Group 3

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# MouseTrap – RealTime Material Doc

Material Pipeline Outline

Our materials will be developed in a Metal/Roughness Workflow And the standard Lit shader. Custom shader are not within the budget or scope of the project.

Albedo - this is our base color input. sRGB ranges 30 – 240 (avg)

Micro surface – Not Used. At this point is our project microscopic details of roughness are not apparent enough to warrant this inclusion.

Reflectivity – reflectivity values based on F0 (Fresnel values for dielectrics) and metal surfaces. Except for the light saber handles nothing else is metallic in the scene.

Metalness-map - a black and white map that indicated metal in the material. White denotes metal, while black is dielectric. All gray values in between are a blend of the two. All our materials will have a black metalness map, except for the saber handle.

Smoothness map - controls how smooth a material is. Again with no metal values in the project this value is not used.

Normal Map: The normal direction as each pixel is stored in this map. This creates the illusion of detail.

This map will be used more in the saber handle where details where not created in the mesh creation process.

We will make use of this map for the mousetrap environment, where not all details were sculpted into the mesh.

We will also be using the normal maps to for the characters to emphasize their clothing details.

Ambient Occlusion: This map affects the diffuse or base color contribution which is initially lighter toned. Ambient Occlusion maps enable darker details made by light apparent.

Bent Normal Maps: Not Used. Project doesn’t need one.

Height Maps: These maps store pixel displacement information and is used in conjunction with the normal maps. This enables meshes to be really simple at creation.

SSS pipeline for skin and cheese:

Subsurface Scattering works by simulating how light interacts and penetrates translucent objects such as plants. We will be using this work the character skins and cheese assets of our project.

Anisotropy: Not used. This simulates material property changes based on light. Not needed for skin and cheese.

Iridescence: Not used. No iridescent effects in the project.

Specular Color: Not Used.

Translucent: will be used for the light reflectance of the cheese and skin. Variation will be used to mimic real-world values.