Walkie

An M5StickS3 wrist voice remote for Claude Code—keeping every high-risk tool approval locked to deliberate physical key presses.

Physical AI · Tactile Control

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01 · Core Design Tradeoff

Bind tool approvals to physical watch buttons rather than spoken 'yes'

Human tension: Stepping away from the desk leaves an autonomous coding agent stalled on a single permission prompt, yet speaking commands aloud in shared spaces creates privacy discomfort and makes accidental approval feel effortless.

Alternatives rejected:

- **Hands-free voice confirmation ('Yes, run it')** — Speech-to-text cannot distinguish deliberate user intent from background conversation or media audio, offering zero tactile boundary before a destructive shell command executes.
- **Mirror the full terminal session on a phone screen** — Pulling out a phone re-exposes notifications and drags a two-second decision back into full-screen desktop context switching.

Chosen tradeoff: Asymmetric physical key grammar on M5StickS3: hold the Front Key to record press-to-talk audio, press Front Key to approve, press Side Key to deny (with an optional spoken reason), and require a 30-second physical Front Key press to pair any new PC.

02 · Key Interaction Rule

Compress context into spoken summaries and explicit offline diagnostics

The Node 24 bridge distills replies into short spoken summaries, USB always preempts the AES-256-GCM Fly.io relay when plugged in, and OFFLINE screens distinguish no-Wi-Fi, relay-unreachable, and PC-bridge-offline explicitly.

03 · Key Interaction Rule

Enforce sibling-partition flash guards and button-confirmed key pairing across shared hardware

firmware/guard.py blocks -t erase and -t uploadfs pre-flash, pairing locks an AES-256-GCM shared key to pair.key only after a 30-second physical Front Key confirmation, and Fly.io routes opaque binary envelopes without decrypting them.

Role & Scope

Solo · Product direction, interaction rules & on-device checks

- Dual-boot S3 key-locked approvals
- ESP32 C++ · AES-256-GCM · Node 24
- 3 manual hardware/relay gates

Honest Scope & Limits

Single developer (Lewis) has used it; no external user study has been run.

Have 2–3 Claude Code users test an approval-heavy session away from their desk.

Scan for Live Prototype

https://lewisdong.vercel.app/en/projects/walkie#interactive-demo

Lamplight Nook

Turns an opaque background coding run into a readable café crew plan—locking risky approvals onto 'Not now' by default.

AI Agent UX · Desktop Workbench

2026 · v1.0 in daily use

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01 · Core Design Tradeoff

Spatialize agent roles as a café crew instead of a terminal log or chat avatar

Human tension: Background coding agents run for tens of minutes and emit hundreds of text lines; people either stare anxiously at scrolling stdout or tune out completely and miss when the agent actually stalled waiting for input.

Alternatives rejected:

- **Traditional spinner plus auto-scrolling raw stdout log** — Treats planning, tool execution, and blocked user questions as visually identical text lines, forcing the user to parse logs every few minutes.
- **Conversational 'helpful buddy' chatbot with affective banter** — Chatty anthropomorphism encourages over-trust and blurs the boundary between verified file actions and conversational reassurance.

Chosen tradeoff: Separate state into spatial roles: Wick chalks the real plan onto a blackboard, specialist crew act out real Claude Agent SDK events, and minimizing shrinks everything into a calm corner status monitor that only chimes when a decision waits.

02 · Key Interaction Rule

Lock risky-action keyboard focus onto ’Not now’ and restrict staff to file copies

Risky cards place initial keyboard focus and primary visual weight on 'Not now', treating interruption as a safe, reversible pause while keeping completed steps intact; commission slips enforce spending caps and copy-only execution.

03 · Key Interaction Rule

Enforce explicit commission spending caps and collapse the crew into a corner status card

Every commission sets a pre-flight budget limit alongside full EN/ZH parity across cards, while minimizing shrinks the UI to one calm desk-corner window displaying 'step X of Y' and active owner.

Role & Scope

Solo · Direction, UX & acceptance

- Default-safe 'Not now' risk lock
- Electron · Phaser · TypeScript · SDK
- Daily solo driver · v1.0 shipped

Honest Scope & Limits

No one but Lewis has used it on record, and there has been no user testing.

Watch a few people run the same task with the café and with a plain log.

Scan for Live Prototype

https://lewisdong.vercel.app/en/projects/lamplight#interactive-demo

Resume Autofill

Chrome and Android resume autofill that visibly separates certain matches from guesswork—and never submits on your behalf.

Trustworthy AI · Local Privacy Tool

2026 · used on real applications

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01 · Core Design Tradeoff

Split certainty into three visible tiers and leave ambiguous answers blank

Human tension: Re-typing one resume across Workday, Beisen, and Moka is exhausting, yet AI autofillers that guess visa status, salary expectations, or motivation essays to look '100% automatic' shift catastrophic error risk onto the applicant.

Alternatives rejected:

- **Cloud LLM auto-generation for every blank and open-ended prompt** — Produces plausible hallucinations on high-stakes compliance fields and requires sending private resume history to external servers.
- **Color-only highlight for uncertain fields** — Fails color-blind accessibility and leaves users unsure whether a field was skipped intentionally or broken.

Chosen tradeoff: Deterministic 1:1 local matches fill immediately (solid), ambiguous dropdowns pause for review (dashed), open prompts stay blank (3px solid), and every tier pairs stroke style, word badge, and explicit side-panel reason.

02 · Key Interaction Rule

Hard-lock final Submit to human action and keep resumes strictly on-device

Extension logic advances Next across pages and stops dead before Submit (stated explicitly in the side panel), while Chrome CSP blocks network calls and Android encrypts resumes in the device Keystore (verified by a unit test rejecting network imports).

03 · Key Interaction Rule

Match by UI component library first and pair with a network-free Android Resume Keyboard

Adapter matching abstracts controls by underlying library (Ant Design, Element Plus, react-select, ARIA) plus ATS presets, while on Android a Keystore-encrypted custom IME lets applicants tap-insert local resume fields cleanly—verified by unit tests rejecting any network import.

Role & Scope

Solo · Full-stack architecture & rules

3-tier certainty & Submit lock

Chrome MV3 · Capacitor Android (Java) · Zero net

6/6 visual checks · Used on Lewis's own applications

Honest Scope & Limits

No one but Lewis is on record as using it, and there has been no user testing.

Watch three or four graduates use it on one real application each.

Scan for Live Prototype

https://lewisdong.vercel.app/en/projects/autofill#interactive-demo