Make game-ready 3D models: low poly, voxel and LODs

Make light game models: Tripo P2 and Meshy Smart Topology at a 3,000 face target, Smart Low Poly, Tripo Retopology v3, voxels with Tripo Stylization and Voxel Crafter, and an LOD chain with Claude Opus 5.5 3D.

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IN SHORT

- A game draws many characters at once, so every triangle counts; always check the count after you generate.
- For a new game model, use Tripo P2 or Meshy Smart Topology; to lighten a model you have, use Tripo Retopology.
- Voxel models are made of cubes, and LODs are lighter copies the engine swaps in at a distance.

You need ✓ A character image, or a heavy model to lighten

✓ A triangle budget for your game

This lesson makes 3D models light enough for a game, with low poly, voxels and LODs.

Why the triangle count matters



A generated model can be very heavy. Tripo 3.1, at its default settings, gave almost one and a half million triangles. That looks great in a render, but a game draws many characters at once, so every triangle counts.

Low poly models



For game models, start with the models made for games: **Tripo P2** and **Meshy T2.5 Smart Topology**. With the same character image and a target of 3,000 faces:

- Tripo P2 landed at about 3,200 triangles, and Meshy at 3,100, with clean, even topology.
- **Tripo 3.1** and **YVO3D** have a **Smart Low Poly** setting. YVO3D landed at 3,200, and Tripo 3.1 went over, at 5,500, so always check the count.

Already have a heavy model? **Tripo Retopology v3** rebuilt the 1.5 million triangle model at about 2,800, with the texture baked onto the new mesh: 500 times lighter.

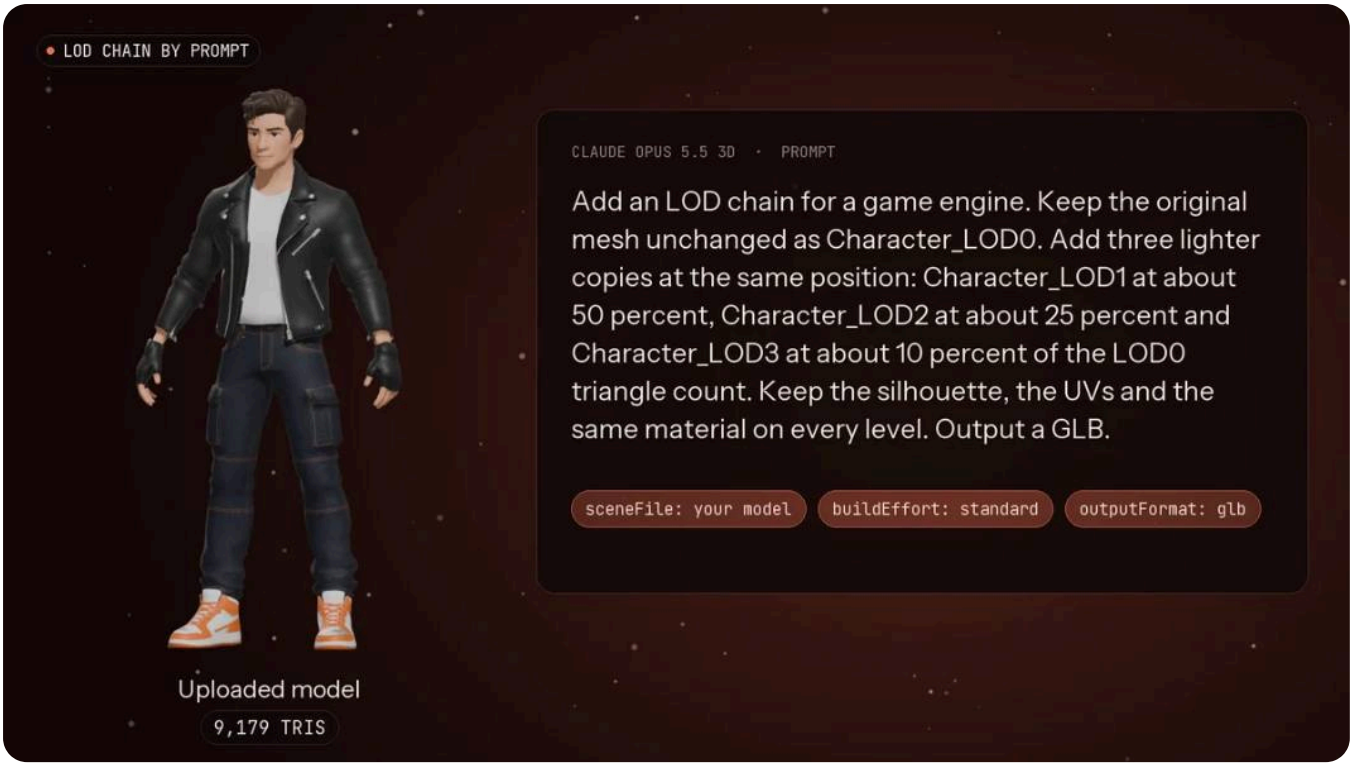
Voxel



Voxel is a game style made of cubes.

- **Tripo Stylization** turns a model you already have into voxels: upload it and pick the voxel style. The character came back at 1,500 triangles.
- **Voxel Crafter** builds voxel models from a prompt or reference images. Set the grid size in width, height and depth, from 16 to 256 blocks.

LODs



LODs, or levels of detail, are lighter copies of the same model. The engine swaps in a lighter copy as the character moves away from the camera.

Claude Opus 5.5 3D builds the chain from a prompt. With copies at 50, 25 and 10 percent, LOD0 is the original at about 9,200 triangles, then 4,600, 2,300 and 916, each named with the LOD suffix that game engines look for.

Which one to use



- A new game model from an image: **Tripo P2** or **Meshy T2.5 Smart Topology**.
- Lighten a model you already have: **Tripo Retopology**.
- A blocky look: **voxels**.
- LODs: ask **Claude Opus 5.5 3D**, or run Retopology once for each level.

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