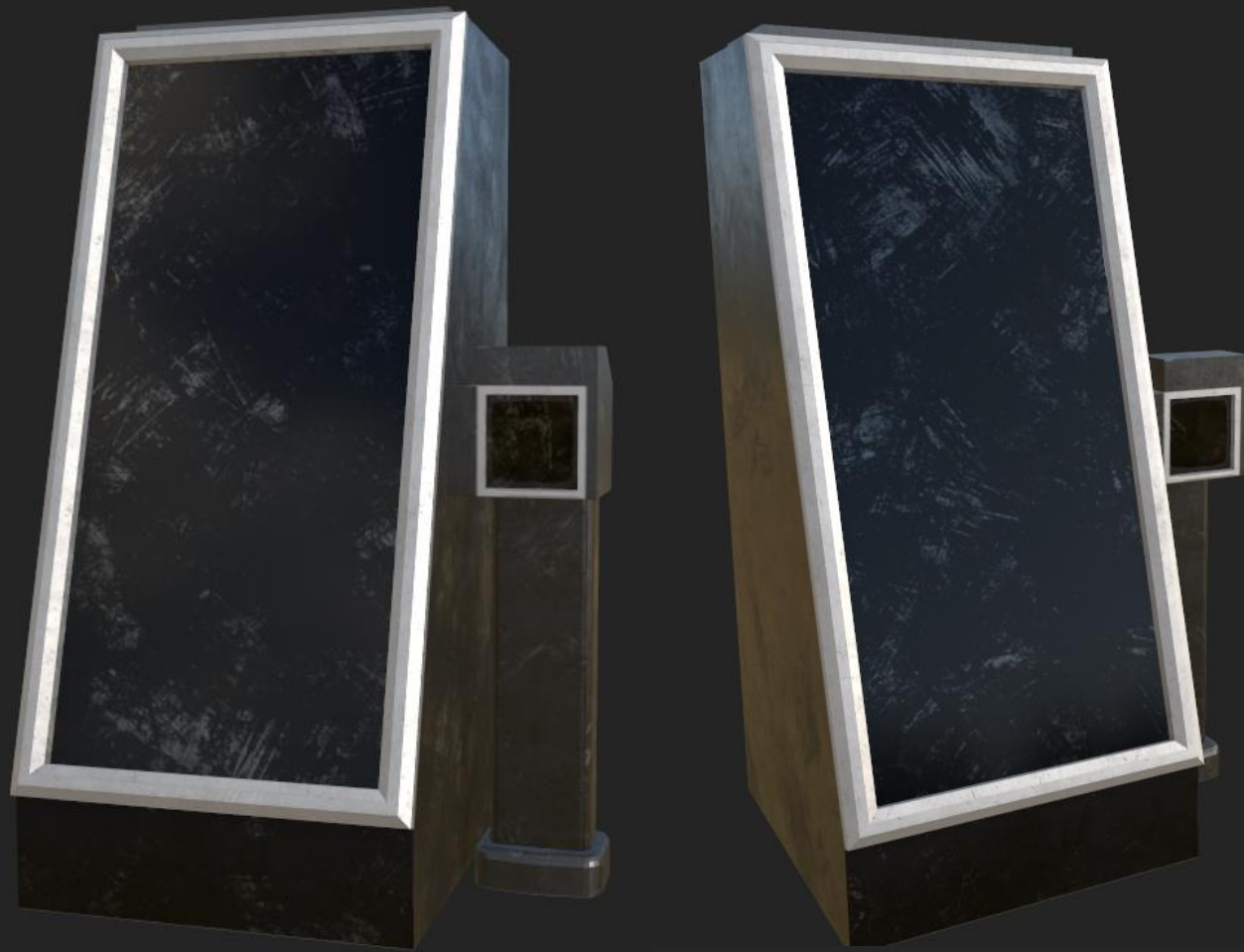
Blood



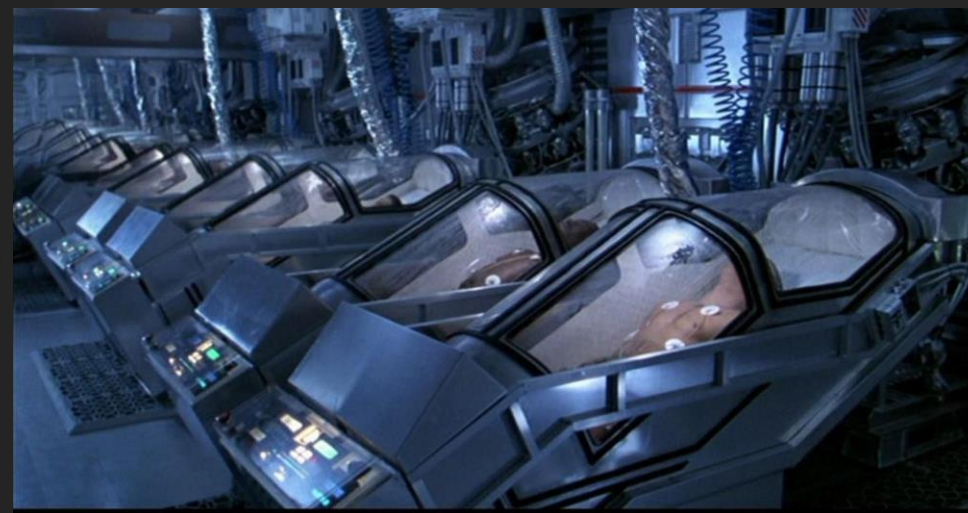
Blood



Pods



[1]



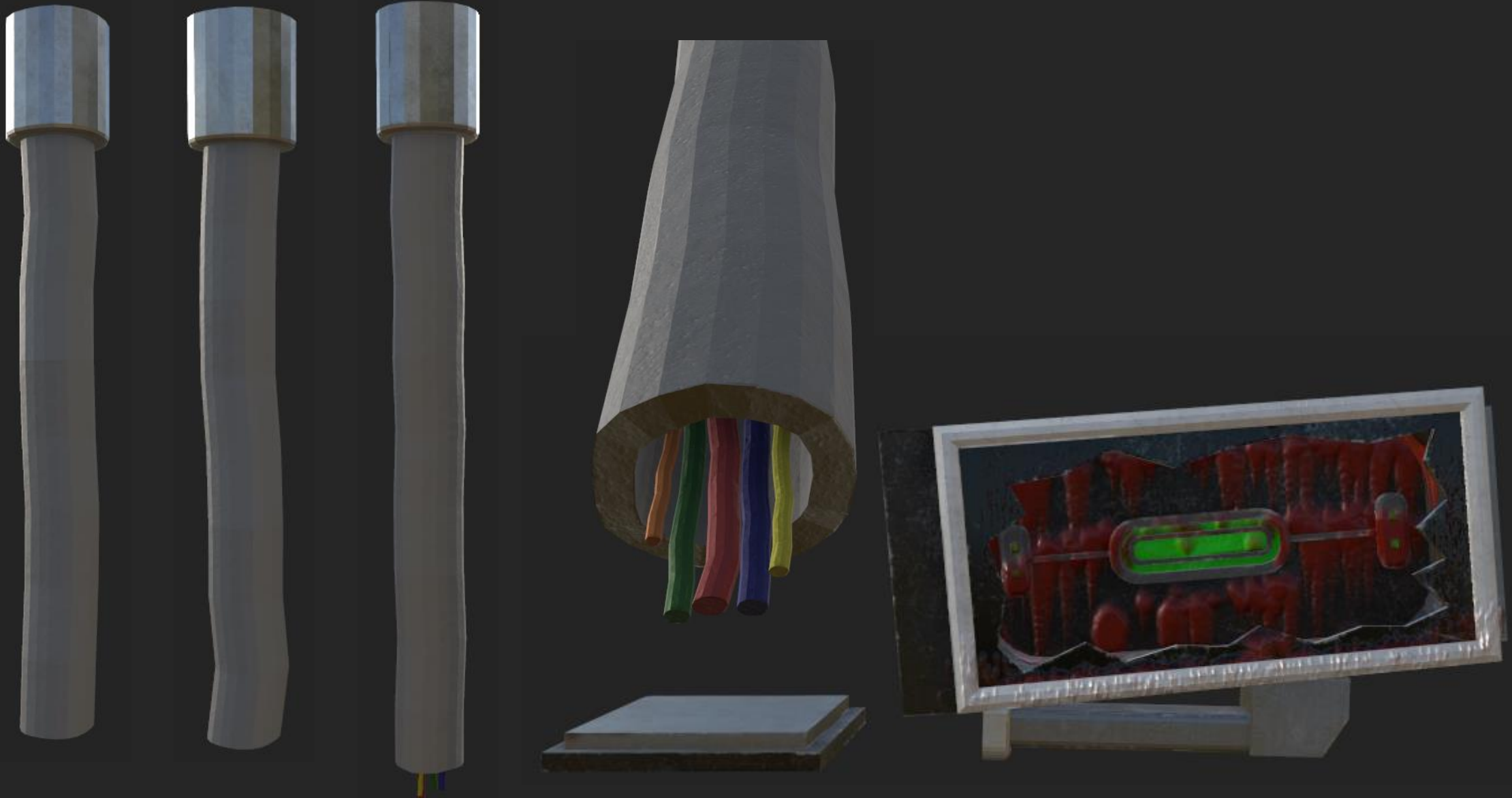
▼ Parameters

Seed

Random



Pod Pipes/Broken Pod

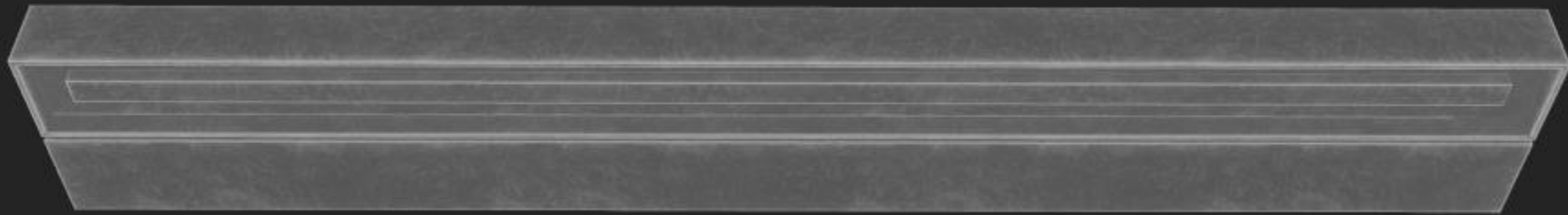


Glowing Cylinders

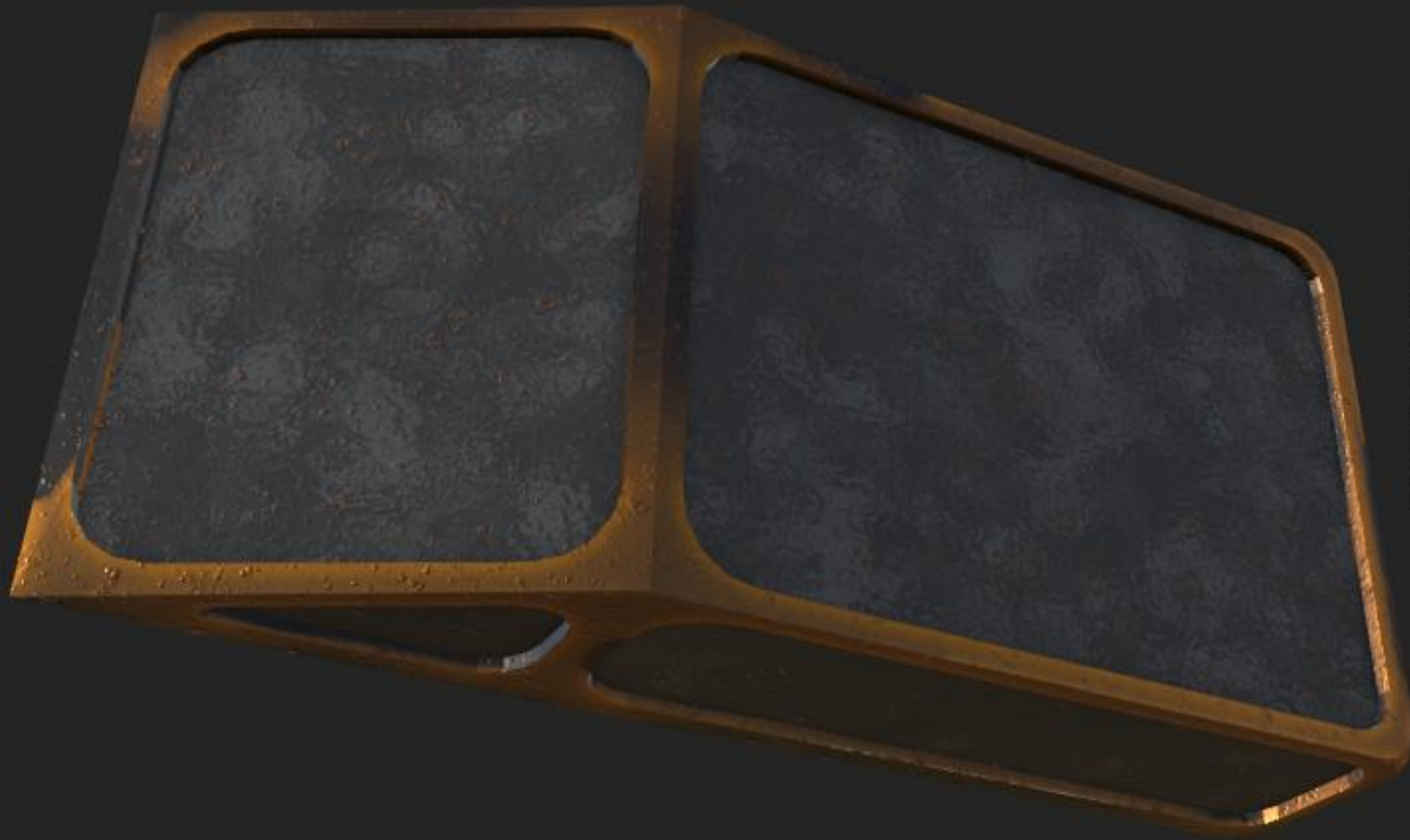


[2]

