

copperhead

Cursor for circuit boards.

An open source AI agent that designs, documents, and verifies real PCBs from a prompt.



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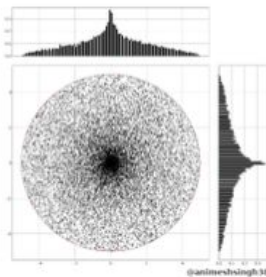


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Demo

Most Claude demos are software.
This one is a circuit board.

One change touches everything. And everything drifts.

A board is fifty constraints held in one head

One change touches schematic, BOM, pinout, docs. They drift silently

Drift ships to fab: \$5–50K and 6–8 weeks per respin

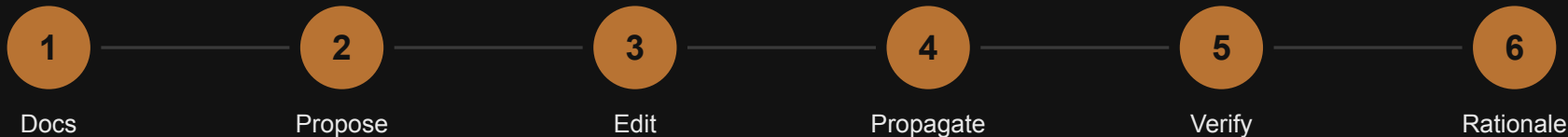
Hardware takes months of specialist time

25 μ A

the number our whole proof board lives inside

I design hardware in public. Every trap I've hit is documented.

Built today: the agent, installable by anyone.



Nothing starts without a spec

Edit tools stay locked until the change proposal validates

Nothing is done until the tools agree

ERC and DRC must pass. Drift is a build failure.

```
npm i -g copperhead · Apache-2.0 · works on your existing KiCad repo
```

Delta 4? This is Delta 10.

Today:

Months of specialist time

Docs drift from design

Traps caught after fab

Blank canvas

With copperhead:

Days, one person

Drift is a build failure

Caught at design time, cited to the datasheet

Complete draft: gerbers, firmware, dev plan

~10x

time to manufacturable files

~~US-GTM~~ Global on Day 0. By construction!

- **\$4.2B** EDA market, 20 straight growth quarters
- KiCad: the world's most-used open PCB tool, millions of installs, every country
- Open source, Apache-2.0. Hardware engineers trust what they can inspect
- Flux = walled garden
- Quilter = autorouter only
- Siemens = enterprise lock-in
- Nobody does agentic design on open files

copperhead is a Chouhan Industries project

An open source hardware company, founded 2025. Consumer hardware you truly own.

Open Source

Every schematic and process document is public record. Design files publish before units ship

Manufacturing

Full-stack production, mechanical to systems, owned in-house

Quality

Testing is not a phase, it is the process.

Open Telegraph (in development) · Open Media Platform (flagship, in development) · Open Clock · Open Purifier

copperhead is the tool that makes this factory run at software speed.

Land in the US where open hardware lives.

- **Wedge: the open repo. Show HN, Hackaday, KiCad community**
- **First customers: crowdfunded-device startups and small hardware teams**
- **Open core: free CLI → \$49 hosted → \$199 team CI → enterprise audit trail**

