

Option 1: The "Community Standard" (Porksoduh)

This is the most popular frame. It is designed for **16 AWG (1.5mm)** solid wire, which is common in household Romex.

- **File Name:** Moxon 915MHz by Porksoduh
- **Source:** [Thingiverse - 3140203](#)
- **Why it's good:** It has a built-in channel for the coax to act as a handle and strain relief, preventing the solder joints from snapping.

Option 2: The "Meshtastic Optimized" (Unhild)

This is a remix specifically designed for Meshtastic nodes and smaller coax like RG-174.

- **File Name:** Moxon antenna 868MHz / 915MHz Meshtastic
- **Source:** [Printables - 1378116](#)
- **Why it's good:** It is very compact and includes a mount that can be zip-tied directly to a pole or enclosure.

Printing Tips for Antennas

1. **Material:** Use **PETG** if the antenna will be outside. PLA will warp in the sun.
2. **Infill:** Use **15–20%**. You want it light, but rigid enough that the wire doesn't bend the frame.
3. **Wall Thickness:** At least 3 perimeters (walls) to make the wire channels strong.
4. **Tuning (The "Plastic Effect"):** Plastic has a dielectric constant that slightly slows down the radio waves (velocity factor). If you find your SWR is a bit high after assembly, trim **1mm** off the ends of the wire tips (the part facing the gap) to bring the resonance back up to 915 MHz.

Quick Build Checklist

- **Wire:** 14 AWG or 16 AWG solid copper (strip it out of some spare 14/2 house wire).
- **Glue:** A tiny drop of **Super Glue (CA)** or **5-minute epoxy** in the corners will keep the wire from sliding out of the printed channels.
- **Orientation:** Remember to mount it **vertically** (the rectangle "standing up") to match the vertical polarization of most other LoRa nodes.