

SculptView3D v1.0

A browser-based 3D model viewer with stereo3D support. Created by Drew Medina

<https://drewmedina.com/> · Freeware

What It Does

SculptView3D lets you drag and drop a 3D model file directly into your browser and inspect it with full rotation, panning, scaling, and lighting controls — no installation, no account, no data sent anywhere. It supports standard and side-by-side stereo 3D viewing modes.

Supported File Formats

Format	Extension	Notes
GL Transmission Format	.glb, .gltf	Preferred format — supports textures, materials, animations
Wavefront OBJ	.obj	Drop alongside .mtl and texture files for full material support
Stereolithography	.stl	Common in 3D printing workflows
Polygon File Format	.ply	Supports color per-vertex
Autodesk FBX	.fbx	Widely used in game and film pipelines
Textures	.png, .jpg, .webp, .bmp, .tga	Drop with your model file together

Tip: For textured OBJ models, select and drop the .obj, .mtl, and all texture image files at the same time. The viewer resolves them automatically.

Getting Started

1. Open `SculptView3D_DrewMedina.html` in a modern web browser (Chrome, Firefox, Edge, or Safari).
 2. Drag your 3D model file (or files) onto the drop zone, or click **Browse files**.
 3. The model loads instantly in your browser. No server. No upload.
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Controls

Mouse

Action	Result
Left drag	Rotate model
Right drag	Pan camera
Middle mouse hold + drag	Pan camera
Scroll wheel	Scale model up / down

Keyboard Shortcuts

View

Key	Action
Escape	Exit SBS mode

Model

Key	Action
T	Toggle texture / flat shading
S	Toggle shadows on / off
0	Scale model up ($\times 1.1$)
9	Scale model down ($\div 1.1$)

Playback

Key	Action
Space	Toggle auto-rotate
1 / 2 / 3 / 4	Rotation speed: slow / medium / fast / superfast

Lighting

Key	Action
Q / W	Key light intensity down / up
E / R	Ambient light intensity down / up

Stereo (SBS mode)

Key	Action
+ / =	Increase eye separation
-	Decrease eye separation
]	Increase convergence distance
[	Decrease convergence distance

Help

Key	Action
K	Toggle in-scene key legend (3D overlay)
? or /	Open keyboard shortcut reference

Viewing Modes

Standard

Default view. Single-camera rendering with full UI and sidebar controls.

SBS Stereo 3D

Side-by-side split rendering for Samsung Odyssey3D monitor, VR headsets or 3D televisions. The in-scene HUD provides stereo controls (eye separation, convergence) without leaving the immersive view.

Settings Sidebar

Open with the  **Settings** button. Contains:

- **Stereo Settings** — eye separation and convergence distance sliders
- **Lighting** — ambient intensity, key light intensity, background brightness; color pickers for ambient, key, fill, and rim lights
- **Display** — wireframe toggle, grid toggle, shading mode (Textured / Flat / MatCap), model scale slider
- **Rotation Axis Lock** — X, Y, Z toggle buttons to prevent rotation on individual axes; **↑ Set View as Rotation Origin** resets the rotation reference to the current view so Y-drag spins correctly

- **Quick Orient** — six one-click presets (Front, Back, Left, Right, Top, Bottom) to snap a wrong-facing model into alignment
- **Model Info** — format, mesh count, vertex count, triangle count

Fixing a Wrong-Facing Model

Some models load sideways or upside-down. To correct the rotation behaviour:

1. Click a **Quick Orient** preset until the model looks right.
 2. Click **↑ Set View as Rotation Origin**.
 3. Drag normally — Y-rotation now spins around the correct visible axis.
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Web Security & Privacy

SculptView3D is a **fully client-side, single-file HTML application**. Understanding what that means for your security:

No Data Leaves Your Device

Your 3D model files are never uploaded to any server. All file loading, parsing, and rendering happens entirely inside your browser using the [File API](#) and [WebGL](#). Close the tab and the files are gone from memory.

No Tracking or Analytics

The application contains no analytics scripts, cookies, local storage writes, or telemetry of any kind. There is no login, no account, and nothing is retained between sessions.

External Resources

The viewer loads JavaScript libraries from a public CDN at startup:

Library	Source	Purpose
Three.js r158	unpkg.com	3D rendering engine (WebGL abstraction)
Three.js Addons	unpkg.com	Loaders for GLB, OBJ, STL, PLY, FBX

These are well-maintained, widely audited open-source libraries. If you need to run the viewer in a fully offline or air-gapped environment, download these files locally and update the `<script type="importmap">` block to point to your local copies.

Content Security

The viewer does not execute any code embedded in model files. 3D formats like GLB/GLTF can technically reference external URLs — Three.js's loaders will attempt to resolve these if present. In practice, most model files from standard 3D software (Blender, Maya, etc.) do not include remote references. If you are working with untrusted model files from unknown sources, review the file contents before loading.

Credits

Created By

Drew Medina <https://drewmedina.com/>

Coded in Claude

Powered By Open Source

Project	License	Link
Three.js r158	MIT	threejs.org
Three.js GLTFLoader	MIT	Included with Three.js
Three.js OBJLoader	MIT	Included with Three.js
Three.js STLLoader	MIT	Included with Three.js
Three.js PLYLoader	MIT	Included with Three.js
Three.js FBXLoader	MIT	Included with Three.js

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Rendering Technology

WebGL via Three.js with ACES Filmic tone mapping, PCF soft shadow maps, and SRGBColorSpace output encoding.

Stereo Rendering

Side-by-side stereo uses a toe-in camera rig with configurable eye separation and convergence distance.

License

SculptView3D is released as **freeware**. You may use it freely for personal and commercial projects. You may not sell it as a standalone product or remove the author credit. Use at your own risk.

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