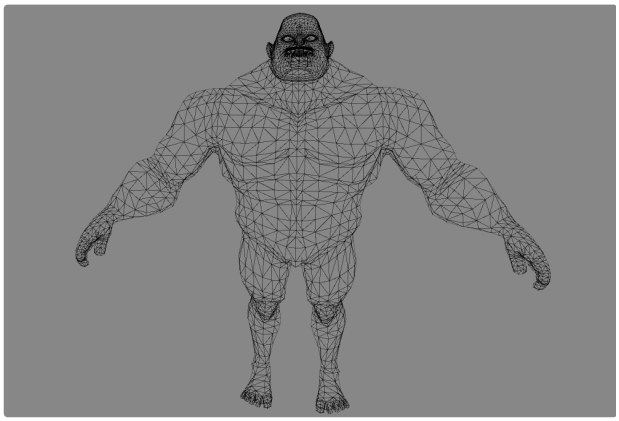
Creating Character - Art Guidelines

Humanlike characters

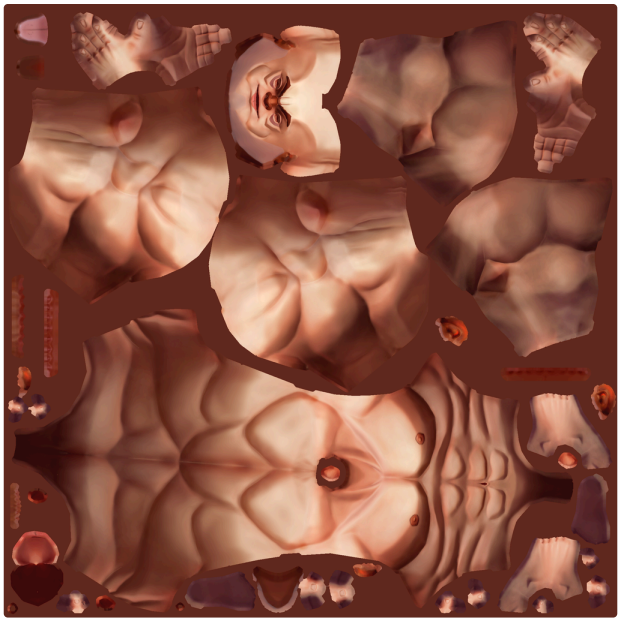
Humanlike characters supports blood splatter, bruises and cuts in the shader, they are also sliceable so it is important that the mesh is capped, 100% solid, no holes in mesh, and no weird non manifold geometry or anything like that.

- Character should be at around 10 000 triangles, one solid mesh



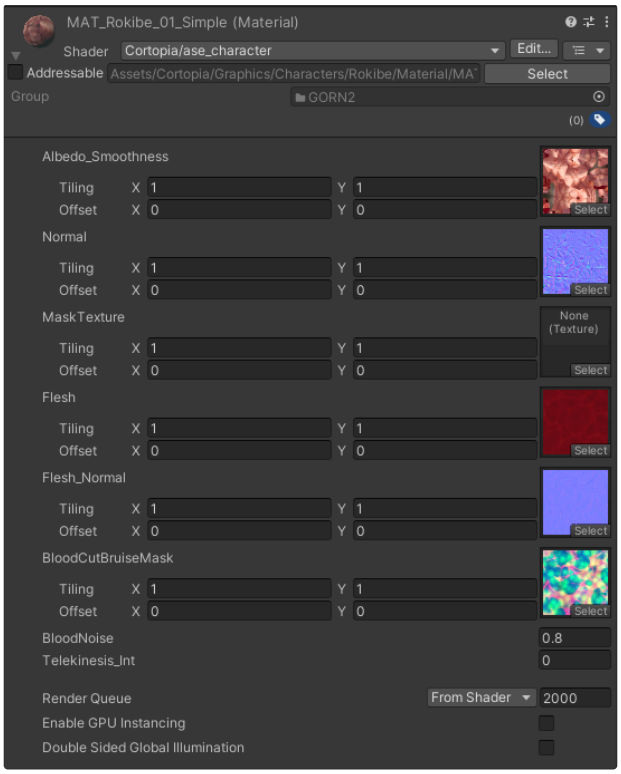
- Characters that are sliceable need to be capped (i.e 100% solid, no holes in mesh)
- Teeth and eyes can be separate mesh renderers, parented to the joints

- Unique UV space in 0-1 if the character shader is used, that shader supports wet and dry blood, and also cuts and bruises
- Albedo texture with smoothness in alpha, and a normal map (if needed)

