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RESTAURANT USER MANUAL · EDITION 3.9 · FIRMWARE v0.4.28

Wi-Fi service. Ready for your team.

Set up your restaurant, connect wristbands directly to Wi-Fi and rehearse a complete service journey. Staff can use an iPhone, Android phone or computer browser.



Combined Call waiter + Show QR stand and wristband. Product concept; no brand partnership.

One device at the table

Press Call waiter for help or press Show QR for fresh browser access. Shared Wi-Fi wristbands receive service alerts.

Start here

Managers use service.hentro.pt/manage. Installer and product downloads are at service.hentro.pt/downloads.

> Updated 26 October 2026 · Website 0.4.40 · Wristband 0.4.28 · Stand prototype 0.1.2. Training screenshots and enclosure renders are illustrative.

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01 / PREPARE THE VENUE

Before the demonstration.

Check the essentials before enrolling staff or registering a combined table stand.

Charge and check the wristband
Charge each device. Check Firmware v0.4.28 under Settings. Connection offers Sign in & start shift, Wi-Fi setup and Table buttons. Check the network name on Home or Connection.

Use a suitable network
Use password-protected 2.4 GHz restaurant Wi-Fi with internet access. 5 GHz-only networks, browser sign-in / captive portals and enterprise Wi-Fi are not supported in this pilot.

Prepare a setup phone
Use a modern browser on iPhone or Android. Keep internet access available to generate codes before joining the wristband setup network. Customers need only their camera, browser and internet.

Use the dynamic stand
Set up each stand for its restaurant and table. Show QR creates fresh guest access. Printed QR cards remain a legacy option only for tables without registered stands.

Rehearse the room
Test request delivery at every service area, not only beside the router. Battery endurance and coverage depend on venue conditions; verify a complete shift before wider deployment.

> Configured physical table buttons call the wristband directly. No staff phone is needed during service.

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02 / OWNER SETUP

Your restaurant. Your workspace.

The restaurant owner creates the workspace and authorizes staff.

Create and verify the owner account
Open service.hentro.pt/login → Create account. Enter your name and email, then follow the emailed verification link to set a unique password of at least 12 characters. Sign in with your verified email. Keep owner credentials private.

Recover by email
Choose Forgot password? and enter the verified email attached to your account. Follow the single-use reset link within 30 minutes. Check spam if needed. Earlier username accounts should add and verify an email under Account & recovery while signed in; an unattached email cannot recover them.

Create and select the restaurant
Open service.hentro.pt/manage, enter the restaurant name and choose the number of tables. The default is 20; supported QR table counts are 1–200. Check the selected restaurant before any setup action.

Check reporting settings
Set the restaurant timezone and typical party size. Customer totals are estimates from QR visits, not measured footfall.

Add each waiter once
Enter the waiter name and a private six-digit PIN in the manager page, then choose Add waiter. Share the reusable restaurant staff link with the team. No personal email account, invitation or daily enrollment code is required.

Find the right tool
Live service is first. Expand Workspace & account for restaurant setup, Customer page & table stands for content and stand credentials, or Restaurant settings for timezone.

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COMBINED STAND / FIRST SETUP

One stand. Two clear buttons.

An installer provisions the combined stand; managers control its table and customer content.

Register the stand
Expand Customer page & table stands in /manage. Register the correct table and keep its one-time 64-character stand credential private.

Connect restaurant Wi-Fi
First boot shows temporary setup Wi-Fi. Join it, open 192.168.4.1 and enter the 2.4 GHz Wi-Fi and stand credential. Hold Show QR eight seconds to reopen setup later.

Test both buttons
Pair intended wristbands, start a test shift, press Call waiter and confirm acceptance. Press Show QR, scan and verify the 30-second return to the home cards.

Keep content current
Managers save menus/offers in Customer page & table stands. The product owner publishes separate monochrome stand artwork and colour browser adverts from the protected /dashboard.

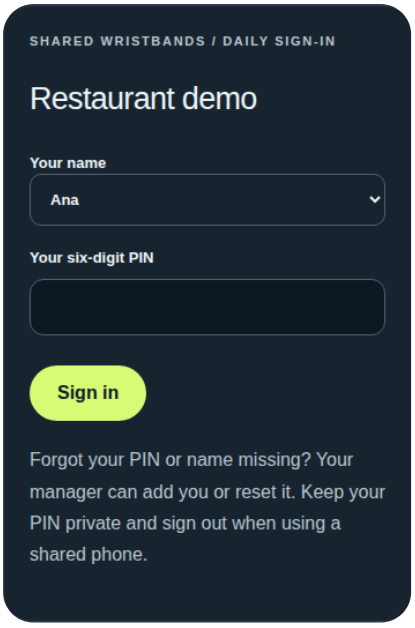
> Stand firmware is separate from wristband OTA. Never share its credential in public screenshots or documents.

