

☐☐ Start Here — DIY Build Guides

This book covers hands-on builds: flashing firmware, assembling nodes, weatherproofing outdoor deployments, and building complete solar repeater systems from parts.

☐☐ Most Popular Builds

- [Budget Solar Repeater Build \(~\\$100\)](#) - The most-read page in this book (BOM totals about \$108; a stripped-down, bare-bones version omitting the fiberglass antenna can come in near \$80)
- [RAK4631 WisBlock Build Guide](#)
- [Vehicle-Mounted Meshtastic Node Build](#)
- [Portable Go-Kit: Field-Deployable Mesh Node](#)

☐☐ What's In This Book

Getting Started & Overview

- [Parts List & Overview](#)
- [Assembly Guide](#)

Flashing Firmware

- [Flashing Meshtastic Firmware](#)
- [Flashing MeshCore Firmware](#)
- [Flashing Troubleshooting](#)

Device-Specific Setup Guides

- [Heltec V3 Setup Guide](#)
- [Heltec V4 Setup Guide](#)
- [LilyGo T-Echo Setup Guide](#)
- [LilyGo T-Beam Setup Guide](#)
- [LilyGo T-Deck Setup Guide](#)
- [LilyGo T-Deck Plus Setup Guide](#)
- [Seeed Wio Tracker Setup Guide](#)
- [Station G2 Setup Guide](#)
- [Nano G2 Ultra Setup Guide](#)

Complete Build Walkthroughs

- [Budget Solar Repeater Build \(~\\$100\)](#)
- [High-Power Mountain Repeater Build \(~\\$200\)](#)
- [Rooftop Gateway Build \(Pi + LoRa\)](#)
- [Heltec LoRa 32 Build Guide](#)
- [RAK4631 WisBlock Build Guide](#)
- [T-Beam Build Guide \(TTGO/LilyGo\)](#)
- [Vehicle-Mounted Meshtastic Node Build](#)
- [Portable Go-Kit: Field-Deployable Mesh Node](#)
- [JadeNode Build \(~\\$50\)](#)
- [Raccoon Tree Node Build \(~\\$190\)](#)
- [1-Watt Ikoka Box Build](#)
- [Budget Solar Repeater Build](#)

Enclosures and Weatherproofing

- [Choosing an Outdoor Enclosure](#)
- [Choosing an Enclosure](#)
- [Weatherproofing Enclosures for Outdoor Nodes](#)
- [Weatherproofing Tips](#)

- [Weatherproofing Your Build](#)
- [Practical Sealing Techniques](#)
- [Cable Glands and Penetrations](#)
- [Condensation Management](#)
- [Thermal Management for Outdoor Enclosures](#)
- [Cold Weather / Winter Operation](#)
- [Mounting Outdoor Nodes - Poles, Walls, and Towers](#)
- [3D Printing Enclosures for Meshtastic Nodes](#)

DIY Antennas

- [Building a 915 MHz Yagi Antenna](#) (in Antennas & RF book)
- [Building a Collinear Vertical Antenna](#) (in Antennas & RF book)

➔ Related Books

- [Hardware Guide](#) - What to buy before you build
- [Solar & Power Systems](#) - Power system design and wiring
- [Antennas & RF](#) - Antenna selection and installation

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