

Appendix 3: Compilation of all quantitative and qualitative feedback received from testers

Compiled on 2026-01-06 from individual tester submissions. Participant identifiers are preserved as provided in the packs.

Participants

Tester	Date	Profile
Lin Guopeng	12/19	Test Manager at Cryptape, specializing in the full-cycle quality assurance of the Nervos CKB blockchain with extensive experience in blockchain testing.
Alive	2025/12/13	Software developer with years of experience in blockchain smart contracts, frontend and backend development, developer operations and relations, embedded systems, and data analysis.
Litao Tian	2025-12-16	Software developer with bachelor's degree. Expertise in web development and CKB blockchain development
Jacky	Dec 16, 2025	Content creator and educator with around 7 years of experience in the blockchain industry and have been a contributor to Nervos CKB since 2021. Experienced in creating educational content, supporting user onboarding, and producing tutorials for ecosystem projects.
Yuqi Feng	12/10/2025	Computer science background with 5 years of experience in UI/UX design, including 3 years in Web3 & CKB. Experienced in evaluating products through a user-centered lens, informed by an understanding of real-world technical constraints.
Code Monad	1/1/2026	Chief Technical Officer, Nervape. Software developer with over 10 years of experience. CKB developer

Compiled feedback by tester

Yuqi Feng

Setup and scenarios feedback (section 3)

WIFI Connection:

Unclear interaction hierarchy: Elements like WIFI, SSID, and Password share the same visual styling, making them look like tappable buttons. In reality, WIFI is a page title and SSID/Password are labels, not actions. This mismatch creates confusion and forces users to guess what's interactive.

Fragmented connection flow: To connect to a network, users must tap “none” to scan for WiFi, choose a network, jump back to the previous page, tap the password field, enter the password and then save. This multi-step, back-and-forth flow feels disjointed and inefficient.

Poor input usability: Entering a password is extremely difficult due to the very small tappable area. This makes the core task—typing a WiFi password—frustrating and error-prone.

Check out this figma section for my suggestions.

Scan & Store Address:

No clear indication that the scanner has activated: When the user taps “none”, the side scanner turns on, but there’s no on-screen visual telling that scanning mode has started (The only cue is a white light on the side of the device, which is easy to miss if users just look at the front). Check out this figma section for my suggestions.

Success state has no audible or enough visual confirmation: After a QR/Barcode is detected, the scanner LED turns green, but the UI does not react right away. It is missing a success sound.

4. Software Evaluation

Item	Rating (1-5)	Comments
Setup Ease	2	Setup was functional but not intuitive enough. The flow required too much unnecessary screen hopping, and it wasn't always clear which elements were interactive due to incorrect UI affordance. Entering the WiFi password was also difficult due to the small tappable area.
System Performance	4	The system performs smoothly overall. Most interactions respond quickly, and the audio feedback makes it clear when an action has been registered. There are occasional delays in a few areas, and they lack visual indicators, which can momentarily break the sense of responsiveness.

Responsiveness	3	The feedback patterns are not fully consistent across the system. For example, the WiFi page correctly shows a 'scanning WiFi...' loading state, but the currency/assets page does not use a standard loading indicator—only a highlighted refresh icon, which is not an expected or clear pattern. Some actions also fail to give proper feedback: the 'Back' button on the auth code page doesn't respond, and navigating to 'Sales' under Fund Request takes several seconds with no loading cue. These inconsistencies make it harder to understand whether the system has registered the action or is still processing.
Function accuracy	5	I checked against the exchange rate on Coinbase, and it matched.
Payment processing flow	2	<p>The payment creation flow lacks clarity and visual hierarchy, which makes it hard for users to understand both where to start and what actions they are taking.</p> <ul style="list-style-type: none"> ● [UX] Unclear entry point: The dollar sign entry point on the home screen is ambiguous and does not clearly communicate "create a payment." It reads more like a currency indicator than an actionable control. A more explicit payment-related icon would better signal intent (maybe a bill in hand?). ● [UX] "Quantity" is misleading in a payment context. It implies count or units, not money. This forces users to mentally translate what it actually means. Since the user intent is to pay a total amount, a clearer label would be: "Amount / Total" ● [UI/UX] Weak visual hierarchy: On the payment screen, all fields are presented with similar visual weight, resulting in weak hierarchy. Users are not guided toward the primary task. Entering the payment amount is the core action, yet it does not stand out visually, increasing cognitive load and hesitation. Check out this figma section for my suggestions. ● [UI/UX] Unclear sales workflow: The screen showed an empty invoice without indicating that the scanner was on or ready. Only the most recently scanned item was visible, requiring cashiers to remember previous scans. ● [Functional] The generated QR code doesn't seem to provide valid data.
Inventory Management	3	<p>Inventory item management is generally functional, and core actions such as editing and deletion work reliably. However, several workflow interruptions and feedback issues reduce overall usability.</p> <ul style="list-style-type: none"> ● [Functional] Synchronization issue: After adding a new inventory item, the inventory list does not automatically refresh (It displays an empty line and tapping into it shows an empty page). Users must navigate back to the home page and re-enter the list to see the newly added item. ● [UX] Unnecessary popup modal: When users click into input fields while adding an item, a confirmation modal ("edit <description>") appears immediately. This interrupts the flow and adds unnecessary friction to a routine action. The same modal appears during item updates, even though accidental entry can be easily reversed using the existing Back navigation. ● [UI] Cluttered icons: The item detail page feels visually cluttered,

		particularly in the action area. Six action icons are stacked at the bottom of the screen, creating visual noise and increasing decision load. Several actions (e.g., Delete, Duplicate, Image Upload) are not functional when adding a new item, yet are still displayed. This creates false affordances and undermines user trust. Hiding infrequent actions behind a “More” menu and only surface actions that are relevant to the current state would reduce clutter and improve focus on the primary task. Check this figma section for my suggestion.
Invoice and record generation	4	The printed invoice is legible and prints clearly. While the data itself is accurate, the presentation could be improved to better reflect user priorities and reduce ambiguity. Some information (such as payment totals, exchange rate, address, and transaction details) competes for attention rather than following a clear hierarchy. Refining labels and emphasizing the primary payment amount would improve overall clarity and make the receipt easier to understand at a glance. Check this figma section for my suggestion.
Data handling and storage	4	Overall persistence and data accuracy between sessions work reliably. The only synchronization issue observed is when adding a new inventory item—I mentioned above in the Inventory Management section
Reliability	4	Overall, the system feels stable. It behaves consistently across repeated actions, provides the same feedback each time, and responds within a predictable timeframe. I did encounter two crashes during testing, but I wasn't able to reproduce them, so the cause is unclear.
Error handling and messaging	2	Error handling is weak. For example, when testing the WiFi connection, entering an incorrect password makes the “connect” icon disappear, but no error message appears. There's no indication of what went wrong or what the user should do next. Ideally, the system should show a clear message like “Incorrect password” and guide users to retry or re-enter their credentials.
System Stability & Recovery	5	Recovery is fast, and no data loss or inconsistent states were observed during testing.