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03 / STAFF REGISTRATION

Any phone. One staff PIN.

The restaurant owns the wristbands. Each waiter keeps their own identity and service history.



Mobile staff sign-in: restaurant link, name and private PIN.

Open the restaurant staff link

Use the same restaurant staff link on an iPhone, Android phone or computer. Any modern browser works. Ask the manager for the link; it is not a personal login secret.

Choose your name and enter your PIN

The manager has already registered you. There is no app to install or email account to create. Forgot your PIN? Ask the manager to use Reset PIN on your existing row.

Choose an available wristband

Pick a charged, online wristband and choose Use wristband & start shift. A wristband already in another waiter’s active shift cannot be taken over.

Or sign in on the wristband

In Connection tap Sign in & start shift, choose your registered name and enter the six-digit PIN. Check the visible digits before submitting. Successful sign-in opens Connection with your name and On shift. Wi-Fi and paired table buttons stay saved.

> Sign out of the browser after using a borrowed phone. Browser sign-in alone does not start or end a shift. Staff browser sessions expire after 12 hours; the wristband continues its shift independently.

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04 / CONNECT RESTAURANT WI-FI

Set up once. Work freely.

Connect each restaurant wristband once. Changing waiter never asks for the Wi-Fi password again.

Prepare the restaurant connection link
The manager adds at least one waiter and PIN, then opens Connect a restaurant wristband — once only and chooses Prepare wristband connection. Keep that tab open; the link expires after ten minutes.

Open wristband Wi-Fi setup
On the wristband open Connection → Wi-Fi setup. Join the temporary Hentro setup network from your phone using the displayed password.

Open the prepared link
Return to the manager tab and choose Open wristband setup. The restaurant is filled automatically: no restaurant ID or long code typing. Choose the nearby 2.4 GHz network and enter its password once.

Use the same network for every waiter
After successful connection, return the phone to its normal network. Staff sign in with name and PIN on the wristband or restaurant staff page. No phone gateway is used.

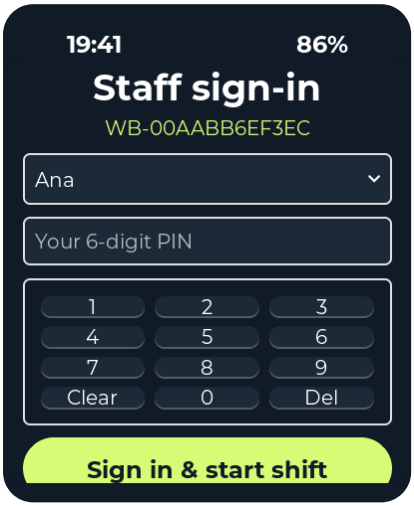
Change networks only when needed
Open Connection → Wi-Fi setup, join its temporary setup network and open http://192.168.4.1. Select a nearby network; saved networks reuse their password. Enter a password only for a new network or changed password. Restaurant registration and table buttons remain saved.

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05 / SHIFT, CLOCK & POWER

The waiter controls the shift.

A successful Wi-Fi connection is separate from being on shift.



Wristband simulator: choose the next waiter and enter their PIN. Scroll for Sign in & start shift.

Start service

In Connection choose Sign in & start shift, your name and PIN. Check the visible digits. After success, Connection shows your name and On shift. Alternatively, use the restaurant staff link on any phone and select an available wristband.

Keep the phone free

Once on shift, the browser page may be closed. Requests go directly over the restaurant Wi-Fi. Keep the wristband within coverage with internet available.

Let the clock synchronize

The wristband obtains internet time and the restaurant's timezone through Wi-Fi / Hentro. No staff phone is required. If time is wrong, check internet connectivity and the manager's timezone setting.

Avoid accidental shift endings

Connection → End shift opens a confirmation. Choose Keep working to cancel, or deliberately confirm End shift. Wait for Off shift before handing over the wristband.

End the shift safely

Complete accepted physical table-button calls first. Choose End shift and wait for confirmation. Unfinished claimed QR requests return to the team queue; completed work retains the original waiter's attribution.

