

Claude of Duty

A first-person shooter, built entirely from a single prompt — no art assets, ever

THREE.JS r180 · ~55K LINES · ZERO ART FILES

Claude of Duty is a browser FPS built in Three.js and WebGL2 — roughly 55,000 lines across 11 subsystems, written by a fleet of AI agents under orchestration. Every texture, mesh, animation, and sound is generated procedurally at load time from code. No models, no HDRIs, no image files, no audio files. The only runtime dependency is three.

01 Get the repo

```
https://github.com/mshumer/Claude-of-Duty  
  
git clone https://github.com/mshumer/Claude-of-Duty.git
```

02 Install dependencies

```
cd Claude-of-Duty  
npm install
```

03 Run it

```
npm run dev
```

This starts a local dev server. Open it in your browser:

```
http://127.0.0.1:5173
```

Click the canvas to lock the cursor, and you're in.

04 Controls

WASD	Move	Mouse	Aim
LMB	Fire	RMB	ADS
R	Reload	Shift	Sprint
Ctrl	Crouch	Space	Jump
Q / E	Lean	Esc	Release cursor

05 What's actually running under the hood

The render pipeline alone covers HDR, cascaded shadow maps, GTAO, TAA, bloom, and a procedural colour grade. Materials are a GPU texture forge — 19 procedural surfaces with periodic noise so nothing repeats visibly, parallax occlusion mapping, and curvature-driven edge wear. Physics, AI pathing, and audio synthesis are all written from scratch, with no external libraries and no sound files.

ARCHITECTURE.md in the repo is the contract the agents worked against — worth a read if you're curious how a multi-agent build stays coherent across 11 subsystems.

06 What the optimization pass actually fixed

A static-camera benchmark reported 94 fps while the game was, in practice, unplayable — real gameplay at Retina resolution was stalling on 34+ shader programs compiling mid-frame. A pre-warm pass fixed that, and the fix was verified pixel-neutral: a per-pixel image diff gate rejected any visual change, not just a performance assertion.

	BEFORE	AFTER
fps p50	12–17	28–30
fps p99	4–9	14–17
worst frame	728–1236 ms	66–82 ms
boot time	~9–12 s	3.7–4.6 s

SET YOUR EXPECTATIONS HONESTLY

The goal was to match a modern Call of Duty. It doesn't. Eleven adversarial critics scored the frames 3.59–5.05 out of 10 against that bar, and every critic picked the real Call of Duty frame in blind A/B testing. Hands, material richness at close range, and character fidelity at distance are the clearest gaps — this is a genuinely impressive tech demo of procedural generation, not a AAA game.

THAT'S IT — HAPPY BUILDING

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