5. UI/UX Evaluation

Item	Rating (1-5)	Comments
Navigation and Menu Flow	3	Overall navigation is straightforward. The bottom navigation bar keeps core actions (Back, Home) always visible, so moving between pages usually feels predictable and low-effort. Most screens follow a logical hierarchy, and it's generally clear where users should go next. One logical flaw I found: <ul style="list-style-type: none"> - Current behavior: Add Item → Set Currency → (Back) → Pay page (from the Home dollar icon) - Expected behavior: Add Item → Set Currency → (Back) → Add Item Also, a few tasks—like connecting to Wi-Fi or adding new items—require more steps than necessary. These flows could be tightened so users don't have to jump across multiple screens or guess which action leads forward.
Button	3	Most buttons are well-sized and easy to tap, and overall responsiveness

Placement & Responsiveness		<p>feels good.</p> <ul style="list-style-type: none"> - The only real friction appears on screens that require typing (password entry, adding/editing items). On a small screen, it would be better to separate characters from numbers and symbols, similar to mobile keyboards. - Buttons that cannot perform an action in certain scenarios (e.g. pagination jumps like “-5” when users are on the second page of the currency list) should be visually disabled to avoid confusion. - On the item creation page, the save button is not enabled until all fields are filled. In this case, either disable the button until all the fields are filled or highlight incomplete fields when click on the button to inform users. <p>Assess text clarity, color contrast, and visual balance.</p>
Visual Hierarchy & Readability	2	This area needs the most attention. While most text sizes are readable and the dark background provides good contrast for primary text, the platform lacks a clear visual hierarchy. There doesn't seem to be a secondary text color, which makes all text compete at the same visual weight. Some pages—like the item detail page—also have misaligned text fields, creating a disorganized look and hurting readability.
Configuration & Settings	4	Overall, system configuration options like WiFi, timezone, and sound are easy to locate and understand. The main accessibility concern is typing: input fields are small, and finger-based typing can be difficult—especially for users with limited dexterity or motion challenges. Larger input areas or alternative input methods would improve accessibility.
Feedback & System Status	3	<p>Button clicks produce clear audio feedback, which helps users understand when an action is registered. However, progress and error feedback can be strengthened.</p> <ul style="list-style-type: none"> - When the scanner successfully reads a QR or barcode, it should play a confirmation sound—relying only on a brief green light is easy to miss. Adding more consistent audio or visual cues would make the system feel more reliable.
Aesthetic Consistency	4	The color palette and typography feel consistent across the interface, and the icon style is generally uniform. The main issue is icon sizing—some icons appear noticeably larger or smaller than others, which breaks visual balance. For example, on the Add Item page, the bottom-row icons vary in scale and create a slightly uneven look. Standardizing icon sizes would make the UI feel cleaner and more intentional.
User Flow Efficiency	2	This area definitely needs attention. Many common actions require more steps than necessary. For example, adding an item currently goes through: Inventory → Add Item → Set Name → Confirm popup → Type name → Save, and that's just for a single field. With additional fields like price, product code, image, and currency, the flow becomes even heavier. The confirmation popup feels unnecessary, and currency should default to a common option to reduce friction. When updating an item, the current flow triggers a confirmation popup for every individual field, which slows users down. Instead of adding an Edit button, the simplest approach is to allow users to tap any field and edit it directly (since users can tap on “Back” to discard changes). This removes unnecessary steps and makes the whole process much faster and more intuitive. Overall,

		several steps can be removed or streamlined to make the process faster and less tiring.
Accessibility & Localization	3	<p>The language and icon meanings could be clearer.</p> <ul style="list-style-type: none"> - I feel like it'd be better to use title and sentence case throughout the platform. Avoid using UPPERCASE as those are harder to read. - Terms like "SSID" may feel unfamiliar to many users—renaming it to "Wi-Fi name" would be more intuitive. - "Confirm" should be re-worded to "Delete" for the delete popup modal when it asks "Do you want to delete item?" - Some icons, such as Connect and Disconnect on the Wi-Fi page are hard to interpret without labels. - The printer icon on the Settings page is ambiguous. Tapping it toggles between "A" and "B," but there's no indication of what those modes mean, so the interaction feels unclear. Moving "Printer" into the main settings list—similar to how "Sound" is handled—would make the option more discoverable and give room for proper labels, reducing confusion. - The current Save icon looks dated and may not be immediately recognizable to all users. Replacing it with a modern checkmark icon would align better with current UI patterns and make the action clearer at a glance.
Overall UI/UX Impression	3	The system is functional and generally intuitive for basic navigation, thanks to consistent layouts and straightforward button placement. However, several areas need refinement before it feels polished and ready for real-world use. Key workflows involve too many steps, visual hierarchy is weak, some icons lack clarity, and accessibility (especially typing) needs improvement. With targeted cleanup and simplification, the system could feel much smoother and more modern.

6. Hardware Evaluation

Item	Rating (1-5)	Comments
Form & Stability	4	The size and weight feel appropriate for a POS device—similar to standard units and generally stable on the counter. The only limitation is the screen size, which feels a bit small for touch interactions and could benefit from being larger to improve readability and ease of use.
Surface Texture	2	The material feels sturdy, but the surface is quite hard and the edges are sharper than expected. Some corners feel rough enough that they could scratch or irritate fingers during regular use. Softening or rounding the edges would improve comfort and safety.
Screen Readability	5	Looks great under all lighting.
Port Accessibility	4	The ports are generally reachable, but I ran into an issue with the power plug. The original plug couldn't fit into my socket in China—the metal prong was slightly larger than the socket size. I had to replace the plug for it to work.
Port Options	5	I'm not a hardware expert, but the port setup seems straightforward.