Next shift

The next waiter chooses their registered name and enters their six-digit PIN directly on the wristband, or uses their name and PIN on the restaurant staff page. Their identity changes without Wi-Fi setup. No new Wi-Fi password or setup code is needed. Wi-Fi and paired table buttons stay saved.

> After ending shift, the waiter may choose Settings → Power off to save power. Ending a shift does not turn the device off. Separate low-battery protection automatically powers off below 3% when no valid charger power is present.

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06 / SAVED NETWORKS

Stay connected as you move.

The wristband remembers up to four Wi-Fi networks. Daily staff changes do not repeat network setup.

See the current network

Home and Connection show the connected Wi-Fi name. Connected to Hentro means cloud communication is available; being connected to Wi-Fi alone does not start a shift.

Choose a saved or nearby network

Connection → Wi-Fi setup opens the temporary setup network. Join it on a phone and open http://192.168.4.1. Select a nearby network; previously saved networks reuse their password. Enter a password only for a new network or when it changed.

Recover automatically

If the current network becomes unavailable, the wristband attempts another available saved network. User testing observed recovery in about 20–30 seconds; signal, access-point response and internet availability affect the time. A backup must already be saved.

Leave setup when finished

Cancel setup after use. The screen can sleep during setup and touch wakes it, but the temporary setup network uses extra power until cancelled or its ten-minute timeout.

Check the room

QR/cloud service requires internet. Test all service areas and backup networks before a shift. Local paired table-button calls can continue without internet; dashboard events follow a successful upload.

> Wi-Fi setup changes the network. Sign in & start shift changes the waiter; it does not require new Wi-Fi credentials.

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07 / BATTERY & CHARGING

A clear warning before power runs out.

Charge before service and respond to low-battery warnings early.

At 10%
A three-second popup says Low battery: 10% or less. Please charge. The screen wakes to show it.

At 5%
A three-second popup says Low battery: 5% or less. Charge now. Each threshold warns once during discharge rather than repeatedly interrupting service.

Below 3%
At 0–2%, the wristband shows Low battery: below 3%. Shutting down... for three seconds, then powers off. At exactly 3% it remains on. These battery functions begin with firmware v0.4.28.

If switched on while still too low
After the splash/startup period, a valid reading below 3% shows the message and powers off again. Connect a charger to recover. Valid charger power prevents or cancels this shutdown, even if charging has completed.

Preserve the shift and requests
Charge or end the shift normally before reaching the critical threshold. Low-battery power-off does not complete requests or end a staff shift. Wi-Fi, restaurant registration and table pairings remain saved.

Measure your venue
Earlier founder tests reported up to 12 hours; a later idle test reported about 10 hours. Screen use, reminders, signal and battery age affect endurance. Recent power savings still need a matched field test; do not treat endurance as guaranteed.

> No vibration or extra cloud polling is added for these warnings. Battery-powered shutdown remains a hardware validation check for the pre-production release.

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08 / FIRMWARE UPDATES

Update a wristband from the manager page.

Managers choose which restaurant wristband to update. Publication makes a release available; it does not update every device automatically.

Check eligibility

Open service.hentro.pt/manage → Restaurant wristbands. The device must be online, off shift, at least 30% charged and ready for Wi-Fi updates. Finish active table calls and close setup. Keep power stable during installation.

One-time USB setup if requested

If Enable Wi-Fi updates appears, a qualified installer must install the matching OTA bootloader and application once over USB. The public downloads package includes instructions. Do not erase saved settings or apply unrelated firmware.

Choose Update firmware

When a newer version is available, its device card highlights the update action. Select that wristband and confirm. The card reports queued, downloading/verifying, restarting and the result.

Wait for confirmation

Keep Wi-Fi and power available. After restarting, allow at least 60 seconds of healthy operation and cloud contact. Verify the installed version and Update installed and confirmed before putting the device back into service.

If an update fails

Read the device-card result, restore stable power/internet and retry when eligible. The update system verifies image identity and checksum and includes boot rollback protection. Physical interruption/rollback validation is still a pilot check; never promise zero restarts.

Test before the next shift

Check touch wake, PIN sign-in, QR and table-button calls. The table button is a separate firmware target and is not updated through wristband Wi-Fi OTA.

