

# ? Start Here — Hardware Guide

This book helps you choose the right hardware for your specific use case - whether you're buying your first node, kitting out a field team, or specifying infrastructure for a community network.

## ? Just Want a Quick Answer?

- **First node, just want something to try:** [Best Hardware for Beginners](#)
- **Portable / hiking / field use:** [Best Hardware for Portable and Handheld Use](#)
- **Fixed outdoor repeater:** [Best Hardware for Fixed Repeaters](#)
- **Room server / gateway:** [Best Hardware for Room Servers and Gateways](#)
- **Side-by-side comparison table:** [Popular Board Comparison Table](#)

## ? What's In This Book

### Platform Choice: ESP32 vs nRF52840

- [ESP32 vs nRF52840: Which Platform?](#) - Power, performance, and compatibility differences
- [nRF52840 vs ESP32: Architecture Comparison for Mesh Operators](#)

### Radio Chip Selection

- [LoRa Radio Chips Explained: SX1262 vs SX1276 vs LR1110](#)
- [SX1262 vs SX1276: Why It Matters](#)

### Device Categories

- [Budget Devices](#) - Under \$30
- [Mid-Range Devices](#) - \$30 - 80
- [Premium & Feature-Rich Devices](#)
- [T-Deck as a Standalone Communicator](#)
- [T114 and T3-S3: New Hardware for 2025 - 2026](#)

# Infrastructure Hardware

- [Fixed Infrastructure Node Hardware Selection](#)
- [Prebuilt Solar Repeater Units](#)
- [Base Station Nodes](#)

# Accessories

- [GPS Modules for LoRa Nodes](#)
- [Displays for LoRa Nodes](#)
- [PCB Trace vs External Antenna](#)

# Software / Apps

- [MeshCore App \(Official\)](#)
- [Meshtastic App](#)
- [MeshOS \(Standalone Device Firmware\)](#)

# ?? Related Books

- [DIY Build Guides](#) - Device-specific setup and enclosure builds
- [Antennas & RF](#) - Choosing and installing antennas
- [Solar & Power Systems](#) - Powering your nodes

Revision #2

Created 2026-05-03 11:01:17 UTC by Mesh America Admin

Updated 2026-05-03 13:00:17 UTC by Mesh America Admin