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ETH Ticker

Changelog — every release, from the first build to v9.5.0

Firmware for the Waveshare ESP32-S3-Touch-AMOLED-1.75C: a live ETH/USDT ticker with candles, a 24-hour floor and ceiling estimate, order-book walls, alerts with sound, crypto news, a clock and Wi-Fi management, all computed on the device. Newest releases first.

Version 9

v9.5.0

October 24, 2026

ADDED Alerts light up a dark screen: any open panel closes at once, the alert shows for 10 seconds with its sound, and the screen goes dark again unless it was touched or a button was pressed meanwhile. A second alert keeps it lit for another 10 seconds. One setting in config.h turns this off (sound only).

v9.4.4

October 24, 2026

FIXED In v9.4.3 every panel (clock, settings, Wi-Fi, news) showed up empty: the new content container was sized before the panel's own size was known and clipped everything inside it. It now always covers the whole panel. Every screen was checked against the previous release pixel by pixel, and the tests now also make sure the open panels actually show their content.

v9.4.3

October 24, 2026

FIXED After the clock panel was closed from the settings and opened again, the clock and the settings showed on top of each other. While a panel slides, its content is now hidden and shown as a whole, so the screen the panel switched to in the meantime is the only one that comes back (news panel too).

FIXED Wi-Fi rows that changed while the list was scrolling could appear over the scrolling image; changes now apply the moment the list stops.

v9.4.2

October 24, 2026

FIXED After a start or a reconnect the chart sometimes showed only the live candle for up to five minutes. All downloads share one connection, and the candle history gave up waiting sooner than the walls, time zone, analytics and news, so it lost whenever one of them got there first. The history now goes first after the Wi-Fi comes up (the others wait for it, at most 30 s), waits up to 10 s for the connection, and if it still fails it is tried again after 15 s, 30 s and then every minute.

v9.4.0

October 24, 2026

ADDED Custom alert sounds: mp3 files in the sketch's data folder replace the built-in sounds, either one pair for every rise and fall or a separate sound per alert type (spikes, steady trend, big moves, new 24-hour high / low, wall breaks). They are uploaded with the LittleFS upload plugin, without uploading the firmware again, and decoded on the device at start.

ADDED The alert engine now reports which rule fired, so each type can have a sound of its own. The rules themselves did not change.

v9.3.1

October 24, 2026

IMPROVED The end of every panel slide. The switch from the sliding image to the live panel used to happen on the last frame of the motion, causing a small hitch and a half-drawn frame. It now happens 0.1 s after the panel stops, on a still picture, where it is invisible (the two pictures are identical).

v9.3.0

October 24, 2026

IMPROVED Wi-Fi list scrolling. Each scroll frame redrew the whole screen because of the scroll indicator; now only its narrow band is redrawn, and while the list moves a single image of the rows moves instead of twenty rows of text and icons.

ADDED A display bus speed setting in config.h: 40 MHz by default, 80 MHz optional for even smoother animations on boards that support it.

v9.2.0

October 23, 2026

ADDED Volume confirmation for breakouts. The last hour's volume and the share of market buys decide how long a wall break must hold: heavy volume or strong takers confirm it at once, thin volume needs a clearer move. A new 24-hour high or low on thin volume must clear the old one by 0.15 %. No alert is dropped, only confirmed sooner or later.

ADDED A 24-hour VWAP signal, kept out of the forecast for now: the device scores it against real prices every day and logs how often it called the direction right, next to the forecast's own score.

FIXED A slow break of an old 24-hour peak was never announced: a creep just above the old high restarted its 30-minute clock.

ADDED Log line with the last hour's trading flow.

v9.1.2

October 23, 2026

CHANGED Author line in every source file and in the start-up log; the description of the controls brought up to date.

CHANGED The default configuration ships without any Wi-Fi network; the package now includes lv_conf.h.

v9.1.1

October 23, 2026

FIXED Boxes instead of characters in news titles (inside numbers such as 61,800 or $5.7) and in Wi-Fi network names.

