Blackbox Prototype Testing Pack

Version: Prototype V0

Introduction

Thank you for participating in the Blackbox Prototype Testing Program!

This guide is designed to help you assess the usability, clarity, and overall user experience of the Blackbox point-of-sale (POS) terminal.

Your role is to evaluate how intuitive, consistent, and reliable the interface feels during real or simulated use. The principles in this guide are adapted from the Nielsen–Molich Usability Heuristics, a globally recognized framework for identifying design strengths and weaknesses early in development.

Each section includes a short explanation, rating scale, and space for comments. Please provide specific examples wherever possible—such as moments of confusion, intuitive design choices, or areas that could be improved.

The goal of this evaluation is not only to find faults, but to help shape a more seamless and merchant-ready experience for future versions of Blackbox. For any queries, please direct them to Neon or Phill in the discord group chat.

The sections included are as follows:

Name/handle: _____ Date: _____ Device no _____

1. Testing Overview

Purpose:
Evaluate the Blackbox POS prototype (V0) for usability, reliability, and design performance.

Objectives:
- Identify functional and UI issues.
- Assess usability using structured heuristics.
- Gather feedback on hardware and form factor.
- Evaluate readiness for real-world pilot deployments.

Duration:
7 days per tester including setup, testing, and feedback submission.

2. Current & Prospective Features

Current Features (V0):

- Store CKB and BTC addresses via QR scan
- Manual exchange rate updating
- Generate payment requests in 47 currencies
- Manual crypto payments to third parties
- Internal non-tracking inventory with editing options
- Barcode printing
- Invoice generation via barcode-linked inventory
- OTA update via webserver
- Image upload via webserver for inventory
- Generate a sale based on scanned inventory items.
- Create new inventory items.

Prospective / Market-Readiness Features:

- Verified crypto transaction flow (BTC, CKB, Fiber, Lightning)
- Certified fiat payment processor integration (EMV level 1 and 2; PSP)
- Encrypted wallet storage and secure firmware
- Improved UI/UX consistency and navigation
- Remote management, OTA updates, and dashboard
- CE/FCC hardware certification and durable casing
- Localization and documentation for global rollout

3. Tester Instructions

Setup:

1. Power on and connect to WiFi.
2. Confirm clock and WiFi indicators remain visible.
3. Scan and store BTC/CKB addresses.
4. Update exchange rates manually.

Functional Testing scenarios:

- Generate payment requests in multiple currencies.
- Compare conversion rates externally.
- Send payments to test addresses.
- Add/edit inventory items and print barcodes.
- Generate invoices; verify totals.
- Perform 10+ rapid scans or transactions.
- Disconnect and reconnect WiFi; observe recovery.
- Connect remotely to blackbox.local via shared WiFi connection to upload images or update

Comments (did all scenarios work as expected?):

4. Software Evaluation

This section evaluates functional behavior, reliability, and responsiveness of the software system within the Blackbox terminal.
Rate each aspect from 1 (poor) to 5 (excellent) and provide detailed comments describing your observations.

Setup Ease
How simple was first-time configuration?

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

System Performance
Evaluate system speed, stability, and reliability under normal and stress conditions.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Responsiveness
Is system feedback prompt and consistent?

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Function Accuracy
Are rates, totals, and conversions correct?

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Payment Processing Flow

Assess intuitiveness and efficiency of creating, sending, and confirming payments.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Inventory Management

Evaluate usability when adding, editing, or deleting inventory items.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Invoice & Record Generation

Test invoice generation accuracy and clarity of data presentation.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Data Handling & Storage

Check persistence, accuracy, and synchronization between sessions.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Reliability

Is the system stable over repeated use?

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Error Handling & Messaging

Review clarity and helpfulness of warnings, errors, and confirmations.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

System Stability & Recovery

Assess behavior during and after disconnection or rapid input.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

5. UI/UX Evaluation

This section focuses on user interface design, layout consistency, and intuitiveness of user flows.
Rate each area (1–5) and provide detailed comments about your experience.

Navigation & Menu Flow
Evaluate ease of moving between pages and accessing key features. Is menu flow logical and clear?

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Button Placement & Responsiveness
Test visibility, size, and responsiveness of on-screen buttons.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Visual Hierarchy & Readability
Assess text clarity, color contrast, and visual balance.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Configuration & Settings
Evaluate accessibility and clarity of system configuration options (WiFi, timezone, sound).

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Feedback & System Status
Assess how clearly the system indicates progress or errors.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Aesthetic Consistency
Evaluate color palette, typography, and icon consistency.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

User Flow Efficiency
Observe how many steps are required to complete common actions (e.g., payment, inventory update).