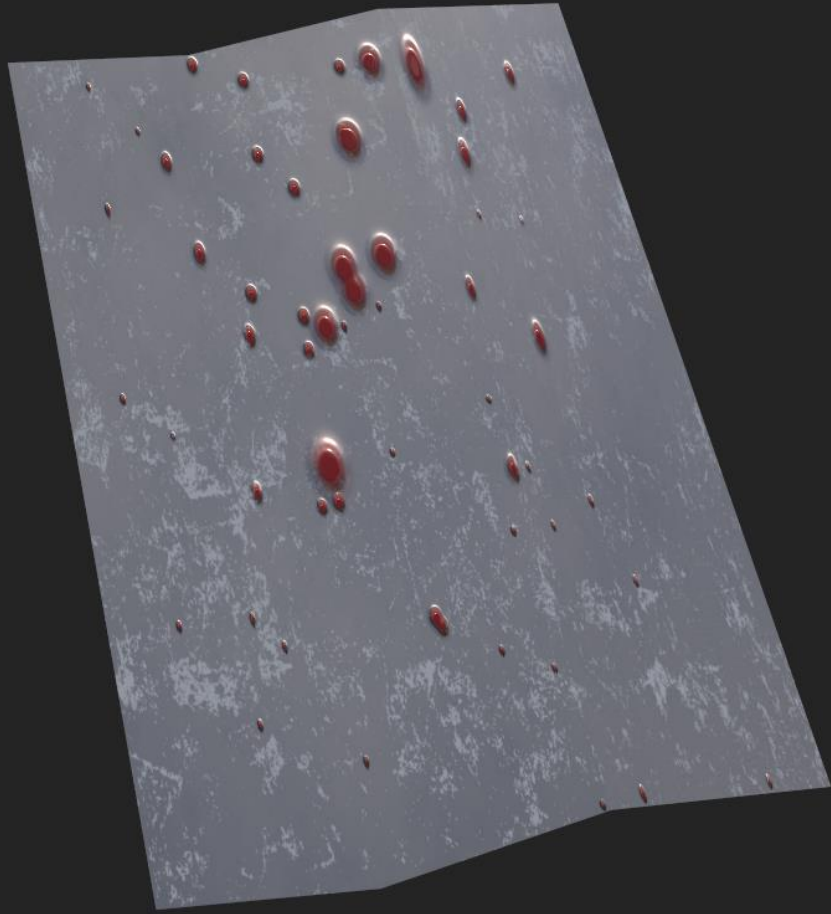
Lights



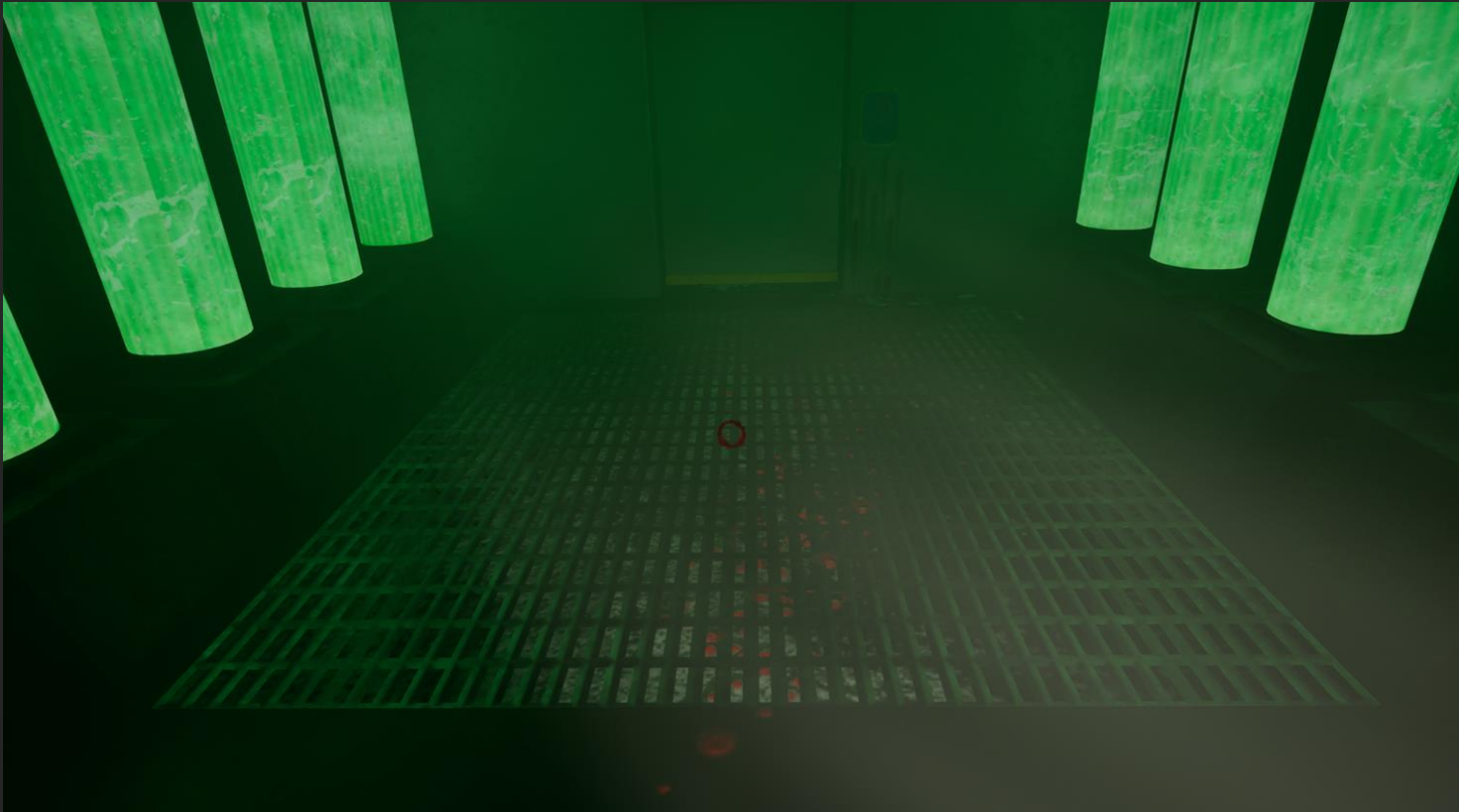
Ship Wing



Metal Sheet



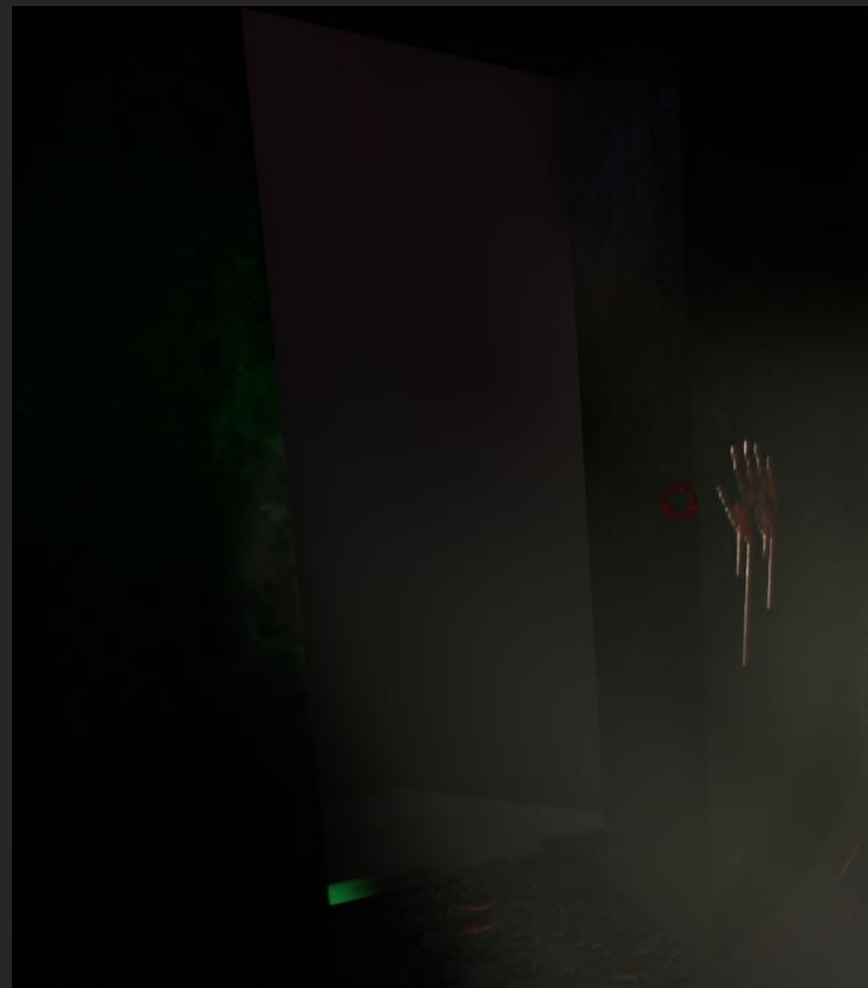
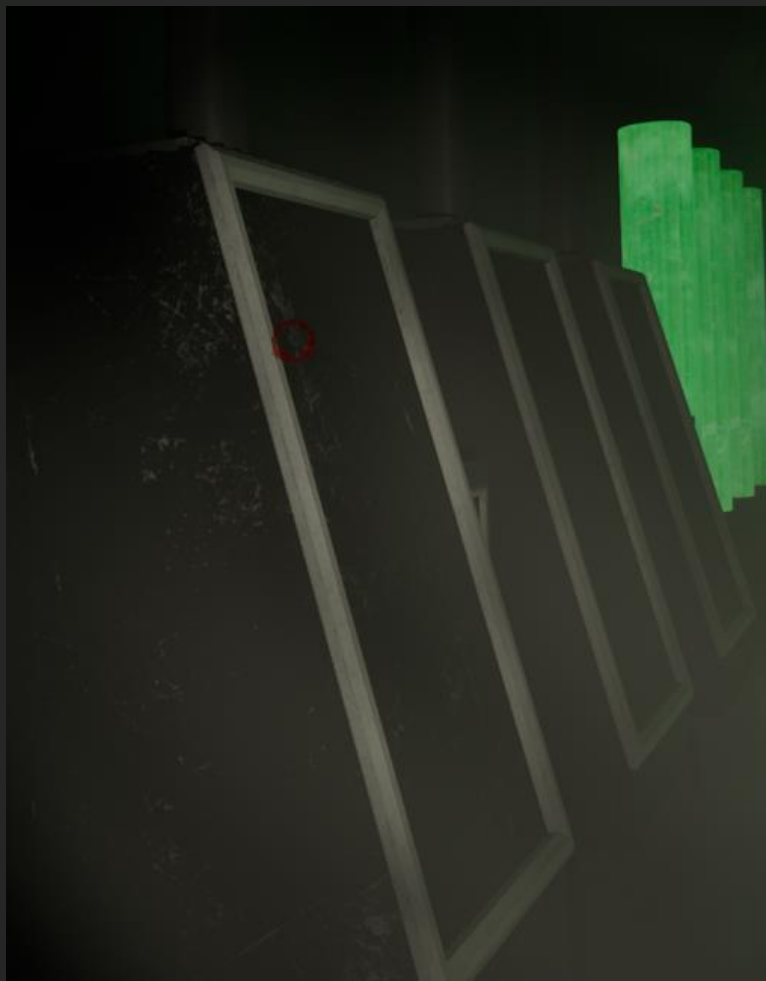
Entire Ship



Entire Ship



Entire Ship



Entire Ship

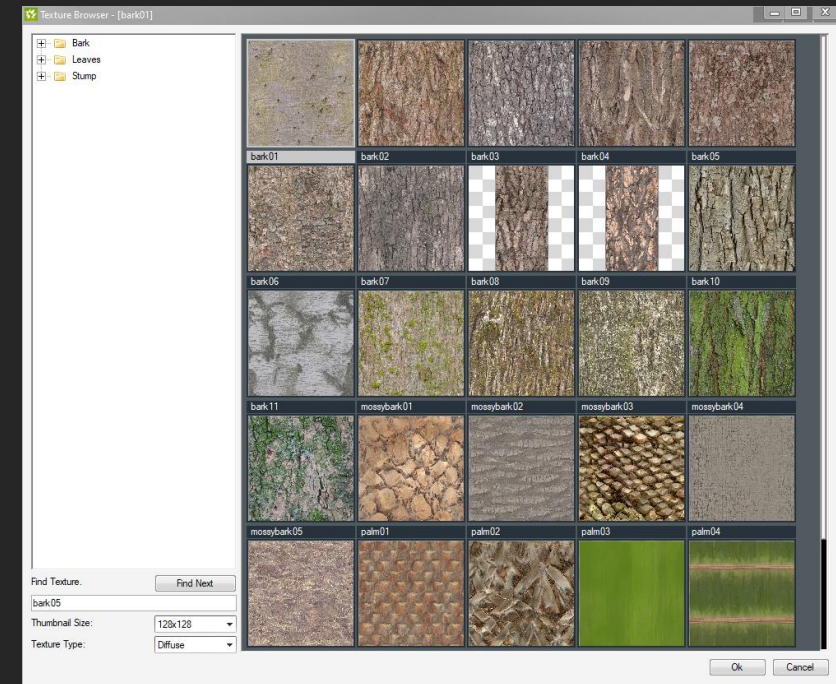


Entire Ship

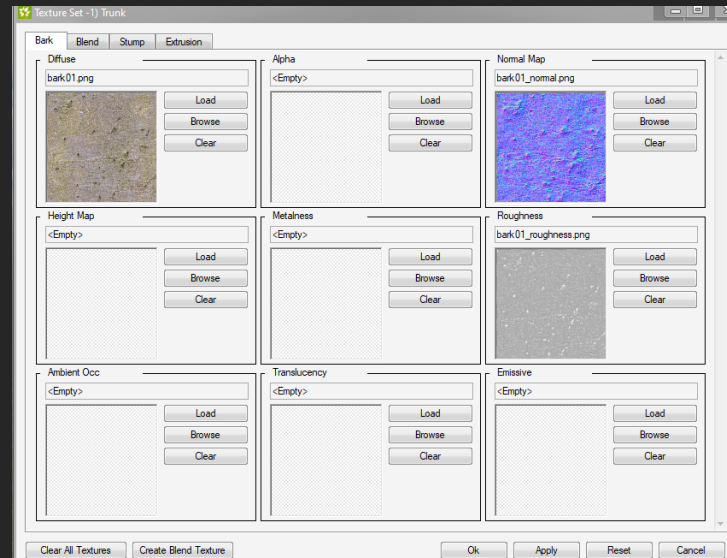
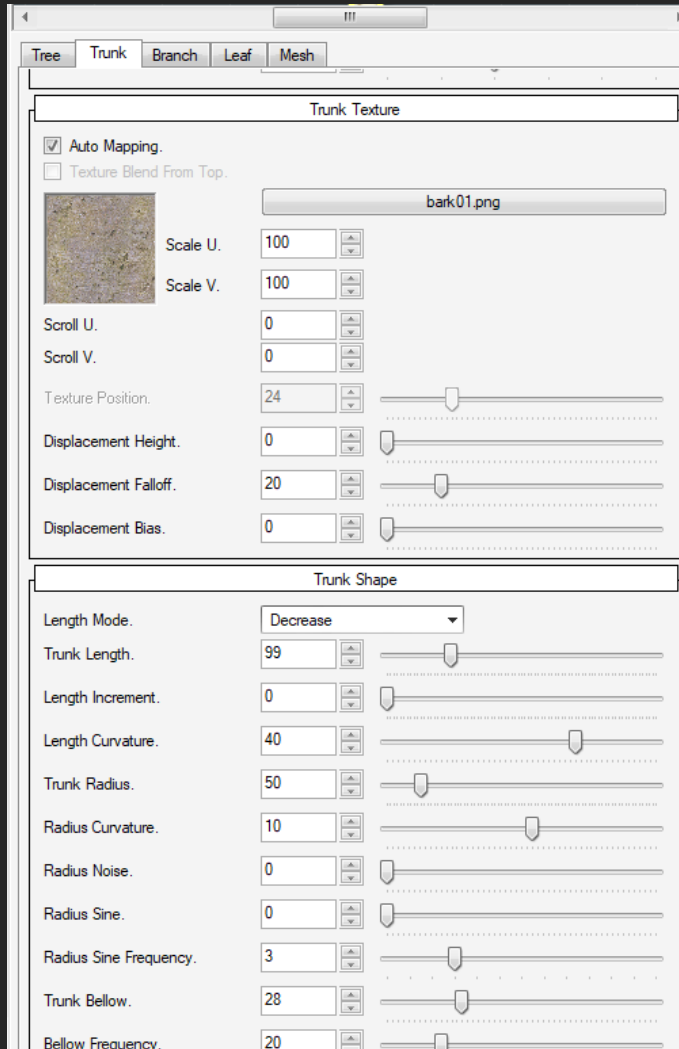


Trees and Flowers

Software “Tree It” was used



Trees and Flowers



Name

Tree Blood

Tree1

Tree2

Tree3

Tree4

Tree5

Tree6

Tree7

Tree8



Trees and Flowers



Bloody Tree



Optimisation

Branch Count.	15	▲ ▼	<input type="range" value="15"/>
Branch Segments.	2	▲ ▼	<input type="range" value="2"/>
Leaf Count.	102	▲ ▼	<input type="range" value="102"/>
Leaf Segments.	2	▲ ▼	<input type="range" value="2"/>
Total Polygons: 766			