		There's only one power port, so it's easy to find and use.
Power Reliability	5	No issues observed during testing.
Build Quality	5	The unit feels solid and well-assembled. All components fit tightly, and nothing shifts or loosens even when the device is rotated.
Thermal Comfort	5	The device stays cool during use.
Aesthetic Appeal	4	The hardware design looks simple and functional. The overall shape is consistent with typical POS machines. It doesn't look premium, but it does look professional enough for retail or small-business environments.

7. Usability Heuristics Evaluation

Item	Rating (1-5)	Comments
Visibility of System Status	3	<p>System feedback is generally responsive, but there are several moments where behavior feels unresponsive or ambiguous.</p> <ul style="list-style-type: none"> - On the Auth Code page, clicking the Back icon produced no visible response, even though it is expected to navigate back to the Settings page. - During initial CKB/BTC address setup, selecting "None" did not clearly indicate that the QR scanner on the side of the device was active. Because attention is primarily focused on the main LCD screen, the lack of a visual cue made the expected scanning action easy to miss. - When adding a new item, tapping the Delete, Duplicate, or Upload Image icons resulted in no action, which can be confusing without disabled states or feedback. Additionally, if required fields are left empty, the system prevents saving but does not highlight which fields are missing or that all fields are required. - On the Currency List page (page 2), the -5 pagination button is non-functional when fewer than five pages exist; this control should be disabled or visually de-emphasized when unavailable. - Once a WIFI is connected, if I click on the Wi-fi name again, I don't expect it to disconnect the WIFI but to simply show me the wifi list. - There's about a 2-second delay after tapping 'Confirm' on the Sales → Choose Asset page.
Match Between the System and the Real World	3	<p>Some interactions align with real-world expectations, such as QR-based scanning. However, several key concepts and workflows are not intuitive for non-technical merchants.</p> <ul style="list-style-type: none"> - On the payment page, the cashier's primary task is to enter the payment amount and present a QR code for the customer to scan, yet the UI lacks sufficient visual hierarchy to clearly highlight these actions. As a result, the main task does not stand out from secondary information. - In addition, some terminology is ambiguous or overly technical. For example, the label "Quantity" on the payment page is unclear in a payment context and does not clearly communicate that it represents the total amount to be paid. Similarly, using "SSID" in the Wi-Fi setup flow assumes networking knowledge; replacing it with "Wi-Fi name" would better match everyday language and user expectations. - The sales workflow does not fully align with real-world POS

		expectations. The empty invoice screen and lack of scanner status make it unclear when scanning begins, and showing only the last scanned item forces users to rely on memory instead of a visible cart.
User Control and Freedom	5	User control and exit options are generally strong. The persistent bottom navigation makes it easy to go back or return to the home screen at any time, and destructive actions such as deleting items or restoring factory settings are appropriately protected by confirmation screens.
Consistency and Standards	3	<p>Visual styling and iconography are generally consistent across the platform, which helps establish familiarity. However, some UI component usage is ambiguous and can create misleading affordances.</p> <ul style="list-style-type: none"> - The printer icon on the settings page is ambiguous—clicking it only toggles between “A” and “B,” with no explanation of what these states represent. Without labels or feedback, users cannot infer the meaning or outcome of this action. - Page titles use the same visual treatment as clickable elements, which may suggest interactivity where none exists. - Pagination patterns are inconsistent across list views. The Wi-Fi list uses only +1 / -1 navigation with arrow icons, while currency and inventory lists introduce +5 / -5 page jumps without accompanying icons. These differences require users to relearn controls across similar screens. Standardizing component behavior and visual cues for titles and pagination would improve predictability and reduce confusion. - When entering the “Choose Asset” step via different entry points (Sales vs. Manual Request), the system presents two visually and structurally different screens for the same action.
Error Prevention	4	<p>The system does a strong job of preventing errors. Numeric inputs for payment amounts restrict invalid characters and reduce common entry mistakes, and all destructive actions (such as deleting items or restoring factory settings) are protected by confirmation dialogs that allow users to double-check before proceeding. These safeguards effectively prevent accidental or irreversible errors during normal use.</p> <p>That said, some input screens use very small touch targets, which can increase the likelihood of mis-taps during data entry. While this does not affect validation or confirmation logic, increasing tappable area sizes would further reduce the risk of input errors, especially in fast-paced cashier environments.</p> <p>The current barcode workflow allows product codes that can generate invalid or lossy barcodes due to hidden encoding constraints. Because these issues are not detectable at the time of entry, errors may only surface later during printing. This places the burden of error detection on cashiers rather than preventing the error at the source.</p>
Recognition Rather Than Recall	4	<p>The interface generally supports recognition over recall. Most screens display a clear page title, helping users understand their current location within the system.</p> <p>When editing inventory items, the field name is shown inside the textarea, which helps indicate what is being edited. However, this text behaves as pre-filled content rather than a true placeholder, requiring users to delete it before entering their own input. Moving this information to a persistent page title or field label would improve clarity and reduce unnecessary interaction. Check out this screen.</p>

		The current sales flow relies on recall rather than recognition by displaying only the most recently scanned item. Cashiers must remember previously scanned items instead of being able to visually confirm the full list, which increases cognitive load and the likelihood of scanning errors.
Flexibility and Efficiency of Use	2	<p>The interface does not consistently support efficient use, particularly for experienced users.</p> <ul style="list-style-type: none"> - On the payment page, elements are given similar visual weight, which distracts attention from the cashier's primary task and slows down interaction. Instead of enabling quick, confident actions, the layout requires additional interpretation. - In inventory management, unnecessary confirmation modals appear when adding or updating item fields, interrupting the flow and reducing efficiency for routine tasks. These interruptions make repeated actions feel slower than necessary. - During the sales workflow, restricting deletion to only the latest scanned item reduces flexibility and slows down common correction actions. In real POS workflows, cashiers expect to quickly adjust or remove any item in the cart without restarting the sale.
Aesthetic and Minimalist Design	3	<p>The interface generally aligns with the product's technical and minimalist brand style, and text contrast is readable across screens. However, several pages feel visually cluttered due to too many elements being given similar visual weight. On screens such as the payment and item detail pages, primary actions do not stand out clearly from secondary information, which reduces clarity and focus. Simplifying layouts, de-emphasizing non-essential information, and hiding infrequent actions would improve visual hierarchy and better support a minimalist design approach.</p> <p>Additionally, on screens that require user input, many touch targets are too small for comfortable finger interaction, which makes precise tapping difficult and increases the risk of errors.</p>
Help Users Recognize, Diagnose, and Recover from Errors	2	<p>Error handling feels absent. In several scenarios, the system fails silently without informing users what went wrong or how to recover.</p> <p>When entering an incorrect Wi-Fi password and tapping Connect, no error message is shown and the connect icon disappears, leaving the system state unclear.</p> <p>Scanning a QR code that does not contain a valid CKB address produces no feedback or error message on the address page.</p>
Help and Documentation	3	<p>The external ePub documentation is helpful and can significantly improve the overall onboarding experience. However, on-device guidance is limited. Many actions rely on icon-only controls without labels or tooltips. While common icons such as Back, Home, Settings, and Delete are easy to understand, more specialized icons—such as Printer, Factory Reset, and Connect/Disconnect—lack sufficient explanation and may confuse non-technical users. Adding labels, tooltips, or brief onboarding prompts for these actions (even on the external ePub) would greatly improve clarity.</p>