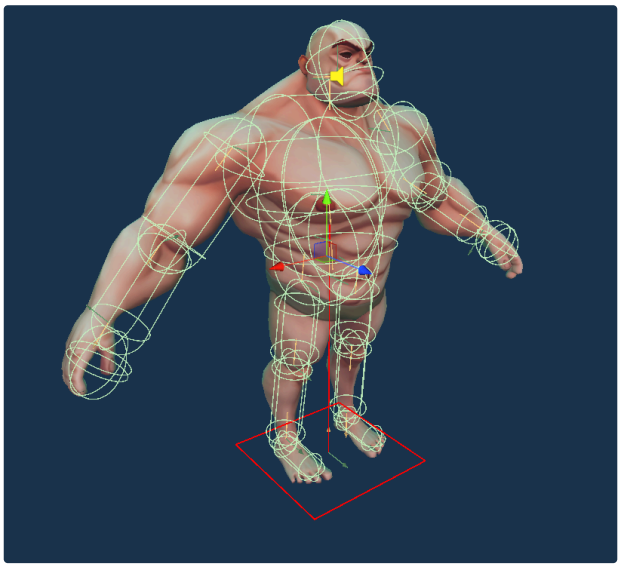


- There need to be at least 16 pixels of padding between uv shells on a 2k texture since the paint mask is so small (<=256 pxls) and it uses uv0 to paint to

- Except for albedo, smoothness and normal map, the character shader also have a flesh slot, holding the textures used for cuts, and also BloodCutBruiseMask holding the break-up mask and textures for Blood (R), Cuts (R), Bruises (B). At game launch a render texture is created used to paint blood, cuts and bruises from weapons to, that is the Mask Texture slot
- The shader used when game launch is the character_slice shader, this holds some additional code for the slicing to work

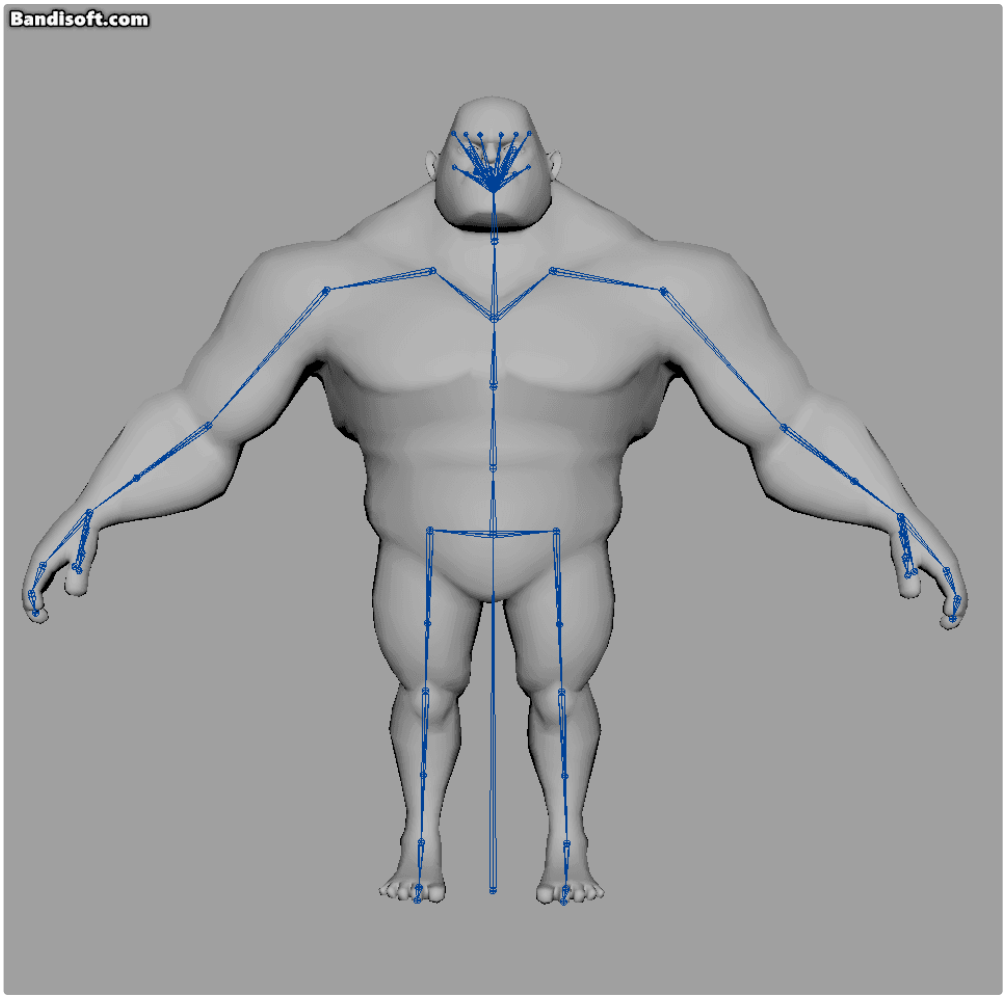


- The painting of blood, cuts and bruises requires the colliders to be pretty close to the render mesh since the particles will collide, paint the set paint radius to the render texture (Mask Texture) and then destroy.



- In the Gorn2 project, we apply physics directly to the skeletons of our characters—for example, for dynamic motion, secondary bone simulation, or ragdoll effects. Because of this, it is essential that all animated models use the **Generic Rig** type rather than the Humanoid or Legacy types

- The **Generic Rig** type preserves the original bone structure exactly as authored, without enforcing Unity's humanoid retargeting or constraints. This is critical when applying physics-based components like Rigidbody, Configurable Joint, or custom bone simulations. With Generic rigs, we have direct access to manipulate and simulate any bone at runtime without interference.



- The generic skeleton ”Human.fbx” used in gorn 2 will be attached in the guidelines folder.