Environment Design



Weather Choice

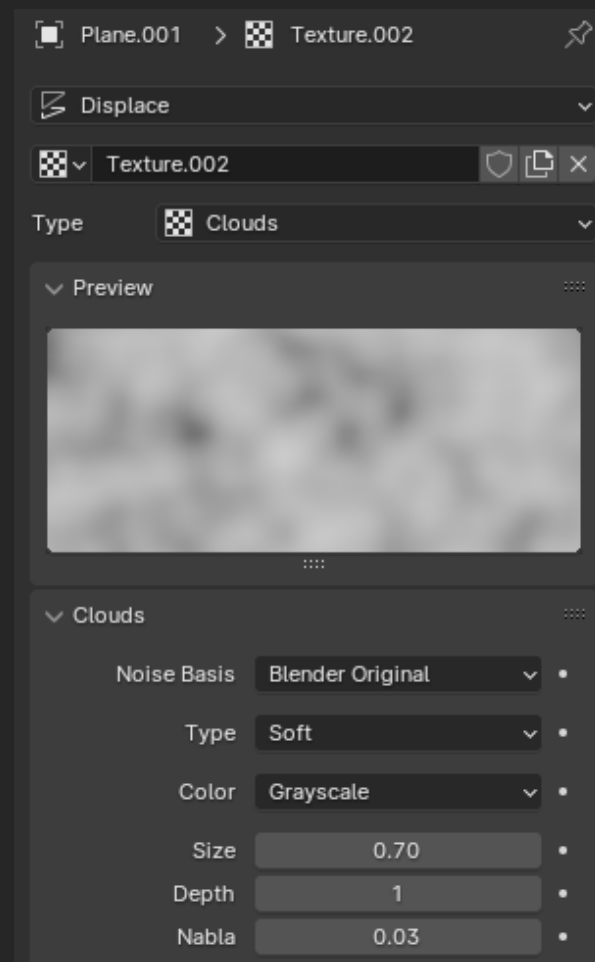
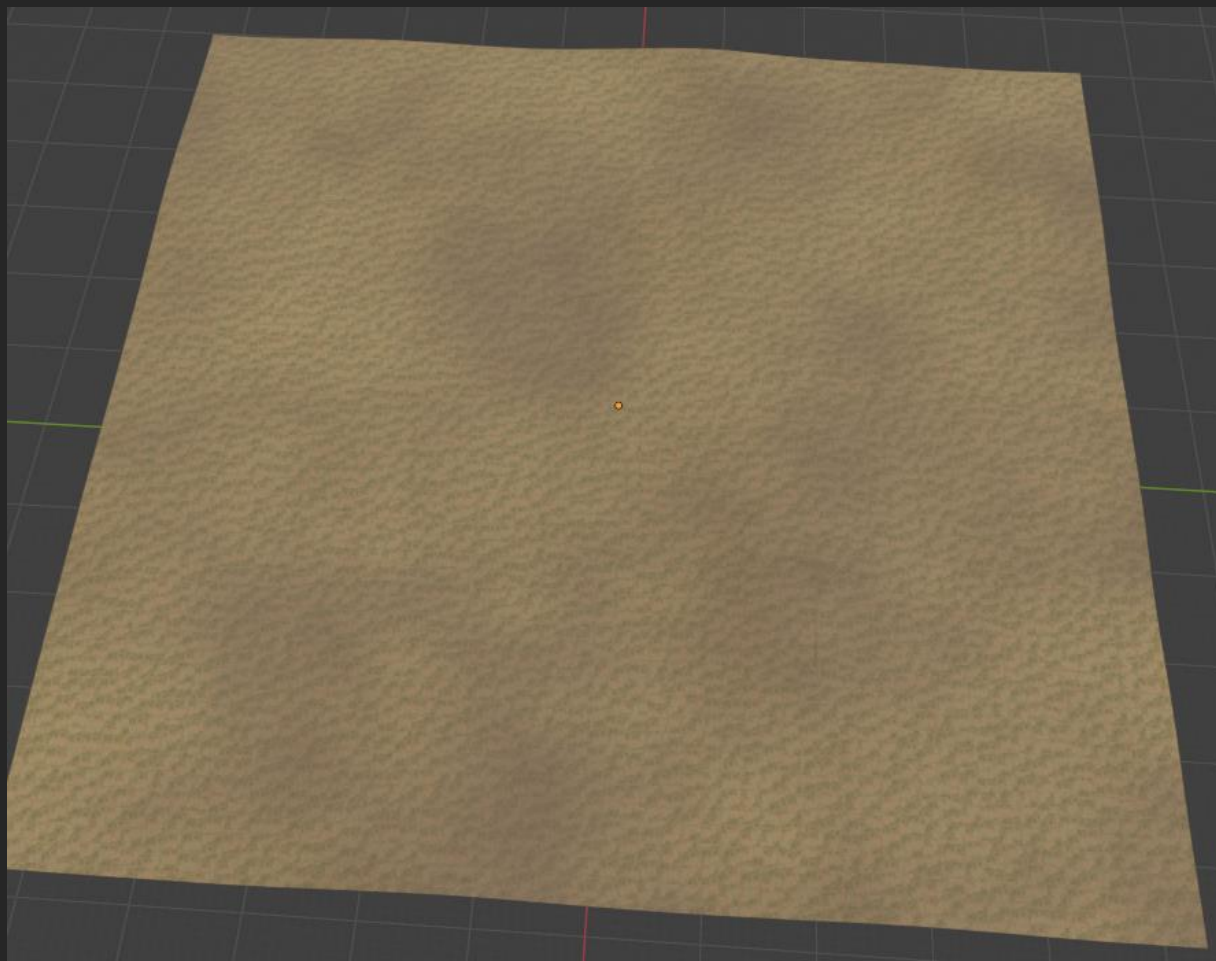
Dry, foggy weather



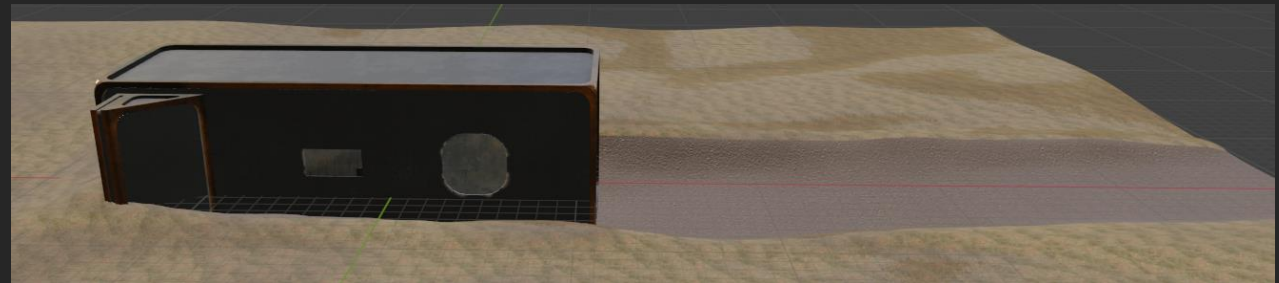
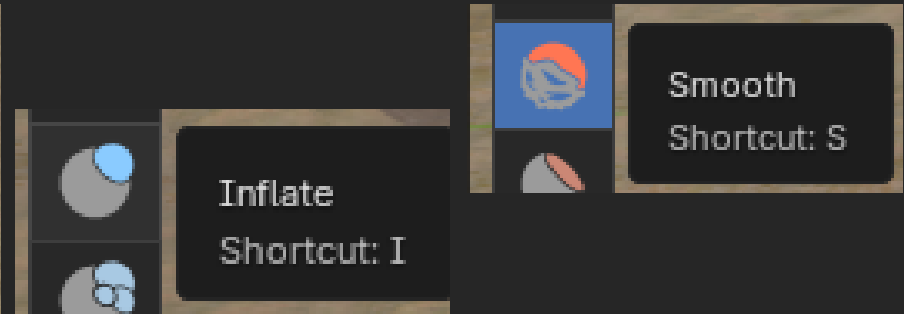
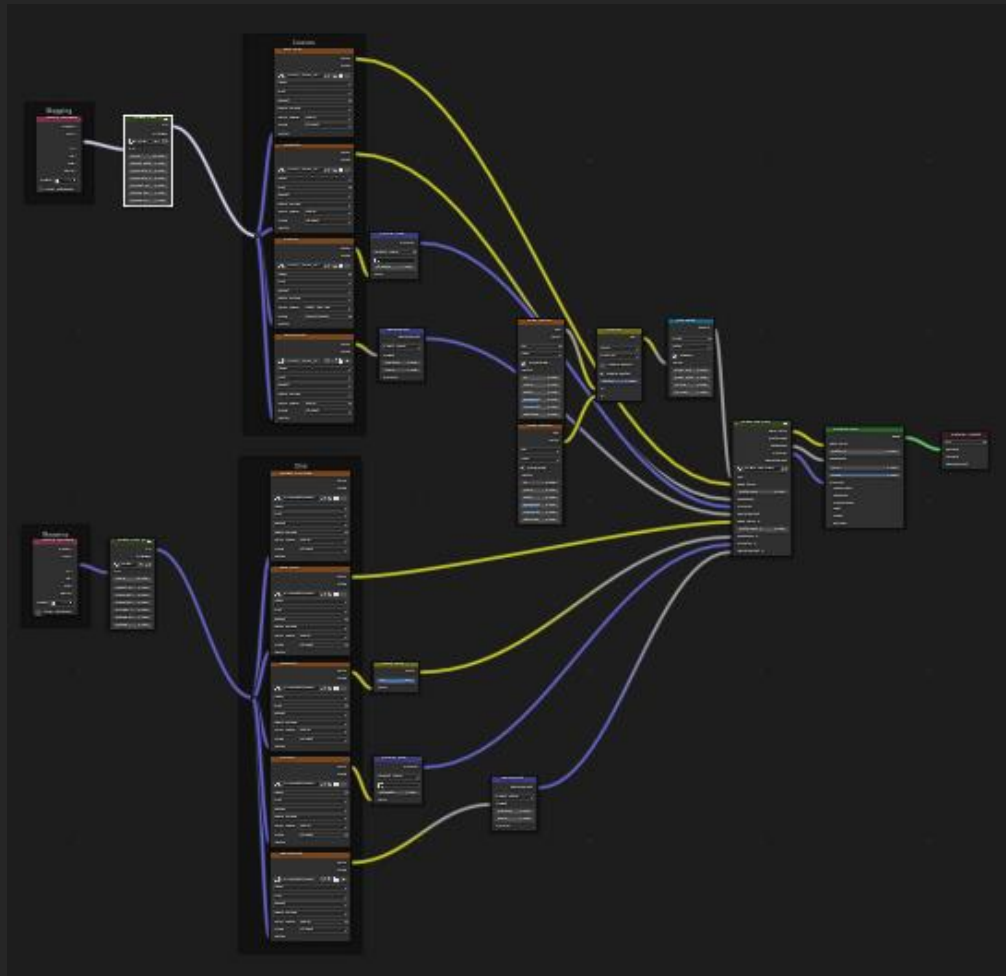
 ExponentialHeightFog

▼ Exponential Height Fog Component	
Fog Density	1.5
Fog Height Falloff	0.001
▶ Second Fog Data	
▶ Fog Inscattering Color	
▶ Sky Atmosphere Ambi...	
Fog Max Opacity	1.0
Start Distance	1.0
Fog Cutoff Distance	2.0

Terrain Design



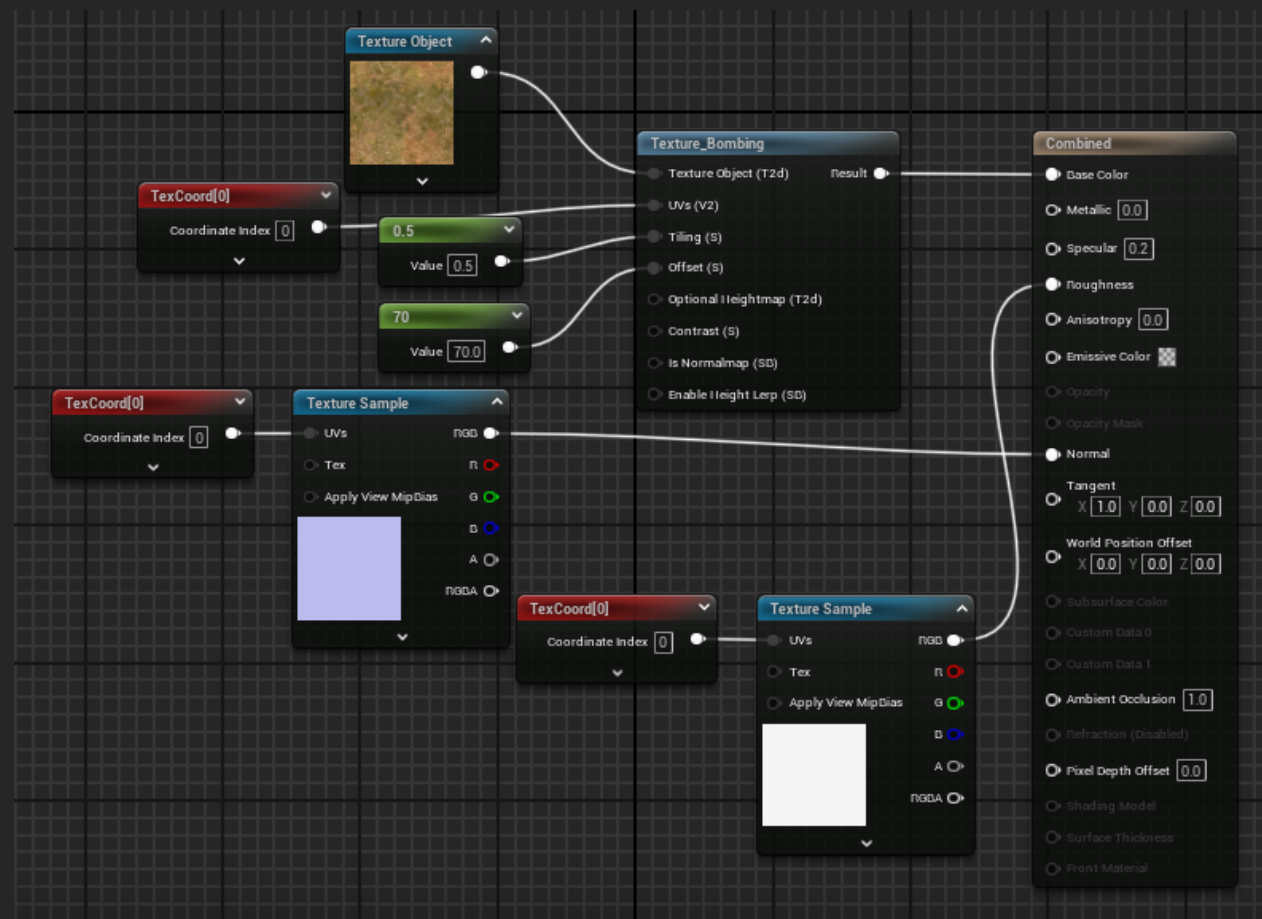
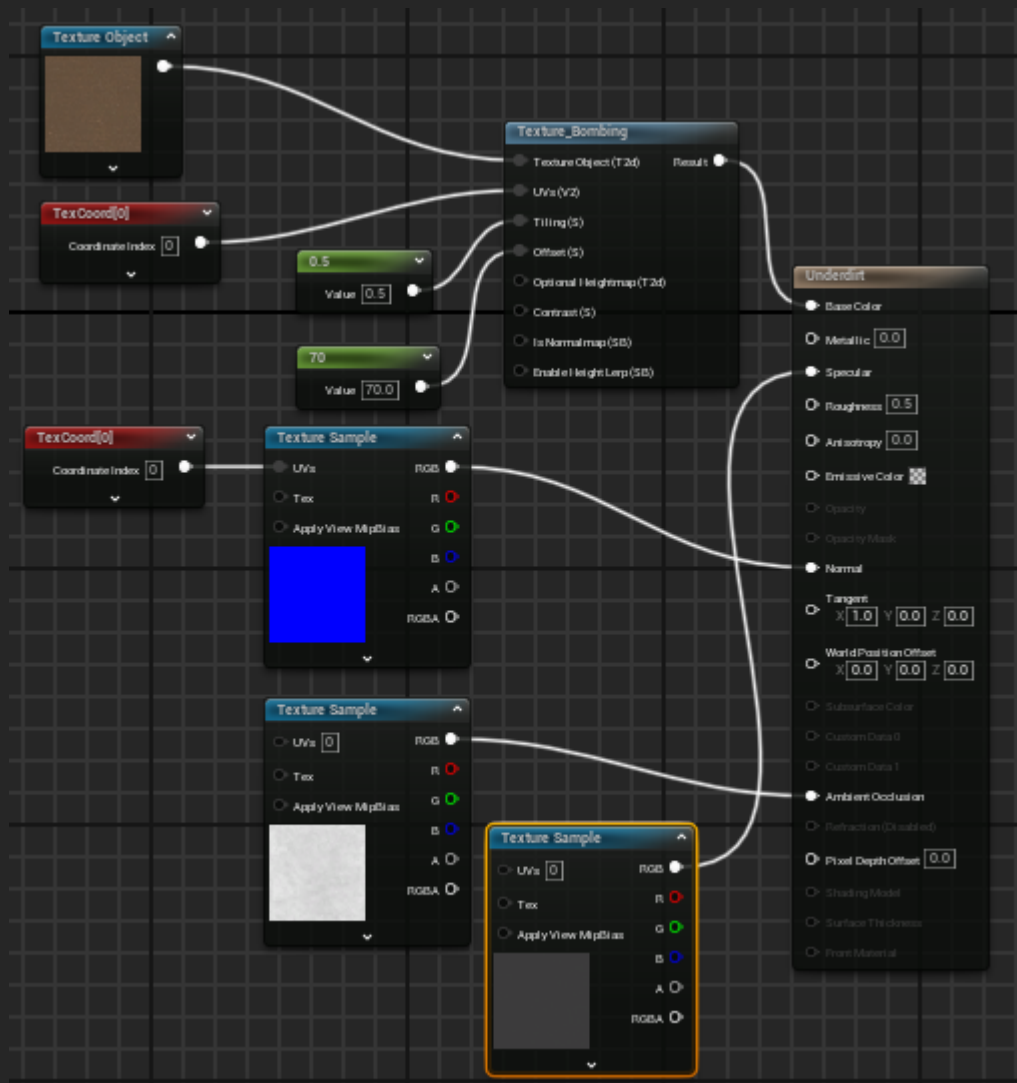
Terrain Design



