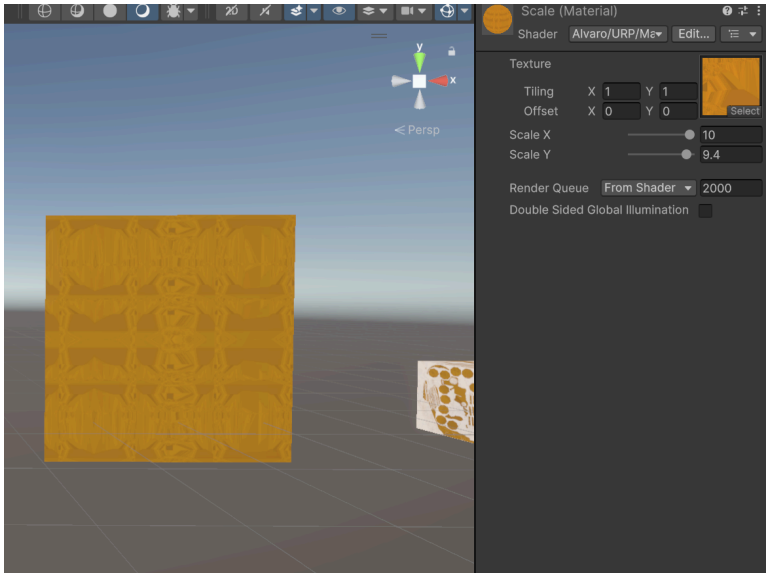
Reflection

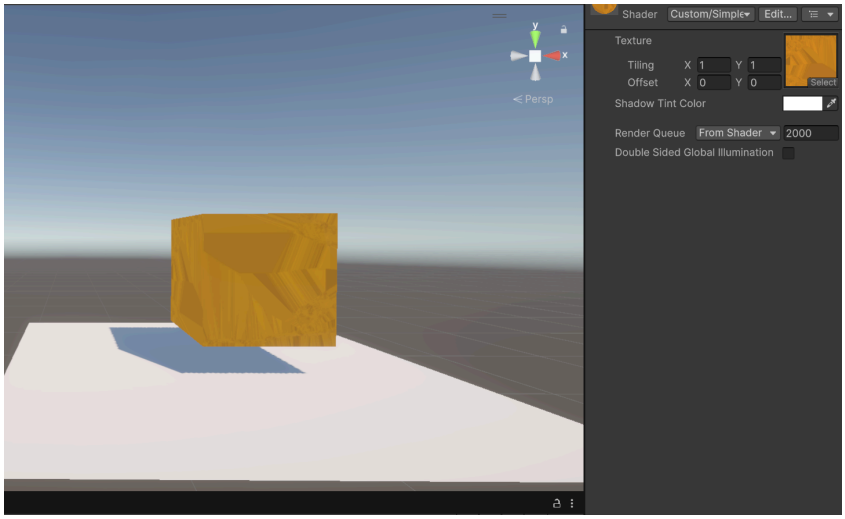
Material Vertex Fragment shader

This shader scales and slightly warps the texture using sine functions on the UV coordinates. It lets you adjust how the texture repeats on a surface through the X and Y scale values, helping to fit or stylize textures better. Essentially, it's a simple UV-scaling shader that modifies texture mapping before displaying it on the model.



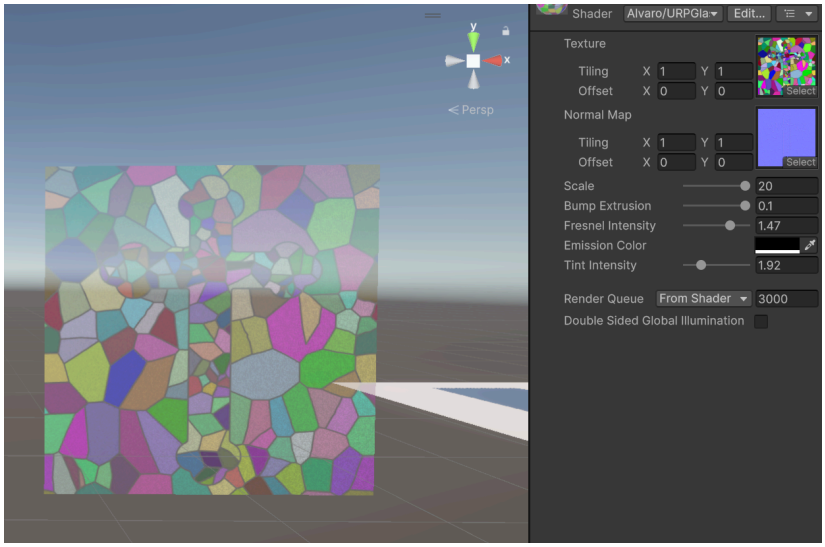
Simple shadow with texture

This shader lets the object keep its natural shadow even when a custom texture or surface material is applied. It combines the object's texture with a tinted shadow color, allowing control over how dark or colored the shadow appears. The first pass renders the object with both texture and shadow tint, while the second pass handles actual shadow casting. In short, it's a shadow-receiving and tinting shader that ensures objects keep realistic shadows while maintaining their own texture.



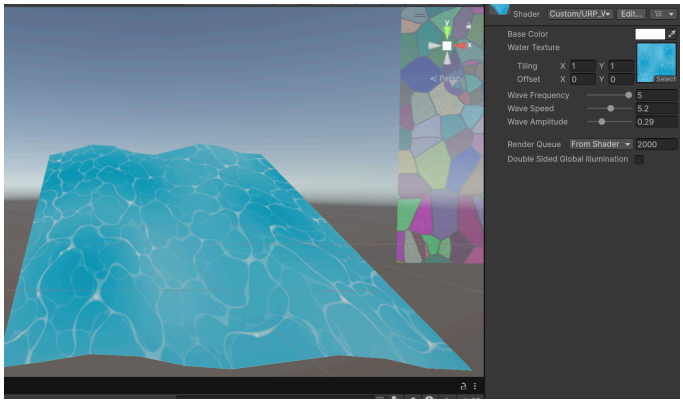
Glass

This shader creates a realistic glass effect by combining transparency, reflection, and Fresnel lighting. It slightly extrudes the mesh along its normals to simulate glass thickness, then uses a normal map to add surface detail. The Fresnel effect makes the edges brighter depending on the viewing angle, enhancing the reflective look. It also samples the background (grab texture) for refraction and applies tint, emission, and brightness control. In short, it's a glass shader that mimics real glass with adjustable depth, tint, and reflection for transparent materials and the texture on it.



Water

This shader simulates moving water by animating the mesh's vertices using a sine wave function. The wave motion is controlled by frequency, speed, and amplitude values, which make the surface rise and fall over time. The fragment shader then applies the water texture and multiplies it with the chosen base color, giving it a tinted, dynamic look. In short, it's a vertex-animated water shader that creates realistic wave motion and color variation for surfaces like oceans, lakes, or ponds.



Water Scrolling

This shader creates an animated water surface by displacing the mesh vertices with a sine wave, giving the illusion of flowing waves. The wave's shape and movement are controlled by the frequency, speed, and amplitude values. In the fragment stage, the water texture is blended with a base color to produce a tinted, lively appearance. Overall, it's a vertex-animated water shader that realistically simulates motion for oceans, rivers, or ponds.