Cryptomazer

The world's first mechanical password generator and manager.

Cryptomazer is a mechanical device built on 12 cipher-groups. Each group — three concentric discs (content, letters, digits/symbols), rigidly coupled by a 26-tooth gear hub. 36 discs + 12 hubs on a common axis. Two independent programming modes: group rotation (26^{12} positions) and group permutation on the axis (12! variants). Combined space — ≈ 4.6×10^{25}.

No electronics. No power. Laser engraving or milling of characters. Works for 50 years.

Purpose.

- **Password generator and manager. The world's first mechanical one. Select a group, rotate to the mnemonic, read the character. Repeat. Password ready. The mnemonic is written once — the password is always at hand. No vault, no login, no subscription, no server.**
- **Source matrix. Single source of truth. From its current state, SCryptoSave cards are produced (85.6 × 54 mm, plastic, laser engraving, different colors = different keys). Capture the state → produce 5, 50, 100 cards → distribute.**
- **Transponder. Challenge: *"group 3, letter M"*. Response: one character. Friend or foe.**
- **Physical token. An object with variable value: while in the owner's hands — a key to dozens of services. Lost — value zeroed. Deferred value: transferred for a trivial sum "empty," filled later.**
    - **Multi-token. One Cryptomazer is simultaneously a token for N services: each group — a separate key. 12 groups = 12 tokens in one object.**
    - **Registry of issued tokens. Cryptomazer stores the state from which cards were produced. A physical registry: what was issued, in what state, when rotated. Seal on the housing = proof of immutability. Loss of a card ≠ loss of the key — the key is in the registry.**
- **Standalone use. No cards, no one else. One device — the complete key.**

Uniqueness.

No device combines:

- **air-gap by definition (no server, no API, no supply chain),**
- **two independent programming channels (rotation + permutation),**

- **matrix model (one source → N cards),**
- **mechanical discreteness (26-tooth hub = 26 detents, tactile click, no "sticking"),**
- **registry role (physical source of truth for issued tokens).**

The Jefferson disk encrypted messages. Cryptomazer stores, generates, and manages keys.

Advantages:

- **Can't be hacked — there's nothing to hack**
- **Can't be intercepted — nothing to intercept**
- **No battery, subscription, account, or internet required**
- **Key rotation — 2 minutes, no re-manufacturing**
- **Revocation of all cards — one rotation**
- **Emergency recovery — re-produce cards in minutes**
- **Independent of platform, OS, browser, provider**

Beyond purpose:

- **Substitution coding. 12 groups = 12 independent simple substitution ciphers. A short message — as coordinates: 4T 7A 2L 5B 9E.**
- **One-time access. Coordinate transmitted — password burned.**
- **Secret exchange in a trusted circle. Family, team, partners — one matrix, N cards, shared key.**
- **Inheritance / trusted person. Device in a sealed housing with a seal. Seal intact → key unchanged. [/read] Cryptomazer. A matrix that is stored nowhere except with you.**