Terrain Design



Terrain in Unreal



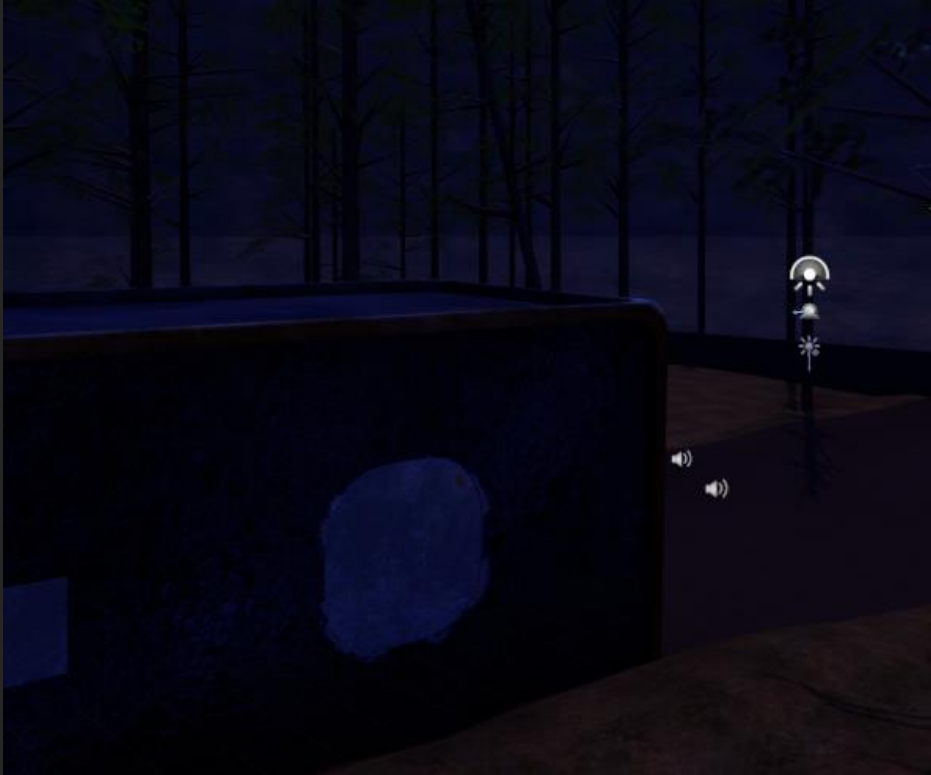
Scene in Unreal^{Unlit Scene}



Lighting



Atmospheric Sun Light



Sky Atmosphere



Sky Light



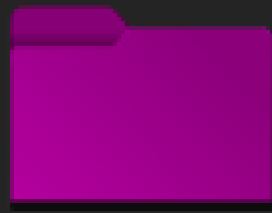
Audio Design

Flashlight

Footsteps

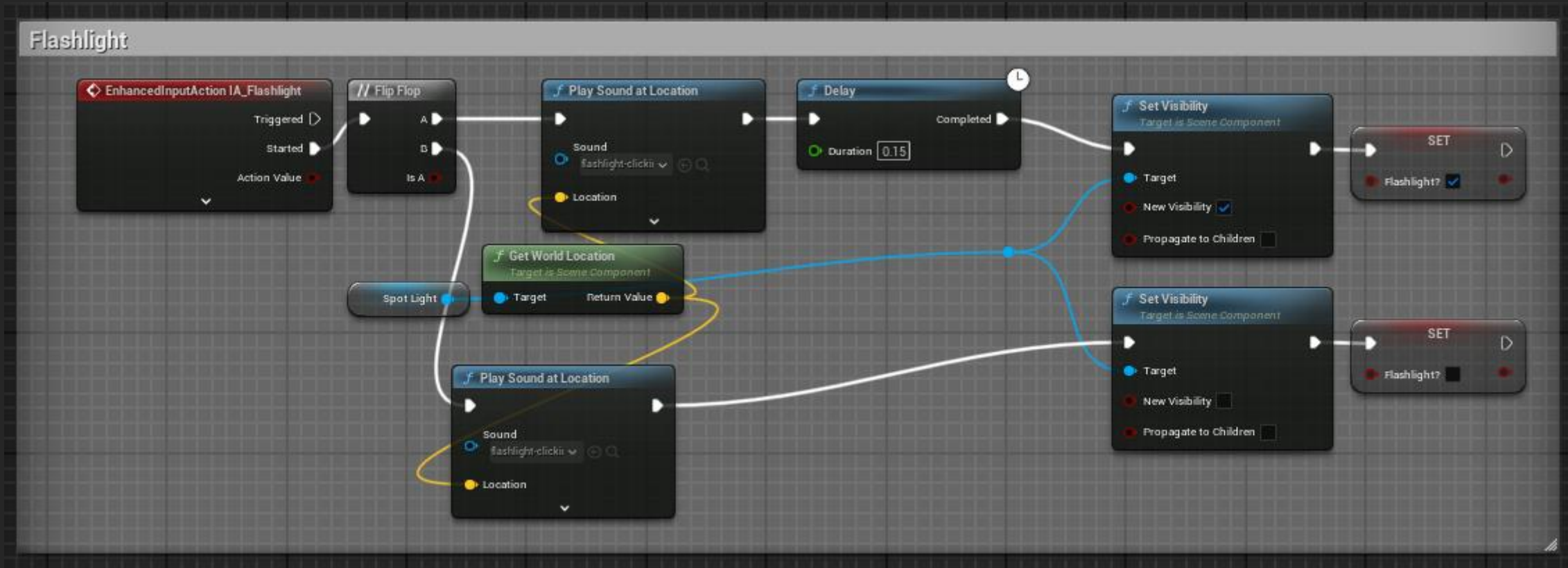
Ambience

Environment SFX



SFX

Flashlight Audio



Footstep Audio

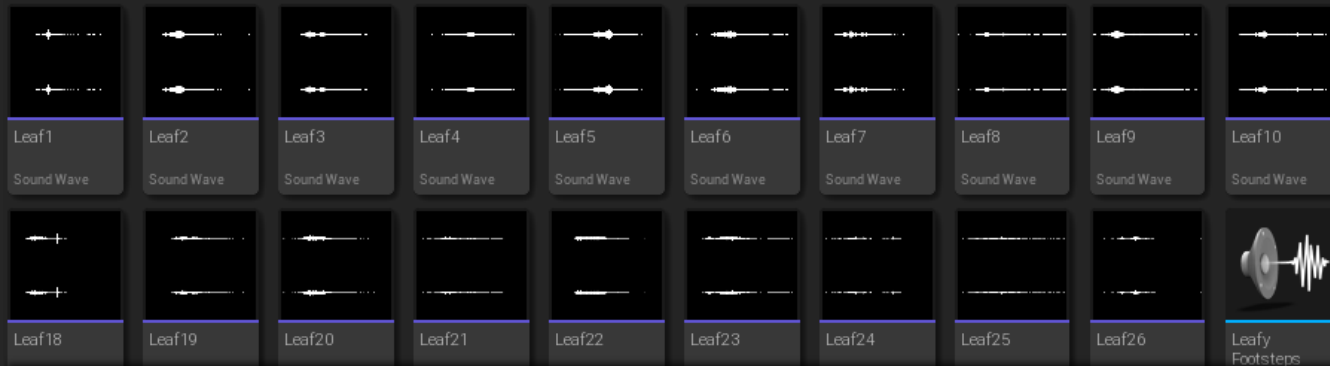


Dirt

Leaves

Physical
Material

Steel



⌚ Footsteps_TL

+ Track Length 0.70 [play] [stop] [loop] [mute] [volume]

Tick Group TG_PrePhysics v

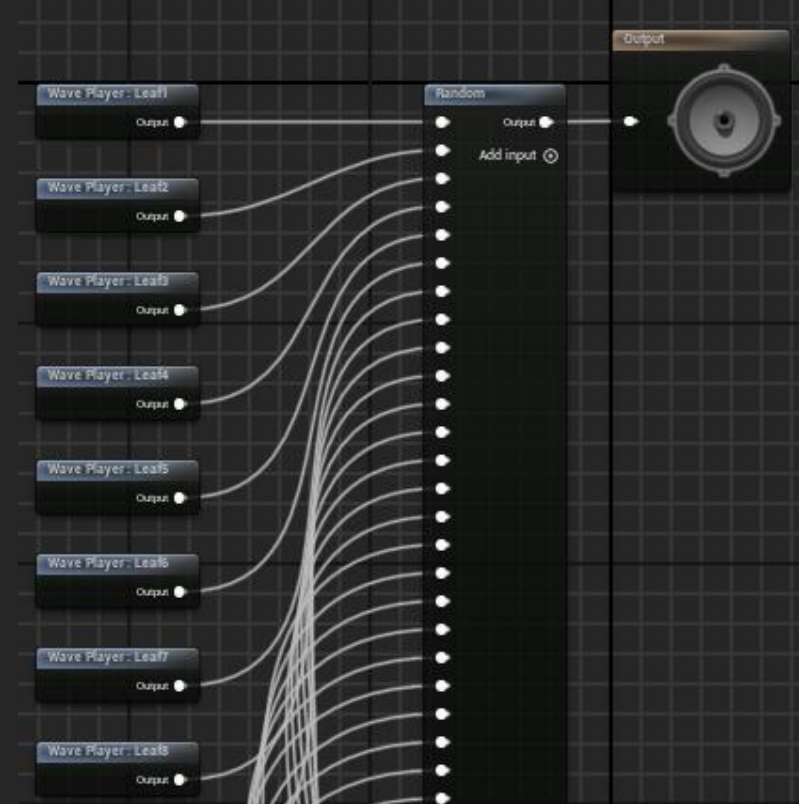
▼ FootstepsAlpha

External Curve [None] [undo] [redo] [close] [pan] [zoom]

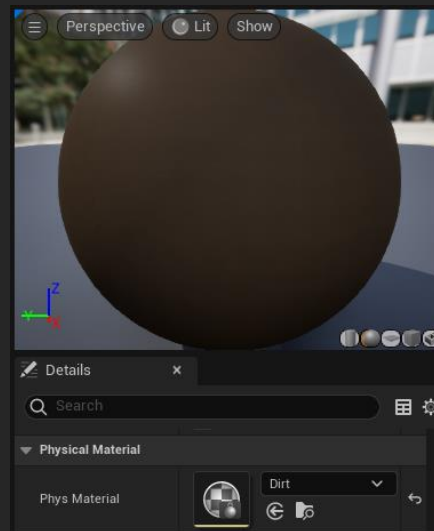
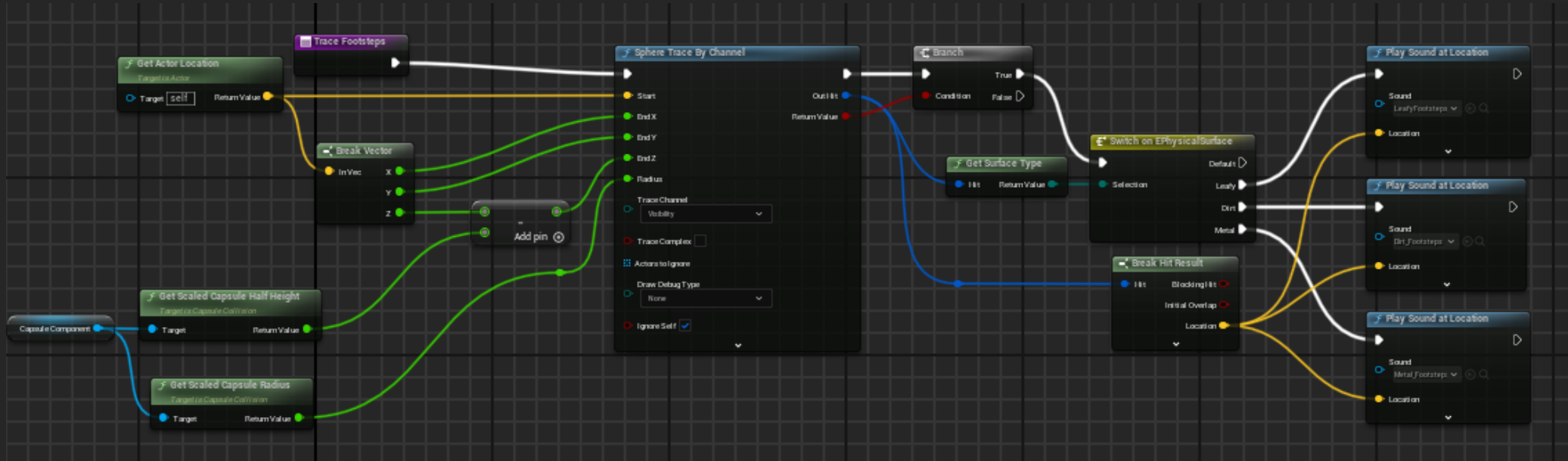
☒ Synchronize View