ADDED Network names show accented Latin letters, typographic quotes and dashes (an iPhone hotspot is named “Name’s iPhone”) and Cyrillic; anything else (emoji, other scripts) appears as “?” instead of a box.

v9.1.0

October 22, 2026

CHANGED Alert thresholds are in percent of the price, so the sensitivity stays the same whatever ETH costs.

v9.0.1

October 22, 2026

FIXED The charging animation did not appear when the cable was plugged in with the screen off: a key event reported by the power chip at that moment switched the screen straight off again. Cable detection is also faster (every 0.2 s).

v9.0.0

October 22, 2026

ADDED Steady-trend alert: a smooth, strong move over 15 minutes.

IMPROVED Spoof filter for walls: a new wall is shown only after three book reads in a row.

IMPROVED Keyboard keys accept touches in the gaps next to them.

FIXED A round of code review: static analysis and a strict-warning build of every module, small fixes.

Version 8

v8.7.0

October 22, 2026

IMPROVED Video: all frames of the clip at 25 fps (was 12.5), better quality, each frame shown whole instead of being built up in blocks, the next frame decoded while the last one is sent.

IMPROVED Wi-Fi: the refresh icon turns grey while scanning; a scan request is retried when the radio is busy; a network picked on the screen gets 12 s for the access point to answer and a second try on any channel (phone hotspots answer slowly and may change channel).

CHANGED The 513 logo on the clock screen moved down.

v8.6.3

October 22, 2026

IMPROVED Panels slide as pre-rendered images, and the ticker underneath is frozen into one image during slides and the opening curtains: each frame is little more than two image copies.

IMPROVED A panel standing open is drawn as a full rectangle, so nothing behind it is redrawn; touch bus at 400 kHz.

ADDED Transfer time in the performance log.

v8.6.2

October 22, 2026

IMPROVED Rendering in 64-line strips so that whatever a panel covers is skipped; the loading curtains redraw only the opening strips and the moving content instead of the whole screen.

v8.6.1

October 22, 2026

IMPROVED Double-buffered rendering in PSRAM, with frames sent to the display from the other core while the next one is drawn; one lock guards the display bus; about 30 KB of internal RAM freed.

IMPROVED The alert engine runs only on a new price instead of on every loop pass.

ADDED A performance log line (frames per second, time per frame).

v8.6.0

October 22, 2026

CHANGED New news screen: light, with a round top, sliding up over the ticker, which now stays still.

ADDED Charging screen: when the cable goes in, a glow with the ETH logo fades in and out over three seconds, even with the screen off.

v8.5.0

October 22, 2026

CHANGED New clock, settings, Wi-Fi list and password screens on a light, round panel; the Wi-Fi switch was removed (Wi-Fi stays on and reconnects by itself).

ADDED Saved networks screen: the networks in memory, the one in use marked, a button to forget each.

ADDED Refresh button on the Wi-Fi list.

v8.4.4

October 22, 2026

CHANGED The day's change shows Binance's own rolling 24-hour change, the same number as next to the price in the Binance app.

v8.4.3

October 22, 2026

FIXED A diagnostic log line was printed on every loop pass instead of every 30 s.

v8.4.2

October 22, 2026

CHANGED The day's change with two decimals; a diagnostic log line comparing the day's change from different starting points.

v8.4.1

October 22, 2026

CHANGED Near 0 % the day's glow changes colour only after the new sign has held for 10 s, so it does not flicker.

v8.4.0

October 22, 2026

ADDED The day's change in percent on the main screen and a green or red glow behind the news tab that fades between colours when the day turns.

CHANGED Alerts redesigned with emoji and price pills; the walls screen uses emoji too; new news tab colours.

IMPROVED A wall break counts only once the price holds beyond it; a wick straight back is ignored.

ADDED Alerts for a new 24-hour high or low.

v8.3.0

October 22, 2026

FIXED Phantom touch releases from the touch controller: repeated keys, sliders jumping twice, list taps while scrolling. One touch is now one action.

IMPROVED Wi-Fi reliability: patience while the access point hands out an address, a password counted as wrong only after two refusals, a real-internet check (hotel and café login pages are detected), networks saved only after it passes, a radio restart after repeated failures.