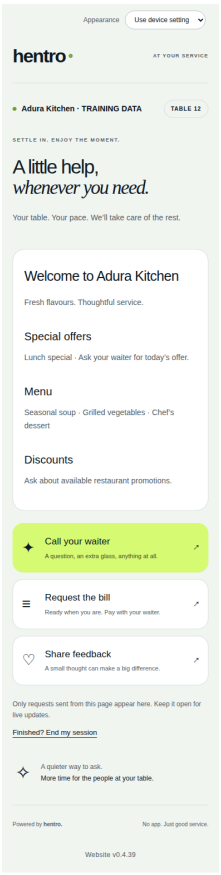
> Firmware v0.4.28 is the low-battery release. Table-button firmware remains v0.4.0. Ask your installer for compatibility checks on older devices.

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09 / CUSTOMER QR JOURNEY

Press Show QR. Scan. Explore.

Use a configured stand for fresh, single-use browser access. No customer app is needed.



Current dynamic-QR customer page · local training data.

Show a fresh code

Press the physical Show QR button. Scan within the 30-second display window; the stand then restores its three home cards.

Open the table page

Check the restaurant/table, then tap Open table page. One browser can redeem the code. Camera preview does not send a call.

Choose what you need

Browse the restaurant menu, offers and discounts. Send one waiter call or bill request and private feedback. The waiter handles payment.

When to scan again

The session expires after ten minutes. Reloading or expiry requires pressing Show QR again and scanning a new code. Saved links do not reopen stand-enabled service.

> A live code can still be forwarded before use. Login is not proof of presence. Loyalty rewards require a separate verified-event programme and remain planned.

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10 / OPTIONAL TABLE BUTTONS

One service workflow. Two inputs.

Use table buttons already provisioned by the installer for the restaurant and correct table numbers.

Use compatible firmware
Update wristbands and physical buttons together to table-button protocol v3. Provisioning a button's table number and restaurant radio credentials remains an installer task.

Open table pairing
On the Wi-Fi wristband, open Connection → Table buttons → Pair a table. The screen shows Searching… 15 s. Physical-button pairing does not use a phone PIN.

Hold and release correctly
Hold the table button until the confirmation LED pulses at about 10 seconds, then release before 15 seconds while the wristband is searching. Pairing starts on release. Check the table appears in the wristband's list.

Repeat for every receiver
Pair each physical button with each wristband that should receive its calls. A pairing on one wristband does not automatically pair another.

Run the complete test
With the Wi-Fi wristband connected to Hentro and on shift, press the table button briefly. Accept on one wristband, verify other receivers show acceptance by another, then Complete after serving.

Check manager visibility
Button events upload directly through an on-shift Wi-Fi wristband. Offline events may arrive later. Button calls are shown separately from QR requests in reports.

> A 15–20 second button hold clears saved pairing; a hold of 20 seconds or more triggers stuck-switch protection. Use the first LED cue and release before 15 seconds to pair.

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11 / MANAGER LIVE VIEW

See the team. Keep records accurate.

Live operations appear first at service.hentro.pt/manage. Expand the other sections only when needed.

Expand Wristbands & battery
See charge level, charging state, observed discharge time and estimated time to 2%. Low readings are flagged in the collapsed summary. Green staff means online and on shift.

Expand Team & access
Register staff, edit names or reset a PIN. Revoke only when appropriate. Minimising a tool preserves unfinished edits.

Remove old registrations
Revoke access first, then use Delete from list on the revoked entry. This clears list space while retaining historical service attribution and totals.

Follow active operations
Live service includes QR calls and uploaded button calls. Waiting-time badges prioritize unresolved requests; timing marked estimated is excluded from accurate averages.

Clear stale test or inactive button records
For a call no longer active on the wristbands, use Close inactive call and confirm after checking with staff. The record leaves Live service and does not count as served. Delayed uploads cannot reopen that same closed call.

Understand cleanup scope
Closing an inactive call updates its dashboard record. It does not cancel a genuinely active local wristband alert. Never close a call just to make the dashboard look clear while a guest is waiting.

Expand Reports & insights
Review shifts, feedback, charts and recommendations while live queues stay visible. First-response summary covers seven days; guest estimates are not a people counter.

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12 / DEMO CHECKLIST & HELP

Rehearse before guests arrive.

Use this checklist for today’s demo and repeat it before the first live shift.

□ Owner workspace has the right restaurant, timezone and table count.

□ Waiter registered under their own name; Wi-Fi wristband is connected and On shift.

□ Guest QR call reaches the wristband; Accept and Complete work.

□ A fresh QR scan shows no previous guest’s requests.