↑↓ Reorder

0.00 [horizontal timeline] 0.00

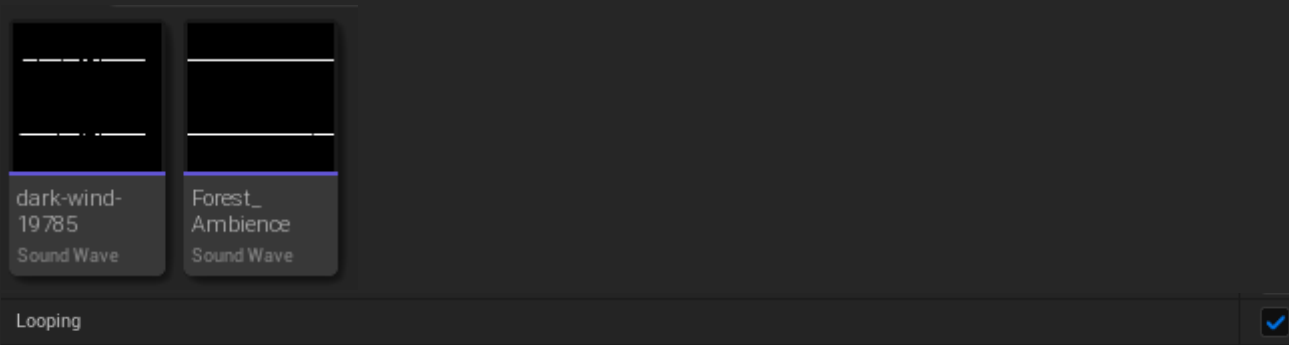


Physical Material



Background Ambience

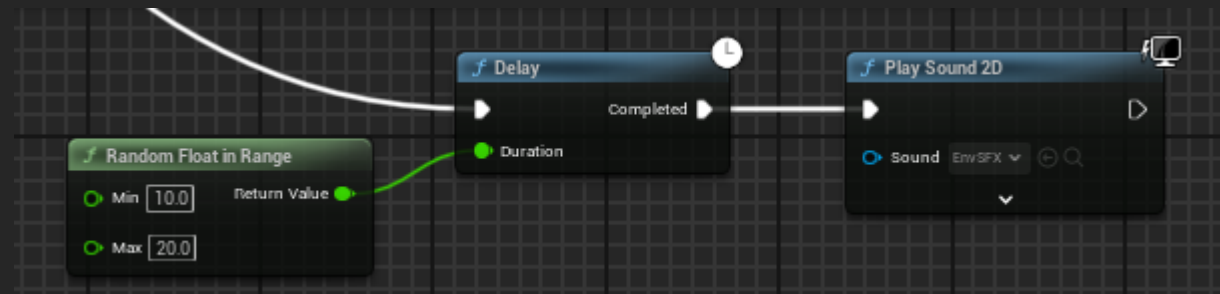
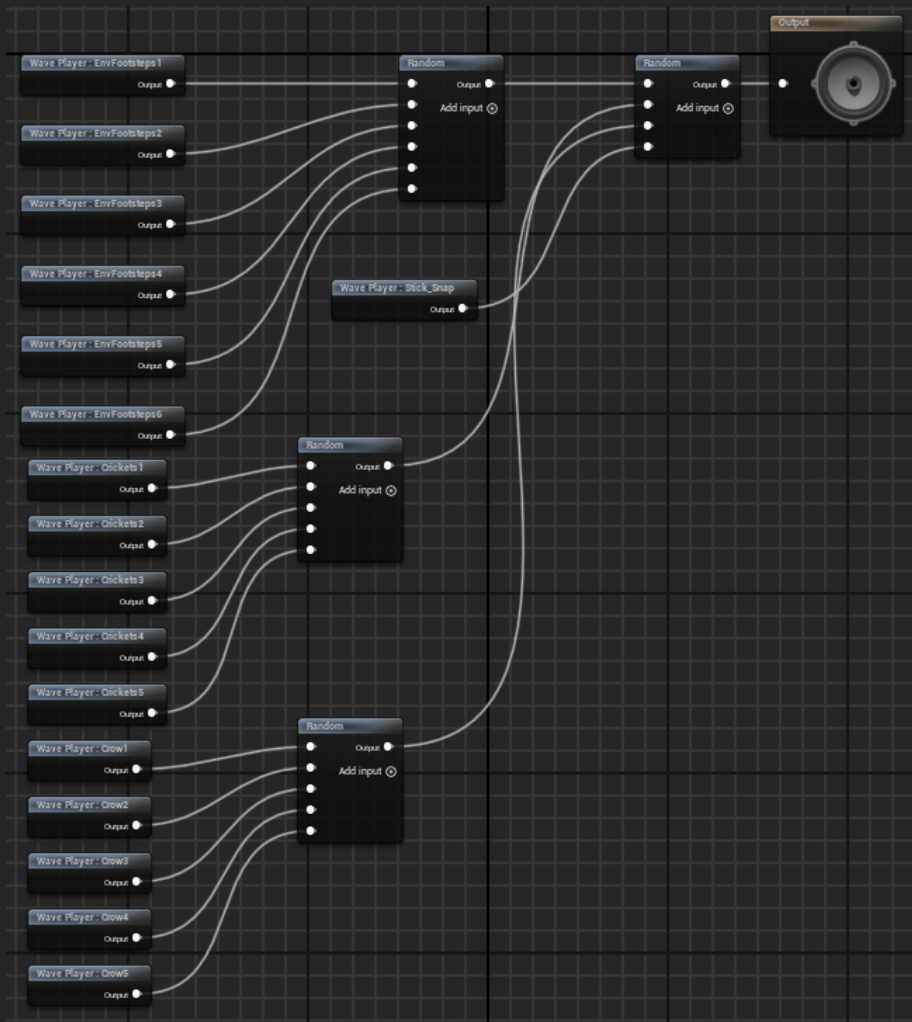
Combination of Haunted Forest track with dark wind



Haunted Forest track on YouTube

<https://www.youtube.com/watch?v=coPN2irc9a4>

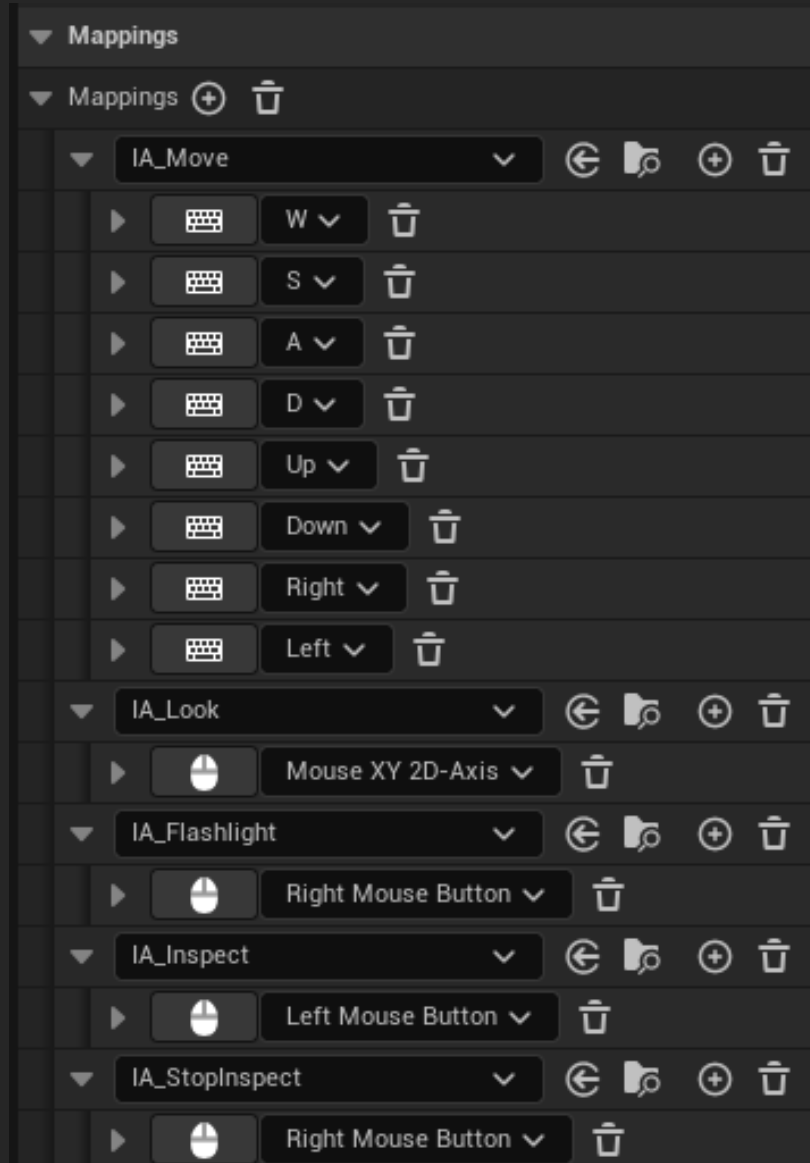
Environment SFX



Gameplay

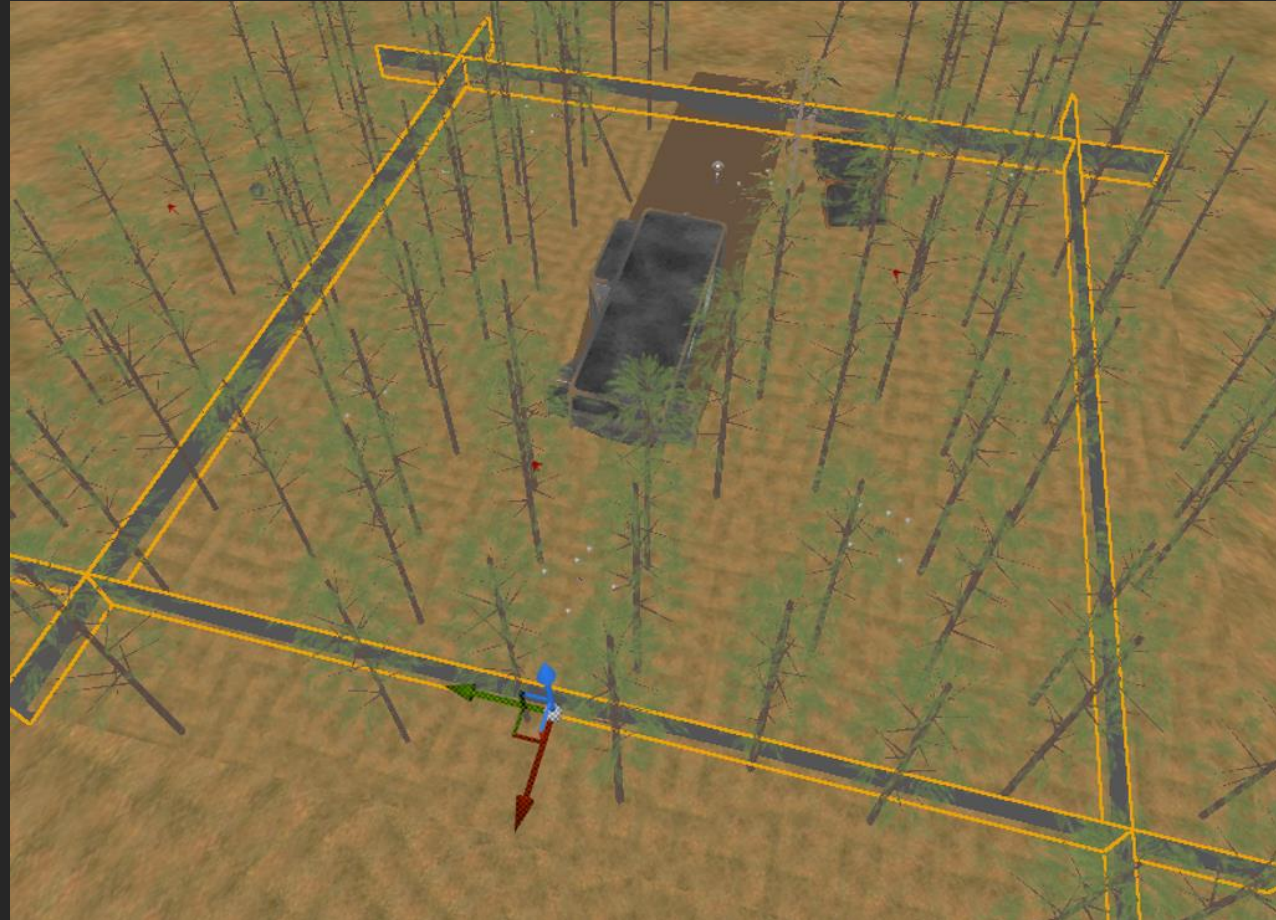
Controls

Slow-paced walk, no jump/crouch/sprint



Gameplay

Boundary

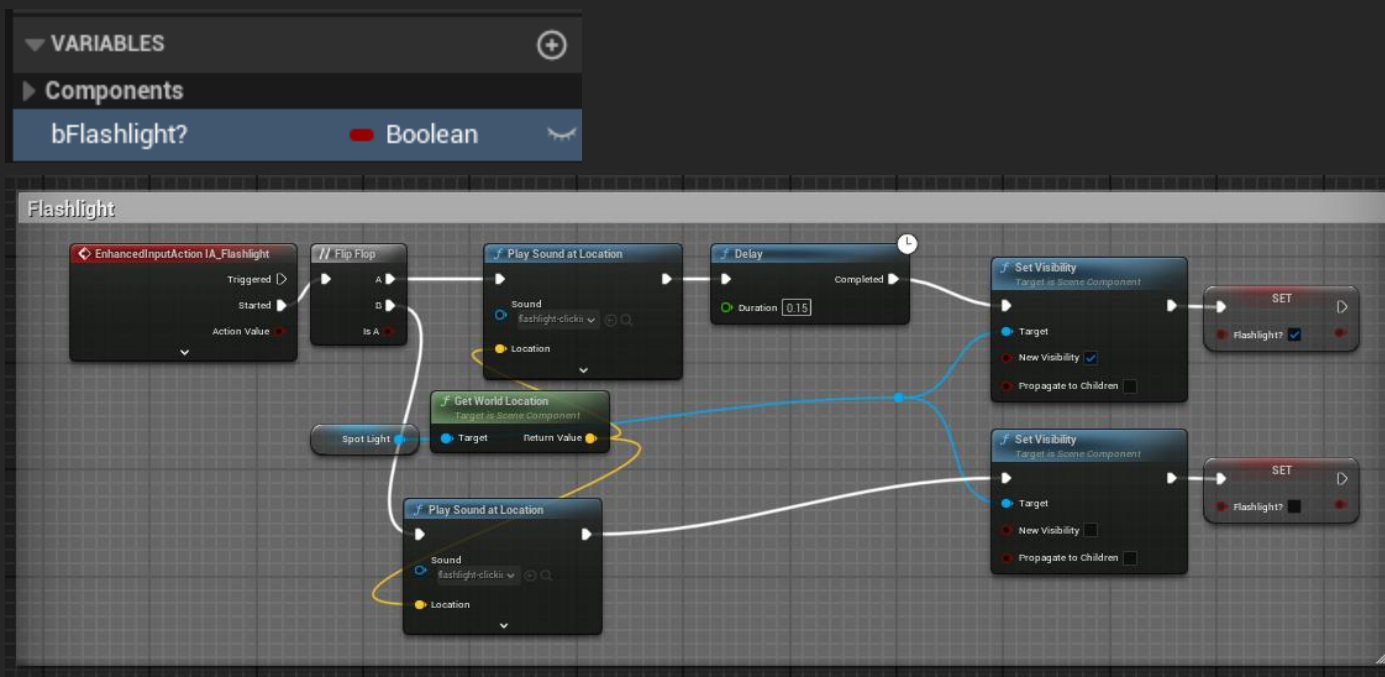
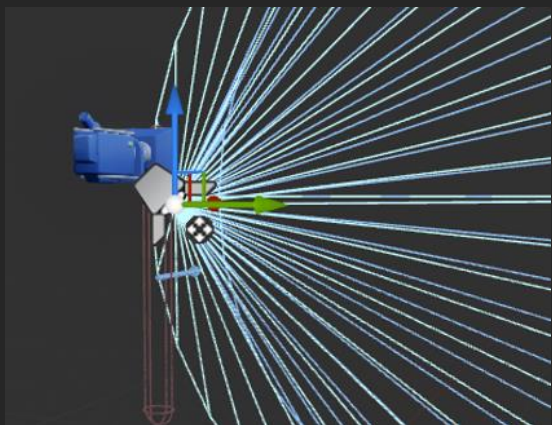


Actor Hidden In Game



Gameplay

Flashlight



Light Function

Light Function Ma...