8. Open ended questions

Which features felt most seamless or efficient to use?

Basic actions such as editing and deleting inventory items felt smooth and reliable

The exchange rate calculation feels responsive and updates immediately as the fiat amount is entered, which makes the payment flow feel fast and predictable

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

Unclear payment workflow:

It is not always obvious how to initiate a payment or what the next step is during the payment flow. Ambiguous entry points and weak visual hierarchy cause hesitation, especially when first creating a payment.

Low discoverability of QR scanning during initial setup:

Scanning a QR code to load a CKB/BTC address is required during setup, but the scanner is placed on the side with minimal visual cue. This makes it easy to miss, and the expected action is not immediately clear.

Did the system always provide clear feedback?

Feedback is generally clear during normal interactions, but not always consistent. In several error-handling scenarios, the system remains silent and does not clearly indicate what went wrong or how to recover, which can leave users uncertain about the current state.

What parts of the UI could be simplified or reorganized?

Payment workflow (high priority):

The overall payment flow would benefit from clearer entry points, stronger visual hierarchy, and a more explicit step-by-step progression. Key actions such as initiating a payment, entering the amount, and proceeding to checkout are not always obvious.

Sales workflow (high priority):

The sales workflow lacks clear system states and a linear progression. It is often unclear when scanning starts, what has been scanned so far, and when the user should move from scanning to payment, increasing cognitive load during checkout.

Scan and store CKB/BTC address:

The QR scanning area lacks sufficient visual cues, making it easy to miss during setup. This step should be more prominent and clearly framed as a required action.

Wi-Fi connection flow:

The Wi-Fi setup could be simplified with clearer status indicators and more guidance around connection progress and success/failure states.

Add and update inventory items:

Item detail pages feel cluttered, with too many actions visible at once. Hiding infrequent or context-dependent actions and removing unnecessary confirmation modals would streamline the workflow.

Printed receipt:

While legible, the receipt's information hierarchy can be improved. Emphasizing the primary payment information and de-emphasizing secondary blockchain details would make it easier to understand at a glance.

I've mocked up some workflows in Figma:

<https://www.figma.com/design/DIXejaCVnrckIx89QWMU3J/Blackbox-suggestions?node-id=0-1&t=edPgb0f73P5RGO2Z-1>

Did you experience any lag or unpredictability?

After waking the device from a sleep or idle state, the interface often takes an additional 4–5 seconds before becoming responsive, which creates a perception of lag.

On the item detail page, navigating to the currency list and tapping Back without making a selection automatically assigns “Sat” as the currency. This behavior is unexpected; the system should retain the previous value or default to USD instead of making an implicit selection.

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

I like the overall minimal theme since less is more. But I think we should definitely work more on the visual hierarchy .

Describe your first impressions of the physical device.

The device looks solid and well-built. Its black, technical aesthetic fits the “Blackbox” branding and gives it a professional, reliable feel.

Are the ports and cables positioned conveniently?

The single power port is easy to locate and plug in, so overall the ports and cable setup feel straightforward.

How does the screen perform in various lighting?

The screen performs well across different lighting conditions.

What improvements would you suggest to the external design?

The corners and edges should be smoother, since cashiers will handle and reposition the device frequently. The width could be reduced by 1–2 cm to make it easier for people with smaller hands to grip comfortably.

It would also be better to place the scanner camera on the same side as the LCD screen instead of on the edge. With the current side-mounted scanner, users often have to flip the device or balance it at the edge of the counter to scan items, which is awkward and unstable. A front-facing scanner would let users see feedback directly on the LCD screen and make the scanning motion much more natural.

Finally, increasing the LCD screen size would improve readability and make touch interactions easier.

Misc:

There is a minor typo on the item detail page where “Description” is misspelled as “Descrption.”

When designing workflows, I’d recommend starting from the user’s primary task and design backward. Since the target audience for this product is cashiers, observing their daily workflows or conducting interviews would be highly valuable. Direct exposure to how cashiers operate in real-world contexts can help identify essential steps, reduce unnecessary interactions, and ensure that key actions are emphasized appropriately in the interface. This task-driven approach would significantly improve clarity, efficiency, and consistency across the system.

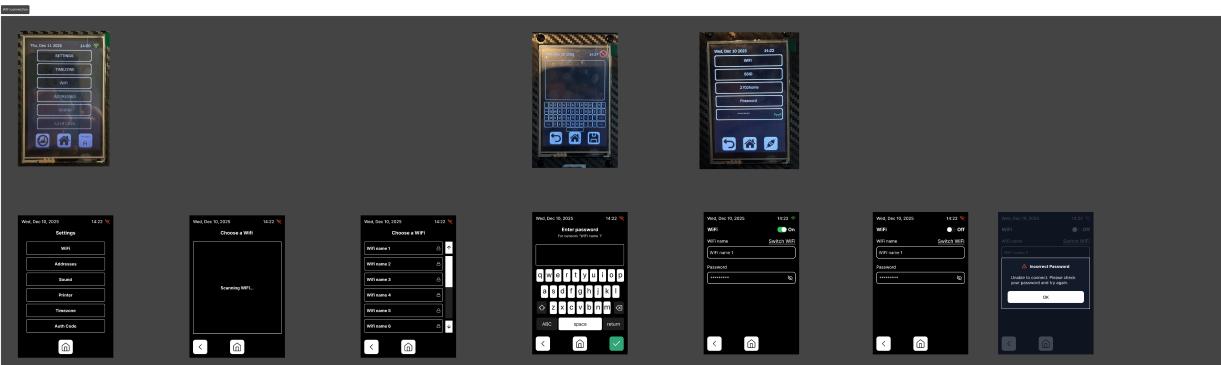
The UI/UX sections of the testing pack would benefit from a task-driven format. Organizing evaluation around concrete scenarios (e.g., Task 1: Create a payment) and asking evaluators to identify issues relative to usability heuristics within that context would produce more intuitive, consistent, and actionable feedback.