□ A configured table-button call reaches every intended wristband.

□ Manager Live service updates; button and QR reporting are separate.

□ Screen-off touch wake and request alerts work at service-room distances.

□ Waiter ends the shift, confirms Off shift, then manually powers off from Settings.

192.168.4.1 will not open

Rejoin the wristband’s Hentro setup network, stay connected without internet and type http://192.168.4.1 in the browser. Confirm the setup window is still open.

Wi-Fi or first setup fails

Confirm 2.4 GHz coverage and select the exact network name. A new password is needed only when changing to a new network. A fresh prepared link is needed only for initial restaurant registration. If Restaurant access removed appears, ask the manager to use Restore wristband access; do not erase Wi-Fi or table pairings.

Connected but no requests

Check On shift, current internet access, the correct restaurant and table, and the individual button’s pairing list. A connected device can still be Off shift.

> Help: service.hentro.pt/downloads · Product: hentro.pt. Never share owner credentials, PINs, network passwords or private setup links on public table cards.

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PRODUCT ROADMAP / NOT YET AVAILABLE

A fresh QR. A more trusted table.

The working table-stand prototype combines Call waiter and Show QR with an e-paper display. Guests use their phone camera and browser. No customer app is required.

Press the Show QR button

The stand displays its cached code before connecting to Wi-Fi to activate it and prepare the next code. The QR stays on screen for 30 seconds, then the three home cards return. Display refresh still takes time.

One browser. One service action.

Tap Open table page to redeem the code once. The browser session lasts up to ten minutes and permits one call or bill request; feedback is separate. Reload or expiry requires pressing Show QR again. Camera previews do not create calls.

Loyalty with meaningful verification

Loyalty and referrals remain planned. A verified visit or purchase can qualify for rewards; scans, calls and account login alone must not award points or prove presence.

Keep service simple

Call waiter keeps the local button-to-wristband path. QR activation needs internet. E-paper retains the home cards and advert while electronics sleep; changed content syncs on wake.

> Working prototype, not a qualified commercial deployment. One-use expiry reduces saved-link replay but cannot stop forwarding an unused live code. Validate radio coverage, refresh quality, power and venue operation before rollout. Printed legacy links do not provide dynamic-QR protection and are disabled for stand-enabled tables.

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GUEST EXPERIENCE / PRODUCT ROADMAP

Discover. Enjoy. Return.

Service stays simple. Optional browser features help guests discover the restaurant and build a useful relationship.

Call, request the bill and share feedback · Service available
Press Show QR on a configured stand, scan and open the restaurant page for service and private feedback. The prototype uses single-use QR access with a ten-minute session.

Discover offers and favourite dishes · Prototype available
Managers publish menus, special offers, food images and discounts for the customer page. Popular-dish ratings remain planned.

Earn loyalty points · Planned
Join a restaurant’s optional loyalty programme and earn points for qualifying, verified visits or orders. Clear rules explain eligibility and when points become available.

Invite someone and earn a referral bonus · Planned
Share a restaurant invitation. A qualifying, verified order by the invited guest can unlock the stated referral bonus. An invite click, scan or duplicate order alone never earns points.

> Product roadmap: loyalty, referrals, ratings, reward claims and personal visit history remain planned. Current private feedback and service requests remain available. Rewards require a qualifying verified event; a scan, call, positive rating or invite click is not enough.

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GUEST EXPERIENCE / PRODUCT ROADMAP

Feedback, rewards and memories.

Customer accounts are optional and separate from permission to call a table.

Give feedback and ratings · Private feedback available · Ratings planned
Share a private service comment today. Planned dish and visit ratings will help guests choose, with verification, moderation and no points tied to a positive rating.

Claim a reward · Planned
See your points balance, eligible rewards, expiry and redemption history. A confirmed claim uses points once and gives the restaurant a clear record to honour.

Keep your restaurant visit history · Planned
An optional browser account can keep your verified visits, favourite dishes and reward history. Basic service remains available without joining loyalty.

A welcoming browser experience · Planned enhancements
No customer app to install. Clear language choices, readable menus and accessible controls will help guests of different ages and preferences; the physical call control remains a phone-free option.

> Product roadmap: loyalty, referrals, ratings, reward claims and personal visit history remain planned. Current private feedback and service requests remain available. Rewards require a qualifying verified event; a scan, call, positive rating or invite click is not enough.

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MANAGER OPERATIONS / WEBSITE 0.4.30

Staff sign-in and sign-out logs.

