

Updating Meshtastic Firmware

Why Update?

Meshtastic releases updates frequently, delivering bug fixes, new features, and performance improvements. For best compatibility with other nodes on the mesh, aim to stay within 1 - 2 major versions of the current release. Running a very old firmware version may cause incompatibility with nodes that have updated.

Checking Your Current Version

Open the [Meshtastic app](#) and navigate to the **Node Info** panel for your node. The firmware version string is displayed there (e.g., `2.5.12.abcdef`).

Finding the Current Release

Meshtastic releases firmware regularly on GitHub at github.com/meshtastic/firmware/releases.

Each release includes a changelog. The web flasher at flasher.meshtastic.org always offers the latest stable release automatically - you do not need to find the binary yourself when using it.

Update Methods

1. Web Flasher (Easiest)

1. Open flasher.meshtastic.org in Chrome or Microsoft Edge (WebSerial is required; Firefox does not support it).
2. Connect your device to your computer via USB.
3. Select your board type from the dropdown.
4. Click **Flash**. The flasher downloads and writes the latest stable release.

Configuration is preserved in most updates. Meshtastic stores your settings in a separate NVS (Non-Volatile Storage) partition on the device, so a normal firmware flash does not erase them. However, major version upgrades occasionally reset configuration - see the section below.

2. Meshtastic App OTA (Over-the-Air)

Some hardware supports over-the-air firmware update via Bluetooth, initiated directly from the Meshtastic iOS or Android app:

- Open the app and connect to your node.
- Go to node settings and look for **Firmware Update**.
- If your board supports OTA, the option will be available. Boards based on nRF52840 (e.g., RAK4631, T-Echo) generally support OTA; many ESP32 boards do not.

3. Arduino / PlatformIO (Developers)

Developers who want to build from source or apply custom patches can use PlatformIO with the Meshtastic firmware repository. This method requires a development environment and is not needed for routine updates.

Configuration Preservation

Most firmware updates preserve your configuration. However, **major version upgrades** (e.g., 2.x → 3.x) occasionally include breaking changes that reset config. Before updating any critical infrastructure node, record:

- Channel name and PSK (or export the QR code)
- Modem preset (e.g., LONG_FAST, MEDIUM_SLOW)
- Device role (Router, Repeater, Client, etc.)
- Any custom position or telemetry settings

Check the release notes for your target version before updating.

Updating a Remote Node

If your node has OTA update capability and Bluetooth is accessible, you can update it remotely via the Meshtastic app without physical access. For headless nodes deployed without Bluetooth range, or nodes that do not support OTA, physical access and USB are required.

Rolling Back

If a firmware update causes problems, you can flash the previous version using the web flasher - select the exact version from the version dropdown instead of accepting the default latest. Keep a note of the version that was working on your infrastructure nodes so you can return to it quickly if needed.

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