Appendix: Visual suggestion exports (Figma)

Scan & Store address



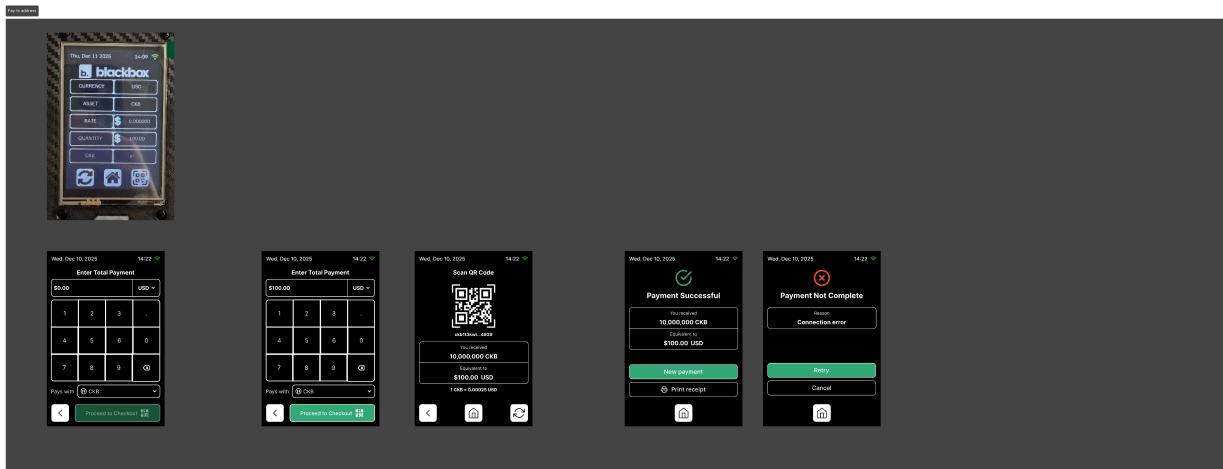
WIFI connection



Sales checkout



Pay to address



Appendix: Hardware Metrics Log Sheet

Date	Session Duration (min)	Observed Warmth (None / Mild / Noticeable)	Noted Issues	Power / Port Comments	Comfort & Handling Notes
Dec 10, 2025	180	None		The initial power plug is incompatible with CN socket (shouldn't be a problem when testing locally); replacement required in my	Edges feel sharp; screen slightly small for touch input

				case	
Dec 11, 2025	120	None		None	Same as above
Dec 12, 2025	120	None		None	Same as above
Dec 13, 2025	60	None		None	Same as above
Dec 14, 2025	40	None		None	Same as above
Dec 15, 2025	10	None		None	Same as above
Dec 18, 2025	10	None		None	Same as above
Dec 19, 2025	20	None		None	Same as above

Guopeng

Setup and scenarios feedback (section 3)

n/a

4. Software Evaluation

Item	Rating (1-5)	Comments
Setup Ease	4	I had no idea how it worked on my first try. When I tried to enter the WiFi password manually with my fingers, it wouldn't work. Later, it worked fine when I used a stylus.
System Performance	3	Speed Performance: I was not used to it at first and felt it was a bit slow, but it got better once I got accustomed to it. Stability Performance: It may be related to the network. Occasionally, operations may freeze for more than 30 seconds. (P.S.: This may happen once or twice during prolonged usage.) Operation: Barcode scanning – may fail to read the code. Operation: Sale interface – asset selection.
Responsiveness	4	The system feedback is functional, but there is a slightly high latency.
Function accuracy	4	Due to screen malfunctions, all data cannot be displayed properly, resulting in slight discrepancies between the displayed results and the calculated values. Example: $1000 / 0.002422 = 412881.916$ (screenshot shows 412926 displayed instead)
Payment processing flow	4	The ease of use for sending payment amounts is acceptable. Barcode scanning can be slow at times.
Inventory Management	3	The product code is non-standard when adding items, which may result in barcode scanning failures occasionally. After successfully adding and saving an item, the newly added item cannot be found in the query. Typing errors are prone to occur when entering information during item creation.
Invoice and record generation	5	invoice generation accuracy
Data handling and storage	5	-
Reliability	4	Prolonged operation may lead to occasional system freezes, which require a restart to resolve.
Error handling and messaging	4	Scanning an invalid barcode yields no feedback.
System Stability	4	When subjected to rapid input, the system fails to respond in a timely

& Recovery		manner.
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5. UI/UX Evaluation

Item	Rating (1-5)	Comments
Navigation and Menu Flow	4	-
Button Placement & Responsiveness	4	-
Visual Hierarchy & Readability	4	-
Configuration & Settings	5	-
Feedback & System Status	3	-
Aesthetic Consistency	4	-
User Flow Efficiency	4	-
Accessibility & Localization	2	Only supports English
Overall UI/UX Impression	4	-

6. Hardware Evaluation

Item	Rating (1-5)	Comments
Form & Stability	3	It has a relatively large form factor but is lightweight, and will not easily tip over when placed on a countertop.
Surface Texture	3	Texture is mediocre
Screen Readability	4	
Port Accessibility	-	
Port Options	4	
Power Reliability	4	It enters standby mode after prolonged inactivity and functions without any issues.
Build Quality	4	
Thermal Comfort	5	No noticeable warmth or hot spots
Aesthetic Appeal	3	

7. Usability Heuristics Evaluation

Item	Rating (1-5)	Comments
Visibility of System Status	4	
Match Between the System and the Real World	5	
User Control and Freedom	5	The back function is highly convenient.
Consistency and Standards	5	
Error Prevention	5	
Recognition Rather Than Recall	5	Users do not need to manually re - operate the tokens after switching screens.
Flexibility and Efficiency of Use	4	After learning through the user documentation, new users can operate the system with ease.
Aesthetic and Minimalist Design	4	
Help Users Recognize, Diagnose, and Recover from Errors	4	
Help and Documentation	4	

8. Open ended questions

Which features felt most seamless or efficient to use?