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Accessibility & Localization
Assess clarity of language, icon meaning, and usability for different regions.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Overall UI/UX Impression
Summarize your overall impression of usability, appeal, and readiness.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

6. Hardware Evaluation

Form & Stability

Assess overall size, weight, balance, and stability on a counter.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Surface Texture

Describe grip, finish, and feel of materials.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Screen Readability

Evaluate visibility under bright and dim lighting.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Port Accessibility

Check reachability, labeling, and cable comfort.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Port Options

Check appropriateness of types and numbers of ports

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Power Reliability

Observe stability during extended mains-powered operation.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Build Quality

Note rigidity, button feedback, and fit/finish.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Thermal Comfort

Observe warmth or hot spots after long sessions.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Aesthetic Appeal

Describe general design, proportions, and brand alignment. Is the visual style clean and professional?

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

7. Usability Heuristics Evaluation

The following heuristics are based on the Nielsen–Molich Usability Heuristics. Each principle reflects a fundamental aspect of human–computer interaction (HCI) that affects efficiency, satisfaction, and error reduction.

Rate each heuristic from 1 (poor) to 5 (excellent) and record specific examples or observations from your experience using the prototype.

Visibility of System Status

Purpose: The system should always keep users informed about what's happening through timely and clear feedback.

Evaluate:

• Are progress indicators (loading, saving, processing) visible and responsive?

• Do status icons or confirmations appear immediately after user actions?

• Are there any moments where the system seems unresponsive or ambiguous?

Example: After tapping 'Send Payment', there was a short delay without any visible progress bar.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Match Between System and the Real World

Purpose: The system should use familiar language, concepts, and workflows that align with user expectations.

Evaluate:

• Are terms intuitive to non-technical merchants?

• Are icons and visuals recognizable and self-explanatory?

• Does the workflow follow real-world merchant processes (scan → confirm → payment)?

Example: The use of a QR icon for address input is intuitive and matches real-world expectations.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

User Control and Freedom

Purpose: Users should be able to easily undo or exit actions to prevent mistakes.

Evaluate:

• Are Cancel or Back options available on every screen?

• Are critical actions confirmed before completion?

Example: Couldn't cancel out of invoice generation without returning to the home screen.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Consistency and Standards

Purpose: Users should not have to wonder whether different words, icons, or layouts mean the same thing.

Evaluate:

• Are button placements and labels consistent across screens?

• Are UI components predictable (back button always top left)?

Example: Good consistency overall — only the Settings icon differed slightly.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Error Prevention

Purpose: Design should prevent errors before they occur through validation and confirmations.

Evaluate:

• Are input fields restricted to valid formats (e.g., numbers only)?

• Does the system confirm before deleting or overwriting data?

Example: Allowed letters in price field — potential for input error.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Recognition Rather Than Recall

Purpose: Reduce memory load by keeping options and data visible rather than requiring users to remember steps.

Evaluate:

• Are previously used currencies or items visible for quick selection?

• Are key actions easily accessible without recalling prior steps?

Example: Users must remember exchange rate values manually after switching screens.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Flexibility and Efficiency of Use

Purpose: Design should allow shortcuts for experienced users while remaining accessible to beginners.

Evaluate:

• Can repeated actions be automated or remembered?

• Are quick-access paths available for common actions?

Example: System remembers preferred currency — good efficiency feature.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Aesthetic and Minimalist Design

Purpose: Interfaces should be visually clean, with only necessary information displayed.

Evaluate:

• Is the design free of clutter and consistent with brand style?

• Are colors and contrasts comfortable and readable?

Example: Too much spacing between total and subtotal fields.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Help Users Recognize, Diagnose, and Recover from Errors

Purpose: Error messages should clearly explain issues and suggest solutions.

Evaluate:

• Are messages in plain language?

• Do they describe both the cause and recovery options?

Example: Error message for connection loss clearly advised to retry.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

Help and Documentation

Purpose: Even well-designed systems benefit from accessible guidance and documentation.

Evaluate:

• Are help icons, tooltips, or onboarding prompts available?

• Are configuration instructions easy to find?

Example: Tooltips in Settings are clear but could be larger.

Rating: ☐1 ☐2 ☐3 ☐4 ☐5

Comments:

8. Open-Ended Questions

Which features felt most seamless or efficient to use?

Comments:

Were there any areas where you were unsure what to do next?

Comments:

Did the system always provide clear feedback?

Comments:

What parts of the UI could be simplified or reorganized?

Comments:

Did you experience any lag or unpredictability?

Comments:

What are your thoughts on the overall appearance of the UI?

Comments:

Describe your first impressions of the physical device.

Comments:

Are the ports and cables positioned conveniently?

Comments:

How does the screen perform in various lighting?

Comments:

What improvements would you suggest to the external design?

Comments:

9. Content Creation & Media Submission

Record short clips as aides to any specific feedback you had. Also feel free to share any clips showcasing design, functionality, durability etc.

Upload: Shared discord group

10. Final Summary & Tester Notes

Additional observations, remarks, or reflections.

Comments:

Appendix: Hardware Metrics Log Sheet

Purpose:
To record operational observations during extended use — focusing on comfort, reliability, and any physical or thermal changes.

Date	Session Duration (min)	Observed Warmth (None / Mild / Noticeable)	Noted Issues	Power / Port Comments	Comfort & Handling Notes