flashlightb ▾



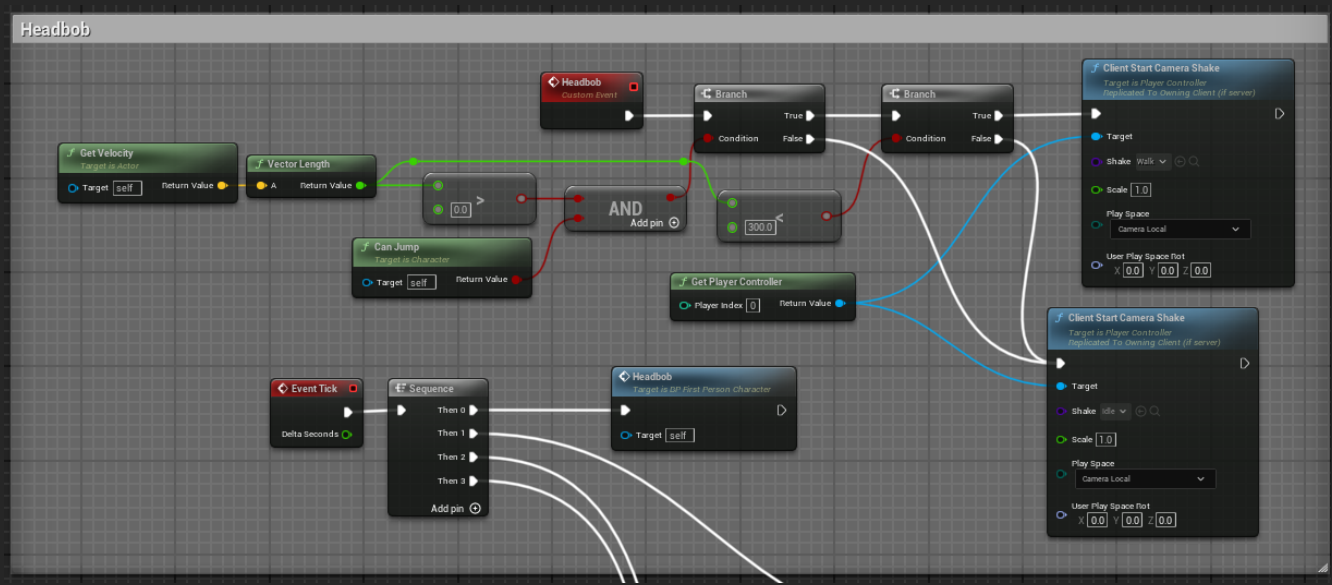
Gameplay

Head bob

Walk

Idle

▼ Oscillation		
Oscillation Duration	0.25	↶
Oscillation Blend in Time	0.1	
Oscillation Blend Out Time	0.2	
▼ Rot Oscillation		
▼ Pitch		
Amplitude	0.6	↶
Frequency	7.5	↶
Initial Offset	Random	▼
Waveform	Sine Wave	▼
▼ Yaw		
Amplitude	0.4	↶
Frequency	6.0	↶
Initial Offset	Random	▼
Waveform	Sine Wave	▼
▼ Roll		
Amplitude	0.4	↶
Frequency	3.0	↶
Initial Offset	Random	▼
Waveform	Sine Wave	▼



▼ Oscillation		
Oscillation Duration	0.25	↶
Oscillation Blend in Time	0.1	
Oscillation Blend Out Time	0.2	
▼ Rot Oscillation		
▼ Pitch		
Amplitude	0.5	↶
Frequency	5.0	↶
Initial Offset	Random	▼
Waveform	Sine Wave	▼
▼ Yaw		
Amplitude	0.4	↶
Frequency	3.0	↶
Initial Offset	Random	▼
Waveform	Sine Wave	▼
▼ Roll		
Amplitude	0.2	↶
Frequency	1.0	↶
Initial Offset	Random	▼
Waveform	Sine Wave	▼

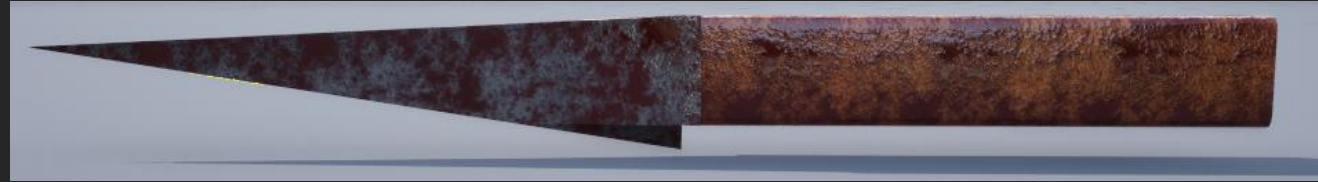
Gameplay

Interactable Objects



Interactable Objects

Bloody Knife



Interactable Objects

Jaw-less Skull



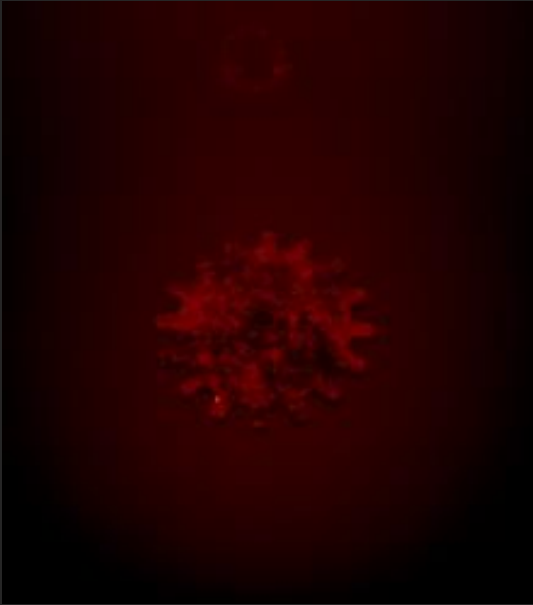
Interactable Objects

Gravestone



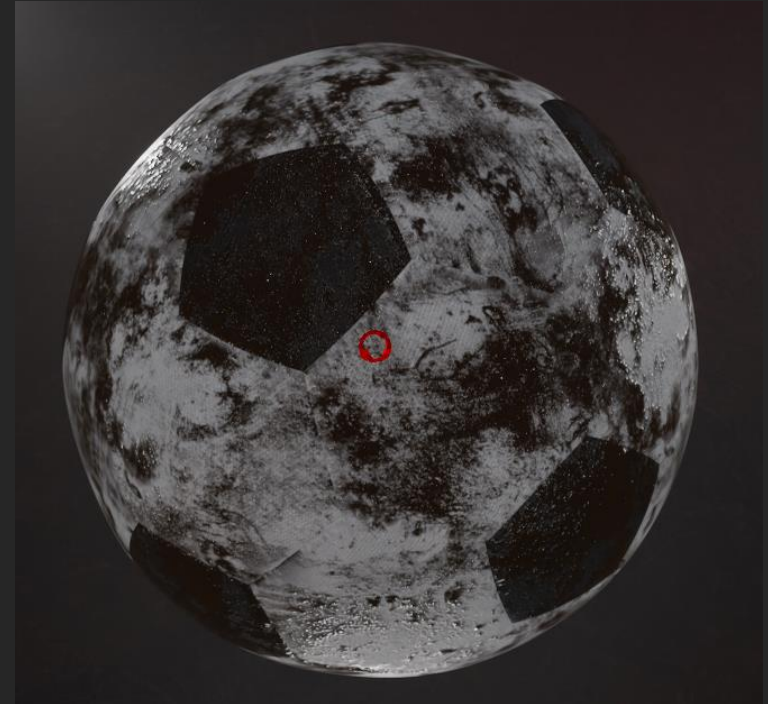
Interactable Objects

Gear



Interactable Objects

Football



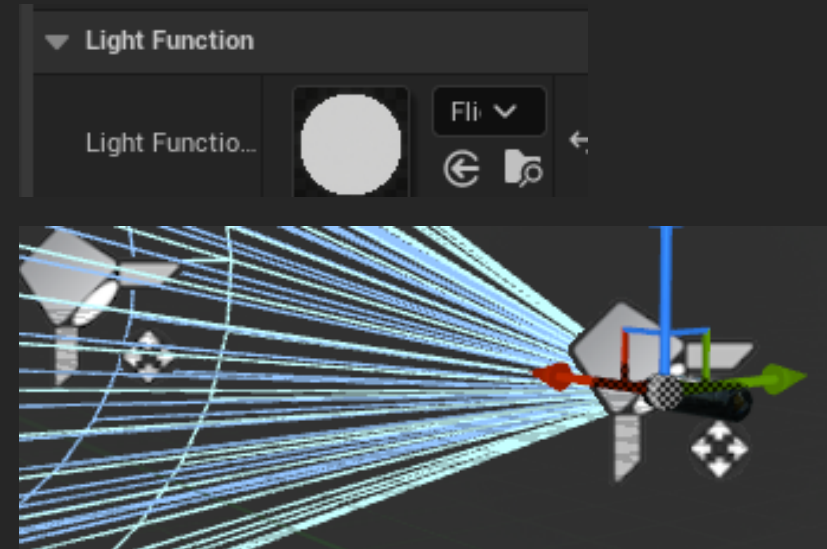
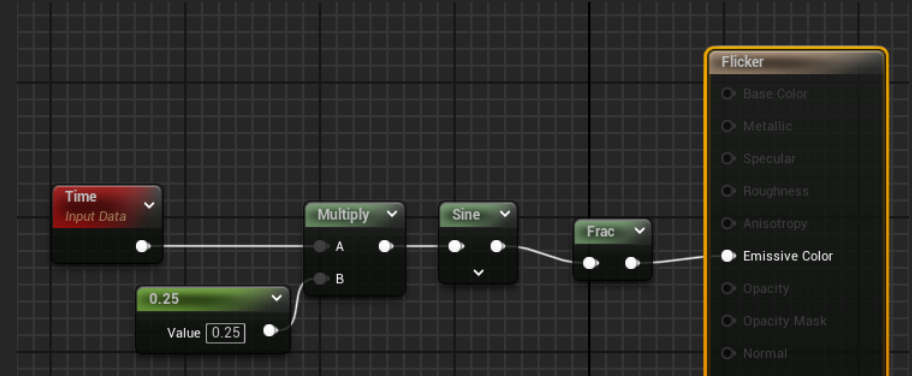
Interactable Objects

Baseball Cap



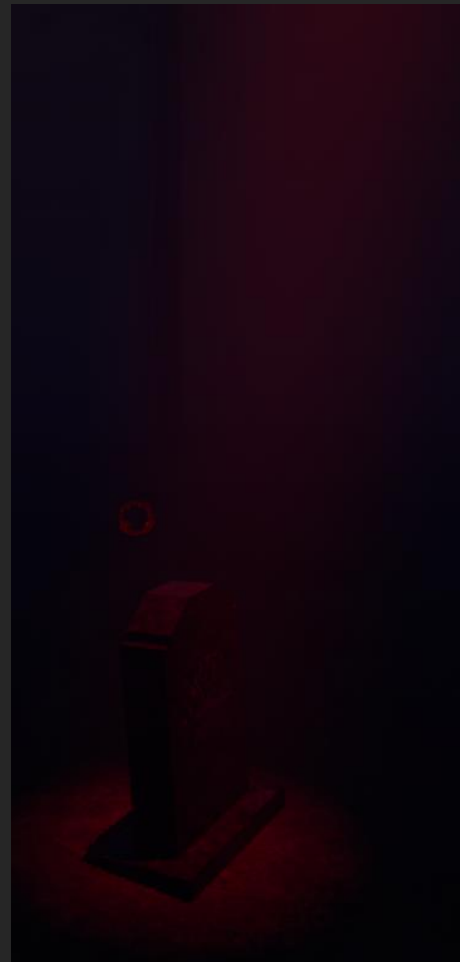
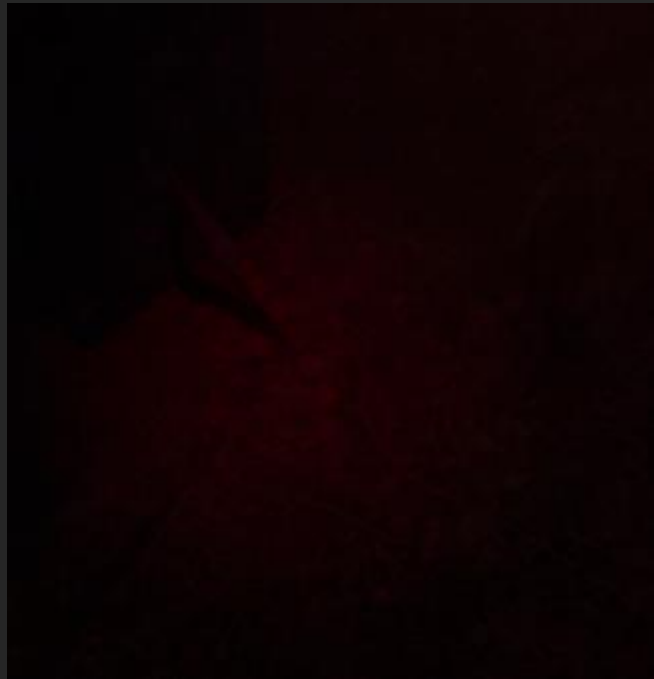
Interactable Objects