Manual request

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

No

Did the system always provide clear feedback?

Normal operations yield clear feedback, but certain error reports may lack clarity in their messages.

What parts of the UI could be simplified or reorganized?

Some non-essential UI elements can be hidden temporarily, such as 3rdPART CODE on the main interface and PRINT BARCODES in the inventory module.

Did you experience any lag or unpredictability?

It occasionally freezes and requires a restart.

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

It's clear and straightforward, enabling users to get up to speed quickly.

Describe your first impressions of the physical device.

The device is pretty big, stays stable on flat tables, and has sharp edges. The screen feels kinda retro, and once you fire it up, the functions are super clear and easy to pick up.

Are the ports and cables positioned conveniently?

No problem

How does the screen perform in various lighting?

Since it requires a power strip for operation, all tests are conducted indoors, and the screen brightness performs normally.

What improvements would you suggest to the external design?

none

Final comments: I've reported all the problems above. Basically, it works fine when you use it normally, but it might freeze occasionally after using it for a long time, and sometimes barcode scanning doesn't work.

Jacky

Setup and scenarios feedback (section 3)

Uploading images via WiFi connection needs to be optimized as I have to manually limit the image size to less than 300x300 pixels. “Generate invoices; verify totals” is not supported on my device (v.0.2.1) at present. The rest of the scenarios work well.

4. Software Evaluation

Item	Rating (1-5)	Comments
Setup Ease	4	I give it 4 points. Most of the configurations can be done without reading the manual. But I do need to follow the guide to bind the BTC/CKB addresses and upload images to the device via WiFi for the first time.
System Performance	2	I give it 2 points. The on-screen buttons are a little slower to respond than I expected. Sometimes I mistakenly think I failed to click them. Moreover, some buttons won't function properly under certain circumstances, e.g. when I need to shut down the Authentication Code, the Return button doesn't work, and I have to use the Home button to exist.
Responsiveness	2	I give it 2 points mainly because there aren't any error prompts.
Function accuracy	5	I give it 5 points. The exchange rates are accurate.
Payment processing flow	3	I give it 3 points. Creating and printing the invoice is easy, but confirming payments need to rely on the blockchain confirmation and we have to check the status on external blockchain explorer.
Inventory Management	3	I give it 3 points. Adding, editing and deleting inventory items are easy, but typing the letters is not a good experience because the on-screen keyboard is too small so it is very difficult to click, and the response is slower than expected.
Invoice and record generation	4	I give it 4 points. As I reported in the Discord group, the printing is uneven in clarity, although it didn't affect QR code scanning. This is likely a problem with the thermal printing paper itself.
Data handling and storage	5	I give it 5 points as it works well on my end.
Reliability	5	I give it 5 points as it works well on my end.
Error handling and messaging	2	I give it 2 points as there are no error warnings or suggestions.
System Stability & Recovery	5	I give it 5 points as it works well on my end.

5. UI/UX Evaluation

Item	Rating (1-5)	Comments
Navigation and Menu Flow	4	I give it 4 points. On the settings page, I often mistakenly think the first “SETTINGS” button will work as it looks the same as other buttons. So do other first buttons on different pages.

Button Placement & Responsiveness	2	I give it 2 points, mainly for the slow response of on-screen buttons and small size of keyboard.
Visual Hierarchy & Readability	4	I give it 4 points, as it looks good to me.
Configuration & Settings	5	I give it 5 points. But I'm more familiar with UTC than GMT, though they are the same for everyday purposes.
Feedback & System Status	1	I give it 1 point as I haven't noticed where I can see the progress or errors.
Aesthetic Consistency	4	I give it 4 points as it looks good to me.
User Flow Efficiency	4	I give it 4 points as most common actions are straightforward.
Accessibility & Localization	5	I give it 5 points as it works well on my end.
Overall UI/UX Impression	4	I give it 4 points.

6. Hardware Evaluation

Item	Rating (1-5)	Comments
Form & Stability	3	I give it 3 points. The size is acceptable but there is room for improvement.
Surface Texture	3	I give it 3 points. It is recommended that the sharp corners around the machine be rounded to improve the feel.
Screen Readability	2	I give it 2 points. Not easy to use under dim lighting.
Port Accessibility	5	I give it 5 points as it looks good to me.
Port Options	5	I give it 5 points as it looks good to me.
Power Reliability	5	I give it 5 points as it works well on my end
Build Quality	4	I give it 4 points as it looks good to me.
Thermal Comfort	5	I give it 5 points as it works well on my end
Aesthetic Appeal	3	

7. Usability Heuristics Evaluation

Item	Rating (1-5)	Comments
Visibility of System Status	2	I give it 2 points as I haven't found the visible progress bar.
Match Between	4	

the System and the Real World		
User Control and Freedom	3	
Consistency and Standards	3	
Error Prevention	1	I give it 1 point as there is no error prevention.
Recognition Rather Than Recall	5	
Flexibility and Efficiency of Use	2	I give it 2 points as there are no quick-access paths.
Aesthetic and Minimalist Design	3	
Help Users Recognize, Diagnose, and Recover from Errors	2	I give it 2 points as there are no error messages or suggestions.
Help and Documentation	3	I give it 3 points as the epub guide and videos are helpful. But there are no help icons or tool tips on the device.

8. Open ended questions

Which features felt most seamless or efficient to use?

Comments: Printing the invoice.

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

Comments: 3rd Party Code. Apply Sale %.

Did the system always provide clear feedback?

Comments: No, it misses the error messages.

What parts of the UI could be simplified or reorganized?

Comments: WiFi, as the page looks a bit complicated.

Did you experience any lag or unpredictability?

Comments: Yes, lag in printing invoices and barcodes.

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

Comments: It looks good to me.

Describe your first impressions of the physical device.

Comments: At first glance, this machine seems flimsy and easily damaged.

Are the ports and cables positioned conveniently?

Comments: I prefer the power cable connector to be on top rather than on the bottom.

How does the screen perform in various lighting?

The screen brightness is okay, but the clarity is average.

