

Entropy — User Test Plan

v1.0.0 • 2026-02-27 • Scope: LAUNCH_PLAN.md, SCOPE.md

Prerequisites

- Browser with MetaMask (or EIP-6963-compatible wallet) installed
 - Wallet has funded Ethereum mainnet account (min 0.002 ETH for lock + gas)
 - App accessible at deployment URL, on Ethereum mainnet (chain ID 1)
 - Browser DevTools console open for observing errors
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1. Wallet Connection

1.1 Initial Connection

- Hero section visible with "Connect Wallet" button
- Click Connect — wallet picker appears if multiple providers detected
- Wallet prompts `eth_requestAccounts` approval
- SIWE message reads "Sign in to Entropy Network." — sign it
- Hero shows truncated address (first 6 + last 4 chars)
- FLUX balance displays in nav header (0 for fresh wallet)

1.2 Session Persistence

- Page refresh — wallet stays connected without re-signing
- Close tab and reopen — session restores automatically

1.3 Disconnect

- Click disconnect — Hero returns to "Connect Wallet" state
 - Reconnect to continue testing
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2. ETH Lock

2.1 Lock Submission

- Hero shows ETH lock prompt after connecting
- Click lock — MetaMask confirms tx for configured amount (default 0.001 ETH)
- Confirm tx — UI shows "SENT" / "VERIFYING" status badge
- Within ~30s, status updates to "LOCKED" / "CONFIRMED"

2.2 Lock Status Display

- Badge shows current lock state (LOCKED / PENDING / SENT / VERIFYING / ERROR)
- Lock badge persists across page refreshes and wallet disconnect/reconnect

2.3 Error Recovery

- Rejected tx in MetaMask — UI returns to unlocked state without errors
 - Verification failure — ERROR state shown with retry available
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3. FLUX Faucet Claims

3.1 First Claim

- After ETH lock confirmed, "Claim FLUX" button appears
- Click Claim — MetaMask prompts message signature (not a tx)
- Sign — FLUX balance updates (default: 1 FLUX; whitelist bonus: 300 FLUX)

3.2 Cooldown Enforcement

- After claiming, button shows countdown (24h prod / 5s dev)
- Claiming again during cooldown is blocked
- After cooldown expires, claim button re-enables

3.3 Claim Persistence

- Refresh page — FLUX balance remains accurate
 - Disconnect/reconnect — balance fetched from server, not local state
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4. Navigation & Shell

4.1 Persistent Shell

- Nav bar visible on every page (Home, DEX, Star Vault, Rocket Lab, Leaderboard)
- Nav shows: logo, FLUX balance, wallet address, navigation links
- Mobile: nav collapses into hamburger menu

4.2 Page Routing

- Each link loads correct page: Home (#), DEX (#dex), Star Vault (#mystery), Rocket Lab (#lab), Leaderboard (#leaderboard)
- Browser back/forward works; direct URL entry loads correct page

4.3 Journey Cues

- After ETH lock — cue suggests claiming FLUX
- After FLUX + no inventory — cue suggests opening Star Vault box
- Cues dismissible with X; dismissed cues don't reappear in session

4.4 Quick Actions

- Home page shows quick action cards linking to each section — all navigate correctly
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5. Star Vault — Mystery Boxes

5.1 Catalog — Box tiers displayed (Common → Quantum) with names, FLUX prices, rarity info

5.2 Purchase & Opening

- Select an affordable box tier — click to open
- FLUX decreases by box price immediately
- Part reveal shows: section name, rarity tier (colored), power score
- Part appears in inventory

5.3 Insufficient Balance — Purchase blocked, no FLUX deducted

5.4 Inventory

- All parts display: section, rarity, power score, source (#mystery_box)
- Parts persist across refreshes and disconnect/reconnect

5.5 Multiple Opens — Higher-tier boxes tend to produce higher-rarity parts; all parts accumulate correctly

6. Nebula Bids — Auctions

Requires auction scheduler (`auction-tick`) to be running.

6.1 Round Visibility — Current round status and phase timer displayed

6.2 Part Submission (during "accepting submissions" phase, first 30 min)

- Rare+ part shows "Submit to Auction" option — submit it
- Part marked as locked in inventory; confirmation shown
- Parts below Rare tier cannot be submitted
- Equipped/locked parts cannot be submitted

6.3 Bidding (during "bidding" phase)

- Active auction part displayed with details
- Current highest bid and min next bid (5% increment) shown
- Place valid bid — FLUX escrowed (balance decreases), bid appears in list
- Bids below minimum or with insufficient FLUX are rejected

6.4 Outbid & Refund — Outbid FLUX refunded; balance updates; can place higher bid

6.5 Round Finalization

- Winner: part transfers to inventory (source: `auction_win`)
- Seller: FLUX proceeds credited
- Non-winning bidders: escrowed FLUX refunded
- New round begins automatically

6.6 Realtime — Bids, phase transitions, and FLUX balance update without manual refresh

7. Rocket Lab — Build & Launch

7.1 Assembly View — 8 slots: Core Engine, Wing Plate, Fuel Cell, Nav Module, Payload Bay, Thruster Array, Propulsion Cables, Shielding

7.2 Equipping

- Select part → assign to matching slot → slot updates
- Equipped part cannot be submitted to auction

7.3 Launch Simulation

- All 8 slots filled → "LAUNCH ROCKET" available
- Launch animation plays → Grav Score displayed (power + rarity multipliers + compatibility bonuses)
- Launch recorded in local history

7.4 History — Up to 5 recent launches with score/timestamp; "BEST LOCAL GS" highlighted; persists in localStorage

7.5 Local-Only — Launch does NOT deduct FLUX or alter server inventory; labeled as local simulation; no ledger entries

8. Leaderboard

8.1 Display — Top 20 entries: Rank, Move, Wallet, Missions, Flux Burned, ETH Earned; top 3 have tier badges

8.2 Stats Cards — Daily ETH Prize, Active Players, Total Missions, Total Flux Burned

8.3 Refresh — Click refresh → spinner → "Last updated" timestamp updates

8.4 Your Ranking — Verify your wallet address, mission count, and rank position

9. Feature Flag Gating

9.1 Individual Disable — Each `VITE_FLAG_*=false` hides/disables corresponding feature: Star Vault, Nebula Bids, Rocket Lab, DEX, Faucet

9.2 Progressive Enable — Enable flags one at a time (Faucet → Star Vault → Nebula Bids → DEX → Rocket Lab); each works without breaking others

10. Cross-Cutting Concerns

Test	Expected
Network disconnected	Loading/error states shown; Supabase realtime reconnects on resume
Failed RPC calls	User-facing error messages (not raw errors)
Rapid FLUX claim + box open	Both complete correctly
Bid during faucet claim	No race conditions
Wallet switch (A → B)	All state reflects wallet B; no leakage
Desktop (1440px+)	Full side-by-side layout
Tablet (768px)	Adapts without overflow
Mobile (375px)	Hamburger nav, stacked layout, usable touch targets
Double-click claim/box/bid	Only one operation processed

Happy Path Summary: Connect → Lock ETH → Claim FLUX → Open Boxes → Submit to Auction → Bid → Equip 8 Slots → Launch → Check Leaderboard