Flashlight



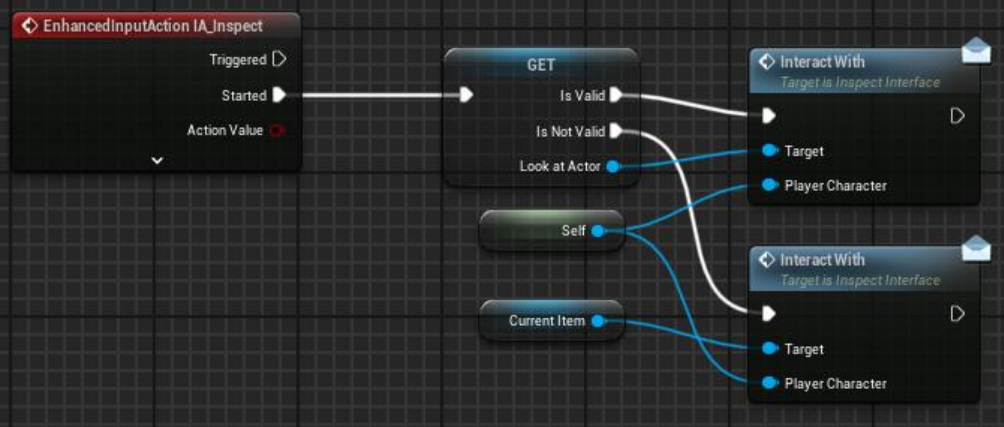
Interactable Objects

Red Light

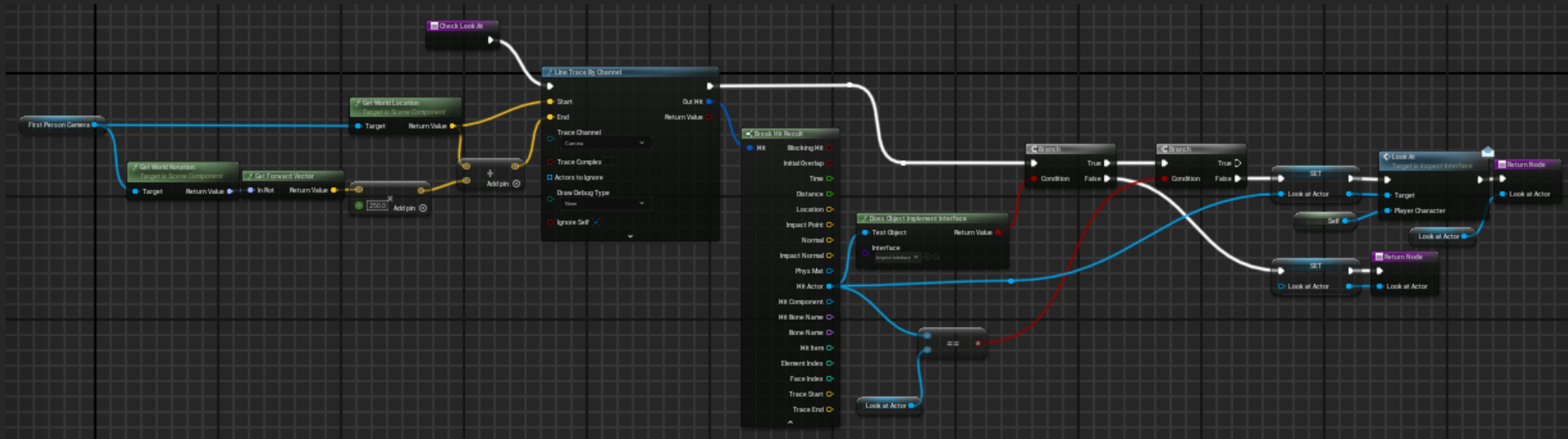


Interactable Objects Blueprints

Setup inspect event



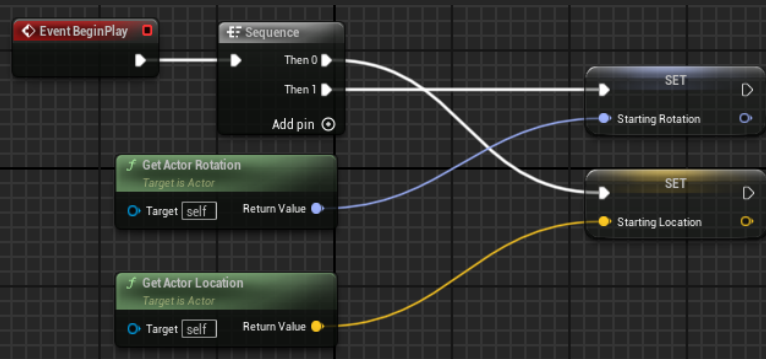
Check Look At function



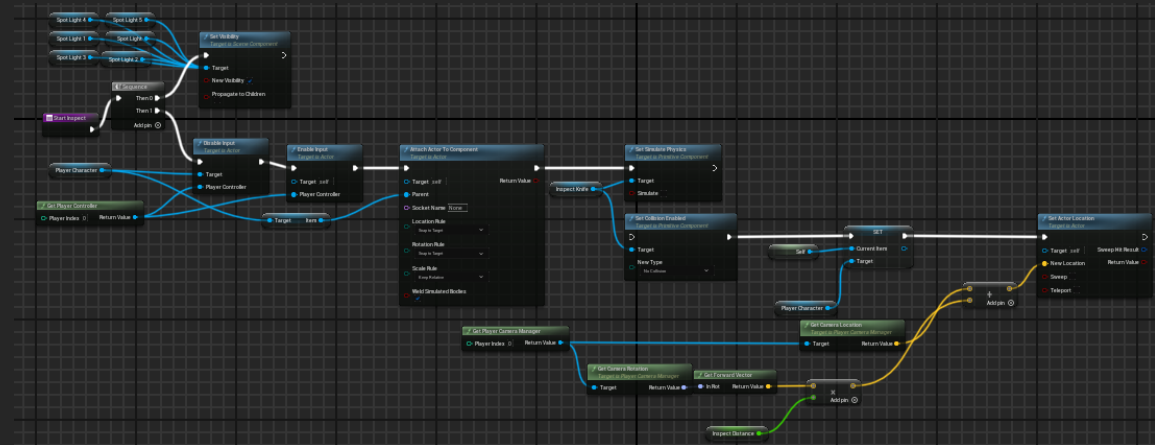
Interactable Objects

Parent Blueprint

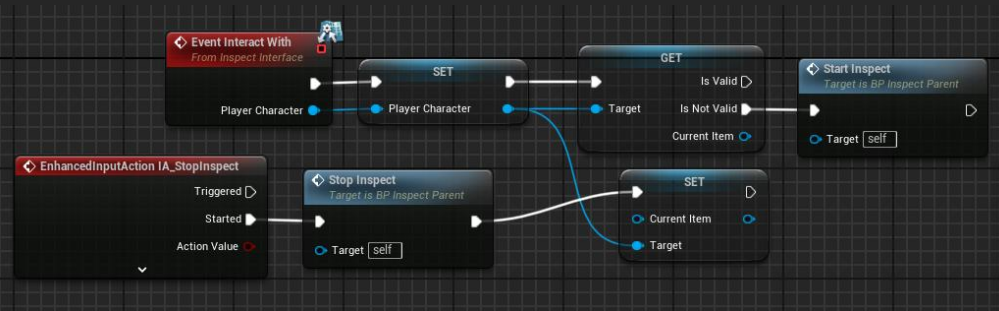
Setup Location and Rotation variables in character graph



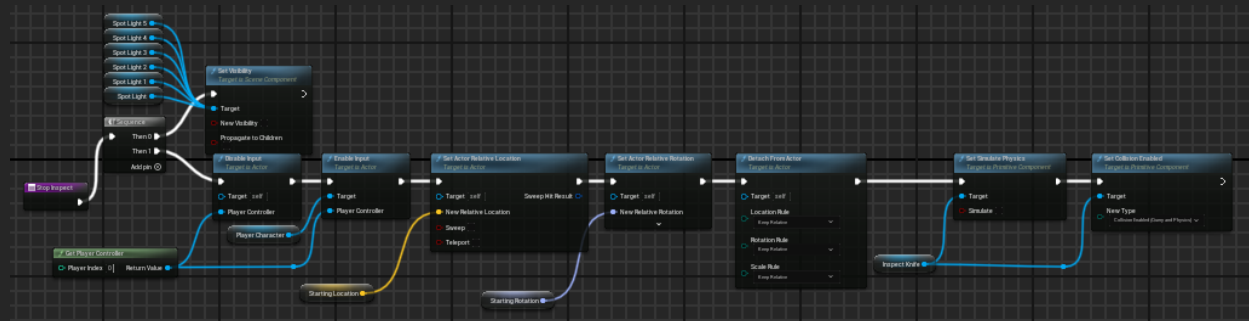
Start inspect function



Setup Inspect Start and Stop events

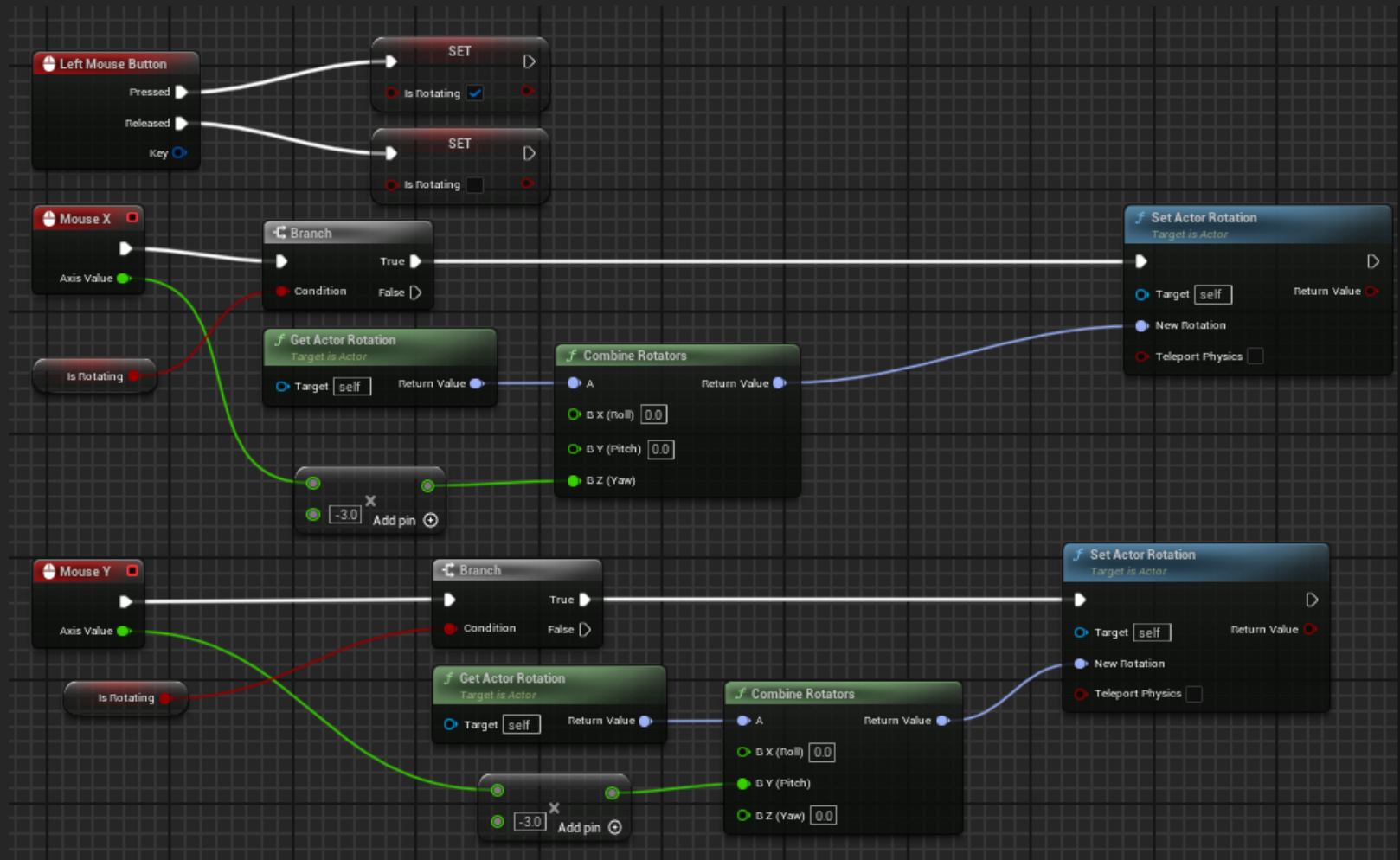


Stop inspect function



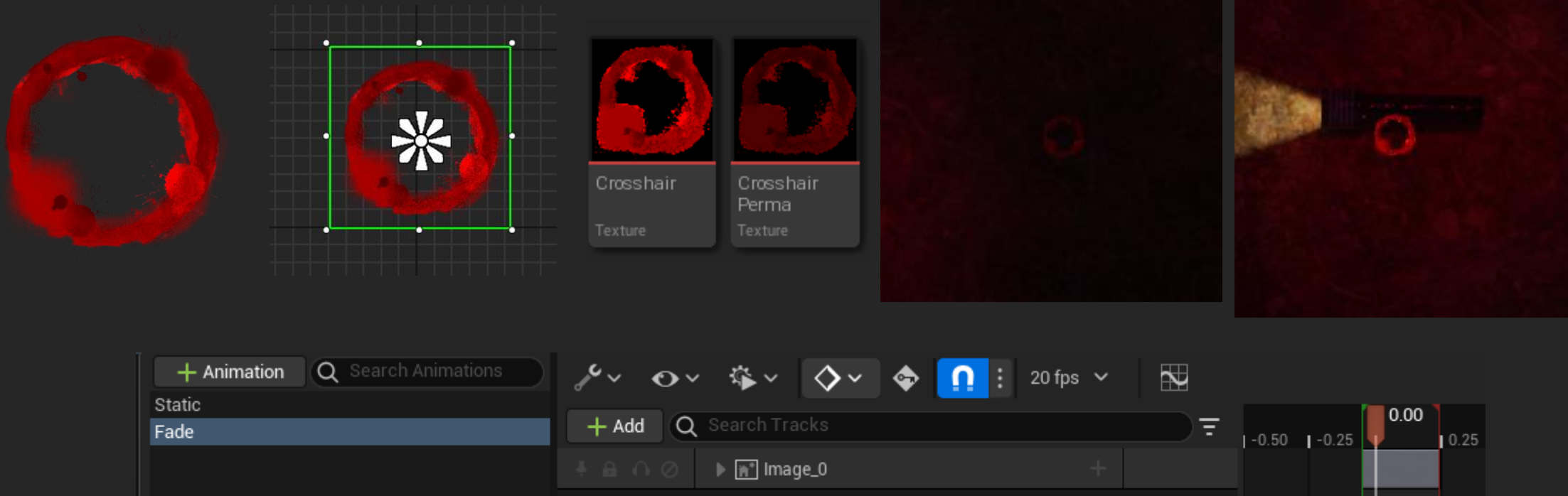
Interactable Objects

rotation



Gameplay

Cursor



Halloween Blood PNG Designed By Heyhams from
https://pngtree.com/freepng/creepy-circle-frame-with-fresh-blood_6788110.html?sol=downref&id=bef

Organisation

Objects

SFX

Textures

Bloody Tree.spp

Bloody Tree_autosave_0.spp

Bloody Tree_autosave_1.spp

Cap.spp

Objects

Cylinders

Flowers

Pipes

Pods

Pods with Pipes

Terrain.fbm

Trees

Cap.fbx

Cylinder.fbx

Tree Blood

Tree1

Tree2

Tree3

Tree4

Tree5

Tree6

Tree7

Tree8

Textures

Cap

Cylinder1

Cylinder2

Cylinder3

Cylinder4

Cylinder5

Cylinder6

Cylinder7

Cylinder8

Flashlight

Football

Forest Leaves

Gear

Grave

Sound Effects

Atmosphere

Charcter

Atmosphere

Ambience

Crickets

Crow

Environment Footsteps

Stick Snap.mp3

Character

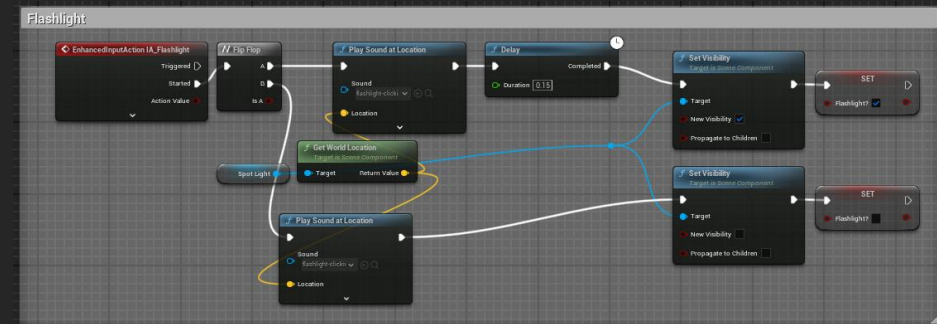
Dirt Footsteps

Leaf Footsteps

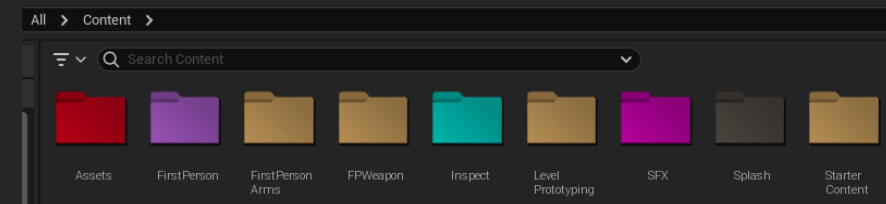
Metal Footsteps

flashlight-clicking-on-105809.mp3

Categorised 'some' functions

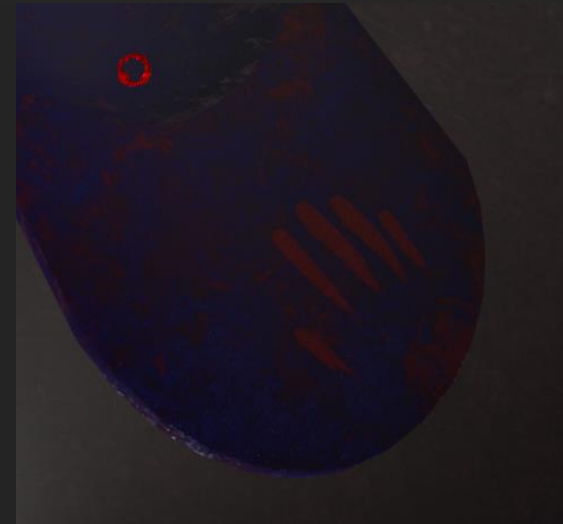
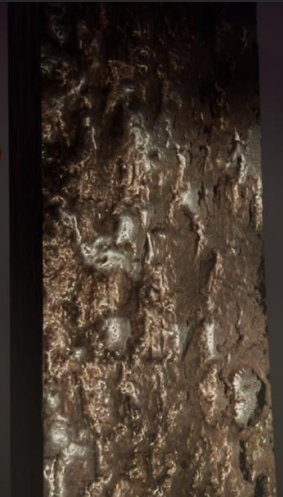
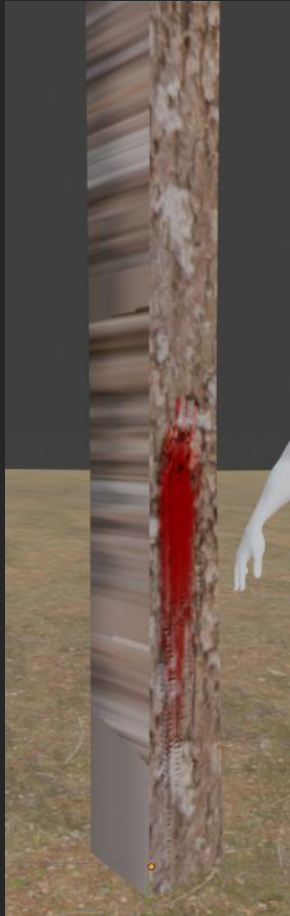