What improvements would you suggest to the external design?

The power cable connector is better to be on top rather than on the bottom.

The machine's corners should be rounded instead of sharp.

The printer paper box has more space because I can't fit the rolls I bought from Chinese e-commerce platforms.

Add a physical power button.

Final comments: Overall, this device exceeded my expectations; as a product prototype, it is highly complete.

Alive

Setup and scenarios feedback (section 3)

Settings:

The title "Settings" of the settings page is using the same button component which is confusing.

"Load addresses" does not properly verify the address keyed in: I scanned a CKB address for the BTC part and it stores without question.

In Timezone, it did not attempt to sync time (showing 1970) until I changed timezone from +9 to +8

Fund Request

Crashes stably after clicking confirm in Fund Request -> Sale > Choose Asset without choosing an asset first. It should provide a default choice of asset and memorize it, so users would not need to choose again (thus skipping one step) unless they want to change.

In manual request, the QR code generated on screen is not valid; only the code in the printed receipt is valid.

Network Issue:

(Fixed) In China it's not loading oracles properly so it's showing Inf. It didn't check if the rate was valid and didn't show messages of failure.

Inventory: I printed the code for one of the existing items, but the sale didn't recognize it. Not sure if it's implemented already.

4. Software Evaluation

Item	Rating (1-5)	Comments
Setup Ease	3	The start up guidance didn't cover everything needed to make a simple manual request (setup addresses, timezone, etc), and it should have prompted for required settings before outputting invalid data.
System Performance	4	Except for the stable crash mentioned above, it's very smooth. It's not possible to test stress conditions at the moment
Responsiveness	3	It's possible to finish all current features eventually while the prompts are not very intuitive.
Function accuracy	5	
Payment processing flow	4	
Inventory Management	3	
Invoice and	4	

record generation		
Data handling and storage	5	
Reliability	5	Crashes are predictable.
Error handling and messaging	-	
System Stability & Recovery	5	

5. UI/UX Evaluation

Item	Rating (1-5)	Comments
Navigation and Menu Flow	3	
Button Placement & Responsiveness	4	Should reduce steps for most common use cases.
Visual Hierarchy & Readability	4	
Configuration & Settings	3	
Feedback & System Status	3	
Aesthetic Consistency	5	
User Flow Efficiency	3	
Accessibility & Localization	4	
Overall UI/UX Impression	3	

6. Hardware Evaluation

Item	Rating (1-5)	Comments
Form & Stability	5	
Surface Texture	4	
Screen Readability	5	
Port Accessibility	5	
Port Options	4	
Power		n/a at the moment

Reliability		
Build Quality	4	
Thermal Comfort	5	
Aesthetic Appeal	5	

7. Usability Heuristics Evaluation

Item	Rating (1-5)	Comments
Visibility of System Status	4	Make the loading indicator animated.
Match Between the System and the Real World	4	
User Control and Freedom	5	
Consistency and Standards	4	
Error Prevention	3	
Recognition Rather Than Recall	5	
Flexibility and Efficiency of Use	3	
Aesthetic and Minimalist Design	4	
Help Users Recognize, Diagnose, and Recover from Errors	3	
Help and Documentation	3	

8. Open ended questions

Which features felt most seamless or efficient to use?

Manual request

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

Add item and scan

Did the system always provide clear feedback?

Good enough for this stage

What parts of the UI could be simplified or reorganized?

Manual request should be the default screen. Sales should be triggered when scanning.

Did you experience any lag or unpredictability?

N/A

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

Styles are good. Should migrate to larger screen and higher resolution early.

Describe your first impressions of the physical device.

Legit.

Are the ports and cables positioned conveniently?

Good enough at this stage.

How does the screen perform in various lighting?

Good enough.

What improvements would you suggest to the external design?

Good enough at this stage.

Final comments: Good enough at this stage. Challenges are in other workflows (flat, NFC tapping, etc) and efforts are to be put into the UX/UI while the hardware implementation seems promising and on track.

Tianlitaо

Setup and scenarios feedback (section 3)

Yes, most of the functions are as expected. Any issues were raised in the Discord group and toastmanphillip has since fixed them.

4. Software Evaluation

Item	Rating (1-5)	Comments
Setup Ease	4	
System Performance	4	
Responsiveness	3	
Function accuracy	5	
Payment processing flow	3	
Inventory Management	4	
Invoice and record generation	4	
Data handling and storage	4	
Reliability	3	The automatic update button is unresponsive; the touchscreen is not working well.
Error handling and messaging	3	
System Stability & Recovery	4	

5. UI/UX Evaluation

Item	Rating (1-5)	Comments
Navigation and Menu Flow	3	
Button Placement & Responsiveness	3	
Visual Hierarchy & Readability	3	

Configuration & Settings	4	
Feedback & System Status	3	
Aesthetic Consistency	3	
User Flow Efficiency	2	
Accessibility & Localization	3	
Overall UI/UX Impression	3	The navigation bar is misleading; for example, the top option is still "Settings," and it has the same style as the buttons. Prompting a pop-up every time a product is edited is redundant and increases the user's workload.

6. Hardware Evaluation

Item	Rating (1-5)	Comments
Form & Stability	3	
Surface Texture	3	
Screen Readability	3	
Port Accessibility	4	
Port Options	3	
Power Reliability	4	
Build Quality	3	
Thermal Comfort	5	No overheating during long-term operation
Aesthetic Appeal	3	

7. Usability Heuristics Evaluation

Item	Rating (1-5)	Comments
Visibility of System Status	3	The address received the ckb without any notification.
Match Between the System and the Real World	3	
User Control and Freedom	3	The sale page does not have a back button.
Consistency and Standards	3	
Error	5	

Prevention		
Recognition Rather Than Recall	3	
Flexibility and Efficiency of Use	3	Currently, there are no commonly used functions or currencies that have been used in the past.
Aesthetic and Minimalist Design	4	
Help Users Recognize, Diagnose, and Recover from Errors	3	There are almost no error messages now; if there is an error, a restart is usually required.
Help and Documentation	1	

8. Open ended questions

Which features felt most seamless or efficient to use?

The interface is generally straightforward and the basic functions (such as scanning and payment confirmation) work smoothly once you get used to the flow.

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

Yes, the system feedback is not obvious enough. After some actions (e.g., completing a payment or saving a setting), there is no clear visual, so I sometimes hesitated and wasn't sure if the action had been successful.