CHANGED A "connecting" pill with a countdown replaces the connect and refresh buttons.

v8.2.2

October 21, 2026

FIXED Possible brown-out while connecting on bright screens with a weak battery: the screen dims to 50 % during a connection attempt; a picked network waits for a running scan instead of cutting it.

v8.2.1

October 21, 2026

IMPROVED Swipe thresholds: swipes up complete after 10 % of the screen, swipes down after 20 %.

v8.2.0

October 21, 2026

IMPROVED Alert repeat rules: the same move is never announced twice just because time passed; the same direction again only after a further move or for a new move.

v8.1.1

October 20, 2026

FIXED The Wi-Fi switch can be turned back on by hand at once.

v8.1.0

October 20, 2026

ADDED Wi-Fi networks screen with an on-screen keyboard; up to 10 saved networks, most recent first; automatic connection to the strongest saved network, straight to its channel, with retries.

v8.0.0

October 20, 2026

ADDED Clock and settings panel: time, date, month calendar, battery, current network; brightness and volume settings kept in memory.

Version 7

v7.4.3

October 20, 2026

IMPROVED Walls screen: candles are never squeezed and the walls the price reached sit at their true height.

CHANGED Alert thresholds and repeat rules reworked.

v7.4.2

October 20, 2026

IMPROVED Walls screen: the band around the price gets most of the height.

v7.4.1

October 20, 2026

IMPROVED Walls screen: one linear scale, walls at their true heights.

v7.4.0

October 20, 2026

CHANGED Walls screen redesigned: six fixed rows for the walls, labels that never collide.

v7.3.9

October 20, 2026

FIXED Pending forecast checks are kept in memory across restarts, so a restart no longer throws away a day of self-calibration.

v7.3.8

October 20, 2026

IMPROVED The loading screen waits only for what the main screen needs; news and the time zone load right after it opens.

v7.3.7

October 20, 2026

FIXED After a stream drop the price could wait behind a long download; the price fallback now gets priority and recovers within seconds.

v7.3.6

October 20, 2026

FIXED Analytics: the long/short ratio is read relative to its 2-day average; RSI no longer overreacts in strong trends.

IMPROVED Walls no longer flicker: hysteresis and a short confirmation before a new wall is shown.

v7.3.5

October 20, 2026

ADDED Memory guard: everything that accumulates has a fixed size; heavy downloads pause if memory runs short, and as a last resort the device restarts cleanly while idle.

v7.3.4

October 20, 2026

IMPROVED Alerts with the screen off or during the video play the sound only.

v7.3.3

October 19, 2026

FIXED A single phantom touch sample could open the news.

v7.3.2

October 19, 2026

IMPROVED News opens only with a swipe from the bottom; touch-controller glitches are filtered; news closes by itself after 30 s; larger news text.

v7.3.1

October 19, 2026

FIXED Start-up resets on a weak power supply: the radio starts 1.5 s after the first frame, the loading screen runs dimmer and is skipped right after a brown-out.

v7.3

October 19, 2026

ADDED Loading screen with real progress and curtains that open over the live ticker.

v7.2.3

October 19, 2026

IMPROVED Walls averaged over refreshes on a fixed price grid, with hysteresis.

v7.2.2

October 19, 2026

FIXED The market-maker layer around the spread is no longer shown as a wall.

CHANGED News from five outlets; stories carried by several outlets rank higher.

v7.2.1

October 19, 2026

FIXED Walls are judged against their own neighbourhood instead of the whole book.

v7.2

October 19, 2026

ADDED Order-book walls from Binance spot and futures, shown while BOOT is held.

ADDED Alerts with sound for sharp moves and wall breaks.

v7.1

October 19, 2026

ADDED News: the 10 most important crypto stories of the last 24 hours, opened with a swipe.

v7.0

October 19, 2026

CHANGED Main screen redesigned: battery arc, chart with a price column and a live price tag.

ADDED A clear indicator when fresh prices stop arriving.

The beginning

v6.0

October 18, 2026

ADDED Battery arc with a charging bolt, Wi-Fi status, local clock with the time zone found automatically.

v5.0

October 17, 2026

ADDED First complete release: the live ETH/USDT price over the Binance stream, hourly and daily candles, a 24-hour floor and ceiling estimate computed on the device from nine market data sources, a video on double-pressing BOOT, screen on / off and power off on the PWR key, a serial log.

v4.5 and earlier

October 2026

ADDED The firmware written from scratch for the board: display, touch and power-management bring-up, the user interface, the video player, the Binance price stream and the analytics engine, with the start-up crashes found and fixed along the way.