Used folders colour coded



Main Problems Encountered

Bloody Tree + Alphas



Padding

- ☐ Export USD asset
- ☐ Export shaders parameters

No padding (passthrough)

16

No padding (passthrough)

Dilation infinite

Dilation + transparent

Dilation + default background color

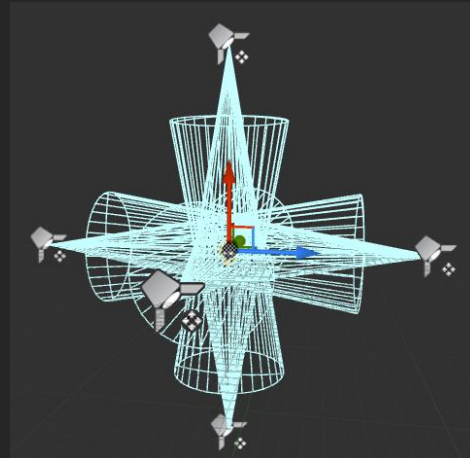
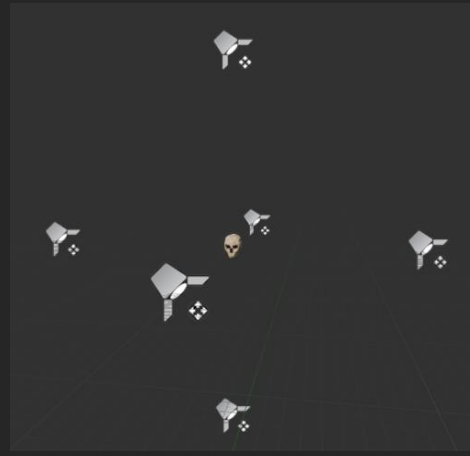
Dilation + diffusion

Main Problems Encountered

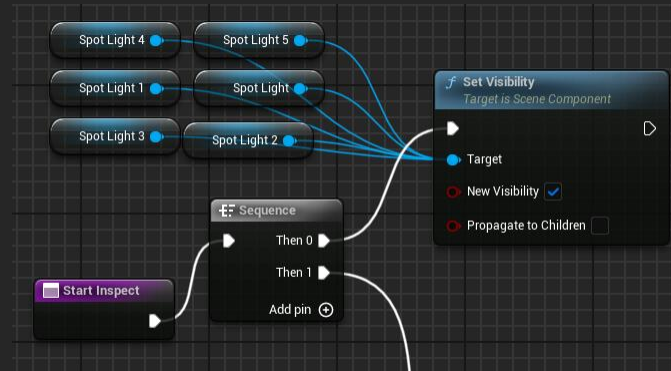
Couldn't Make 3D Sounds Randomly Play in Environment

Main Problems Encountered

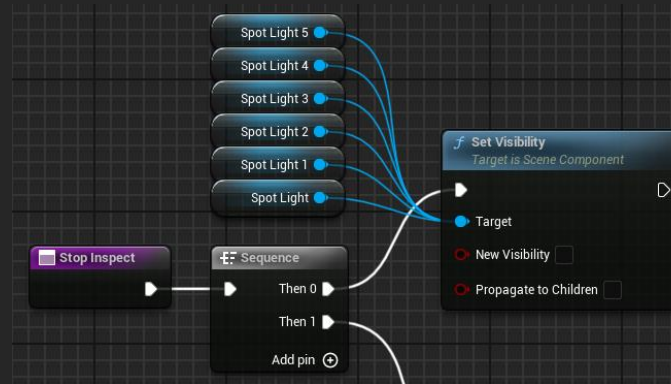
Inspecting Items Too Dark



Start Inspect function



Stop Inspect function

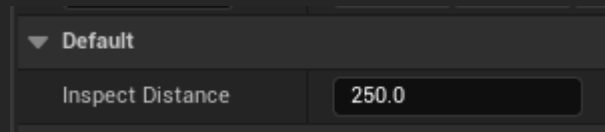


Main Problems Encountered

Gravestone Inspecting Clipped Into Player

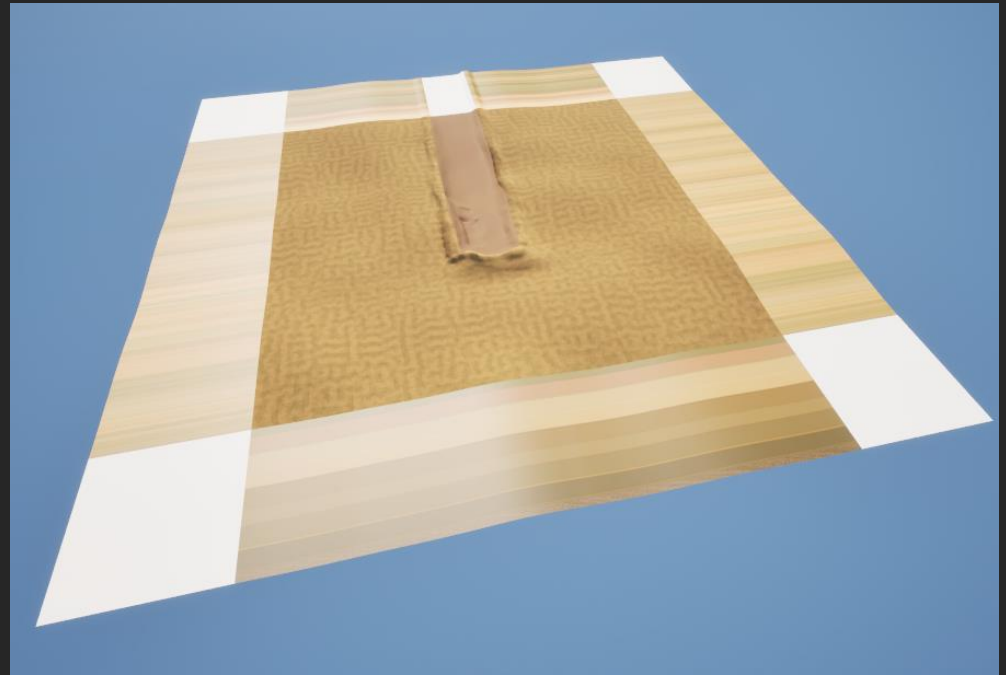


Inspect Distance variable



Main Problems Encountered

Can see world border



Main Problems Encountered

Couldn't Build Project – Coding Error

```
UATHelper: Packaging (Windows): Log file: C:\Users\Telos\AppData\Roaming\Unreal Engine\AutomationTool\Logs\D+UE_5.4\UBA-HorrorWoods-Win64-Shipping.txt
UATHelper: Packaging (Windows): Cleaning HorrorWoods binaries...
UATHelper: Packaging (Windows): Visual Studio 2022 is installed, but is missing the C++ toolchain. Please verify that the "MSVC v143 - VS 2022 C++ x64/x86 build tools (Latest)" component is selected in the Visual Studio 2022 installation options.
UATHelper: Packaging (Windows): UnrealBuildTool has banned the MSVC 14.39.33519-14.39.99999 toolchains due to compiler issues. Please install a different toolchain such as 14.38.33130 by opening the generated solution and installing recommended components or from th
UATHelper: Packaging (Windows): Took 3.18s to run dotnet.exe, ExitCode=6
UATHelper: Packaging (Windows): UnrealBuildTool failed. See log for more details. (C:\Users\Telos\AppData\Roaming\Unreal Engine\AutomationTool\Logs\D+UE_5.4\UBA-HorrorWoods-Win64-Shipping.txt)
UATHelper: Packaging (Windows): AutomationTool executed for 0h 0m 7s
UATHelper: Packaging (Windows): AutomationTool exiting with ExitCode=6 (6)
UATHelper: Packaging (Windows): BUILD FAILED
PackagingResults: Error: Unknown Error
```

 **Packaging failed!**
[Show Output Log](#)

```
Search Log Filters
xe"
UATHelper: Packaging (Windows): Log file: C:\Users\Telos\AppData\Roaming\Unreal Engine\AutomationTool\Logs\D+UE_5.4\UBA-HorrorWoods-Win64-Shipping.txt
UATHelper: Packaging (Windows): Cleaning HorrorWoods binaries...
UATHelper: Packaging (Windows): Took 1.12s to run dotnet.exe, ExitCode=0
UATHelper: Packaging (Windows): Running: D:\UE_5.4\Engine\Binaries\ThirdParty\DotNet\6.0.302\windows\dotnet.exe "D:\UE_5.4\Engine\Binaries\DotNET\UnrealBuildTool\UnrealBuildTool.dll" HorrorWoods Win64 Shipping -Project="C:\Users\Telos\
UATHelper: Packaging (Windows): Log file: C:\Users\Telos\AppData\Roaming\Unreal Engine\AutomationTool\Logs\D+UE_5.4\UBA-HorrorWoods-Win64-Shipping_2.txt
UATHelper: Packaging (Windows): Creating makefile for HorrorWoods (no existing makefile)
UATHelper: Packaging (Windows): Writing manifest to C:\Users\Telos\Documents\Unreal Projects\HorrorWoods\Intermediate\Build\Manifest.xml
UATHelper: Packaging (Windows): ERROR: Non-editor build cannot depend on non-redistributable modules. C:\Users\Telos\Documents\Unreal Projects\HorrorWoods\Binaries\Win64\HorrorWoods-Win64-Shipping.exe depends on 'DesktopPlatform'.
UATHelper: Packaging (Windows): Dependant modules "RenderDocPlugin"
PackagingResults: Error: Non-editor build cannot depend on non-redistributable modules. C:\Users\Telos\Documents\Unreal Projects\HorrorWoods\Binaries\Win64\HorrorWoods-Win64-Shipping.exe depends on 'DesktopPlatform'.
UATHelper: Packaging (Windows): Total execution time: 12.36 seconds
UATHelper: Packaging (Windows): Non-editor build cannot depend on non-redistributable modules.
UATHelper: Packaging (Windows): Took 12.46s to run dotnet.exe, ExitCode=6
UATHelper: Packaging (Windows): UnrealBuildTool failed. See log for more details. (C:\Users\Telos\AppData\Roaming\Unreal Engine\AutomationTool\Logs\D+UE_5.4\UBA-HorrorWoods-Win64-Shipping_2.txt)
UATHelper: Packaging (Windows): AutomationTool executed for 0h 0m 16s
UATHelper: Packaging (Windows): AutomationTool exiting with ExitCode=6 (6)
UATHelper: Packaging (Windows): BUILD FAILED
PackagingResults: Error: Unknown Error
```

 **Packag**
[Show Out](#)

Unreal Engine 5.4

File Edit View Git Project Debug Test Analyze Tools Extensions Window Help Search Unreal Pr

No Configurations Select Startup Item...

SharedDefinitions.Engine.Cpp20.h HorrorWoods.exp

Miscellaneous Files - No Configurations (Global Scope)

```
#define INTEL_ISPC 1
#define CHAOS_MEMORY_TRACKING 0
#define CHAOS_API
#define VORONOI_API
#define GEOMETRYCORE_API
#define CHAOSVRUNTIME_API
#define SIGNALPROCESSING_API
#define AUDIOEXTENSIONS_API
#define AUDIOIMXCORE_API
#define AUDIOIMXER_API
#define TARGETPLATFORM_API
#define TEXTUREFORMAT_API
#define DESKTOPPLATFORM_API
#define AUDIOLINKENGINE_API
#define AUDIOLINKCORE_API
#define COOKONTHEFLY_API
#define NETWORKING_API
#define IOSTOREONDEMAND_API
#define CLOTHINGSYSTEMRUNTIMEINTERFACE_API
#define IRISCORE_API
#define MOVIESCENECAPTURE_API
#define RENDERER_API
#define TYPEDELEMENTFRAMEWORK_API
#define TYPEDELEMENTRUNTIME_API
```

Find "DesktopPlatform"

All Files Group by: Path then File Keep Results List View Repeat

Find all "DesktopPlatform", Entire Workspace, ""\bin\;"\obj\;"\..\\" Code

C:\Users\Telos\Documents\Unreal Projects\HorrorWoods (34)

Intermediate\Build\Win64\Win64\HorrorWoods (20)

Development (10)

Engine (9)

SharedDefinitions.Engine.Cpp20.h (1)

```
#define DESKTOPPLATFORM_API
```

SharedDefinitions.Engine.Exceptions.Cpp20.h (1)

```
#define DESKTOPPLATFORM_API
```

SharedDefinitions.Engine.RTTI.Exceptions.Cpp20.h (1)

```
#define DESKTOPPLATFORM_API
```

SharedPCH.Engine.Cpp20.h.obj.rsp (2)

```
//Developer\DesktopPlatform\Public"
//Developer\DesktopPlatform\Internal"
```

SharedPCH.Engine.Exceptions.Cpp20.h.obj.rsp (2)

```
//Developer\DesktopPlatform\Public"
//Developer\DesktopPlatform\Internal"
```

SharedPCH.Engine.RTTI.Exceptions.Cpp20.h.obj.rsp (2)

```
//Developer\DesktopPlatform\Public"
```

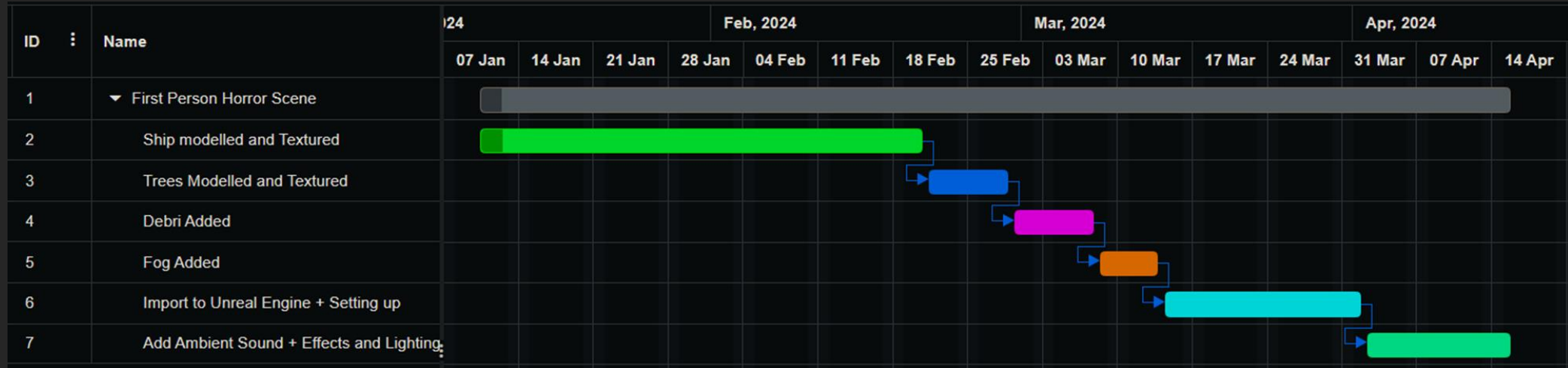
Matching lines: 34 Matching files: 22 Total files searched: 3279

Ready

10°C Mostly cloudy

What I'd Do Differently Next Time

Stick to and utilise the Gantt Chart



Would allow more time to fix quality of life issues, such as cursor being visible during inspection and add blood to terrain ground

What I'd Do Differently Next Time

Have a thorough plan, including a full asset list

What I'd Do Differently Next Time

Plan out world and play border sooner in Unreal

Thank You For Listening!

Link to Showcase Video -- <https://youtu.be/uB7gA9rCVxg>

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