Did the system always provide clear feedback?

No. System feedback is quite subtle and often delayed. Many actions lack immediate visual indicators (such as loading animations, success messages, or confirmation tones), which makes the experience feel unresponsive at times.

What parts of the UI could be simplified or reorganized?

The overall UI is functional, but the layout could be simplified. Some buttons and information are too densely packed. Reducing visual clutter and improving the spacing between key elements would make it easier to use.

Did you experience any lag or unpredictability?

Yes, there is noticeable lag. The touch screen response is slow and sometimes inconsistent, which affects the overall user experience, especially during fast-paced transactions.

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

The UI is clean and readable, with acceptable screen brightness and contrast.

Describe your first impressions of the physical device.

My first impression was that it is noticeably larger than a typical POS terminal. While it feels sturdy, the size makes it less convenient for mobile or counter use.

Are the ports and cables positioned conveniently?

Yes, the ports and cable connections are well-placed and easy to access, which is a strong point.

How does the screen perform in various lighting?

The screen brightness is acceptable and performs reasonably well in different lighting conditions (indoor and outdoor).

What improvements would you suggest to the external design?

Make the device smaller and more compact overall. Increase the integration level (e.g., fewer external cables or modules). Also, improve the touch screen responsiveness and reduce the overall size to make it more comparable to standard POS terminals.

Final comments:

Overall, the device and its UI are functional and meet basic merchant payment needs, with a solid foundation in usability and a clean, readable interface. The ports and cable layout are particularly convenient, and screen brightness performs well in various lighting conditions. However, the most noticeable pain points are: Slow touch screen response and occasional lag, which significantly impact efficiency during busy transactions.

Subtle and delayed system feedback, making it hard to know if an action was successful.

The physical device feels oversized compared to typical POS terminals, reducing portability and counter space convenience.

Recommendations:

Prioritize improving touch responsiveness and adding clearer, more immediate feedback (visual/auditory cues). A smaller, more compact form factor with higher integration would greatly enhance the overall experience and make it more competitive. In summary: The system is usable but needs refinement in responsiveness, feedback clarity, and hardware size to feel truly modern and merchant-friendly.

Code Monad

Setup and scenarios feedback (section 3)

n/a

4. Software Evaluation

Item	Rating (1-5)	Comments
Setup Ease	4	The boot-up experience is kinda good but i don't know am i right for the screen calibration. Since i have some error touches during the calibration, but it just booted into the main screen
System Performance	4	good but will have some trouble if the connection to over internet is not very good(for example from mainland china)
Responsiveness	5	GTM
Function accuracy	4	The box crashed and rebooted when getting the rate of ckb the first time i tried, but after a firmware upgrade it works good.
Payment processing flow	4	N/A
Inventory Management	2	Not very convenience, will take many time if want modify or add new item
Invoice and record generation	5	Good and accurate
Data handling and storage	5	n/a
Reliability	4	I have been making it powered up for a week. Will have problems if the network is not solid(for example, we are after the GFW so does not have a good connection to indexer that are outside mainland cn)
Error handling and messaging	3	confirmation notice is good. But when met error, for my case it just stucked or reboot
System Stability & Recovery	4	Tried random touches between different menus and no problem

5. UI/UX Evaluation

Item	Rating (1-5)	Comments
Navigation and Menu Flow	4	It is simple enough to know what menu works for what
Button Placement & Responsiveness	5	no trouble interact with those buttons
Visual Hierarchy & Readability	3	should use a better font to clarify 'l' and 'I'
Configuration & Settings	5	No problem with my environment
Feedback & System Status	4	Good enough for most cases
Aesthetic Consistency	3	Need a better font imo
User Flow Efficiency	3	To many confirmations on safe action(description edit, etc). Maybe just have a ui hint for it instead a modal window
Accessibility & Localization	2	currently only timezone and currency is good, others need to improve(i18n, icon meaning)
Overall UI/UX Impression	4	Good

6. Hardware Evaluation

Item	Rating (1-5)	Comments
Form & Stability	4	pretty light. But can have better quality for a more comfortable touch.
Surface Texture	3	Not bad but feels rough in a real touch. noticeable in places like the lifting of lockdowns.
Screen Readability	4	GTM
Port Accessibility	4	Good. But the scan cam's position is weird i will need to pick it up

		from the desktop for a better scan.
Port Options	4	Better have a ethernet port for realworld applications.
Power Reliability	5	No problems
Build Quality	4	Solid, but the seams need optimization
Thermal Comfort	5	cool enough after a long session.
Aesthetic Appeal	3	Simple enough but kinda rough. I think we need a ux designer to help improve it

7. Usability Heuristics Evaluation

Item	Rating (1-5)	Comments
Visibility of System Status	4	after press the refresh button on the payment request page, it will have a noticeable delay and no progress bar or hint
Match Between the System and the Real World	3	The icon will need a decision of its meaning, making people understand what can it do before a touch
User Control and Freedom	5	Good enough
Consistency and Standards	4	good overall.
Error Prevention		n/a
Recognition Rather Than Recall	4	Good in most cases. But the currency list seems to be a static order.
Flexibility and Efficiency of Use	4	It keeps most configurations i selected before. But the list order is still the same, i think maybe it can be dynamically ordered after user's selection.
Aesthetic and Minimalist Design	5	good

Help Users Recognize, Diagnose, and Recover from Errors	4	i did not met the situation where the system has a response to an error. But overall its good.
Help and Documentation	3	<ul style="list-style-type: none"> • The manual doc is not very friendly for non-digital environment • Users can not know the ip address for the device [JUST] using this device

8. Open ended questions

Which features felt most seamless or efficient to use?

Currency translation is good.

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

i don't know

Did the system always provide clear feedback?

yes if it does not crash. But the login page should have a feedback when login failed, instead just refresh it

What parts of the UI could be simplified or reorganized?

inventory management

Did you experience any lag or unpredictability?

no

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

simple ui provides needed information. Can have a new design but usable.

Describe your first impressions of the physical device.

very light despite its size.

Are the ports and cables positioned conveniently?

scan cam need to have a better place in my case.

How does the screen perform in various lighting?

good in many situations.

What improvements would you suggest to the external design?

n/a

Final comments:

A good product idea for crypto payment machine.

Still feels like in a prototype stage, but can be used in real cases.

Could be great after several upgrades imo.