Open Manager → Team → Sign-in and sign-out history. Choose 7, 30 or 90 days and refresh or export the displayed records.

What gets recorded

A confirmed wristband shift start records sign-in; a confirmed end records sign-out. The log preserves staff and wristband names, elapsed time and forced-end reasons.

What does not end a shift

Logging out of a phone or losing Wi-Fi does not end a wristband shift. A shift stays open until its end is confirmed. Breaks are not deducted from elapsed shift time.

Tracking begins with this release

An already-active shift has an unknown start time. Older attendance is not reconstructed. Use Load older logs before exporting more records.

Start with a manageable pilot

Choose a few tables, connect wristbands to saved Wi-Fi, train the team and measure service reliability before expanding. Service does not require a POS integration.

> Times use the restaurant timezone. Staff history is available only to the restaurant owner and authorized managers. Device polling and battery behavior are unchanged.

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COMBINED TABLE STAND / FINISH CONCEPTS

One device. A finish for your space.

Three luxury enclosure finishes show the same three-card Adura Kitchen interface: restaurant messages, fixed table information and an illustrative advert.



Matte black

Satin black housing with restrained gunmetal trim and a lime service button.



Pearl white

Warm pearl-white housing with refined champagne-gold trim.



Champagne gold

Brushed champagne-gold housing with subtle bronze detailing.

> Illustrative designs, not available production hardware. The last message remains visible while electronics sleep; new manager messages require waking, connecting and refreshing. Loyalty and promotional features remain planned, not live transactions.

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BUSINESS MODEL / AD NETWORK IN DEVELOPMENT

Service subscriptions. Network advertising.

Hentro’s planned business model combines restaurant subscriptions with advertising managed centrally by Hentro across table displays and customer browser pages.



Combined stand and Wi-Fi wristband concept. Example advertising; no brand partnership is claimed.

Restaurant subscriptions

Restaurants pay a recurring subscription for connected service, shared wristbands, manager visibility, reporting and ongoing platform support. Hardware and onboarding terms are priced separately once validated.

Hentro-managed advertising

Advertisers buy placements arranged by Hentro on e-paper table displays and customer pages. Restaurants do not need to upload each campaign. Prices, delivery measures and advertiser demand still require validation.

One campaign. Automatic distribution.

Hentro will schedule and distribute campaigns across restaurants using the platform. Customer pages fetch eligible campaigns online; table stands download updates during scheduled wakes or interactions and retain the advert while asleep.

Automatic delivery does not require continuous Wi-Fi. A sleeping stand keeps its last image; new content appears after it wakes, connects and refreshes. Physical service calls take priority.

> Subscription and advertising revenue are proposed business streams. Prototype campaign publishing is available; pricing, advertiser demand and delivery measurement require validation. No commercial partnership or returns are claimed.

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THREE-CARD DISPLAY / IN DEVELOPMENT

Three cards. One clear experience.

The proposed Adura Kitchen interface separates restaurant messages and request status, a fixed table identity with Show QR instructions, and a clearly labelled Hentro-managed advert. Enclosure colours vary; this e-paper display remains black and white.



Pingo Doce · Burgundy



Continente · Matte black



EDP · Pearl white



NOS · Deep navy

Illustrative enclosure/advertising designs, not advertiser partnerships or production hardware. The combined dynamic-QR stand is a working prototype; loyalty and illustrated on-screen acceptance messages require further development.

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THREE-CARD DISPLAY / IN DEVELOPMENT

A finish for every setting.

Seven illustrative advertiser and enclosure combinations share the same three-card interface.



Super Bock · Bronze



idealista · Forest green



Hentro · Champagne gold

> Illustrative enclosure/advertising designs, not advertiser partnerships or production hardware. The combined dynamic-QR stand is a working prototype; loyalty and illustrated on-screen acceptance messages require further development.

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THREE-CARD DISPLAY / IN DEVELOPMENT

A request you can follow.

The top card shows confirmed delivery, then waiting if no waiter has accepted after 15 seconds. Acceptance appears only after a real waiter response. Restore the daily message 30 seconds after acceptance; dismissing the message does not cancel a request. The middle table card and bottom advert remain visible.



Request sent



Waiting for acceptance



Accepted · on the way

Illustrative enclosure/advertising designs, not advertiser partnerships or production hardware. The combined dynamic-QR stand is a working prototype; loyalty and illustrated on-screen acceptance messages require further development.