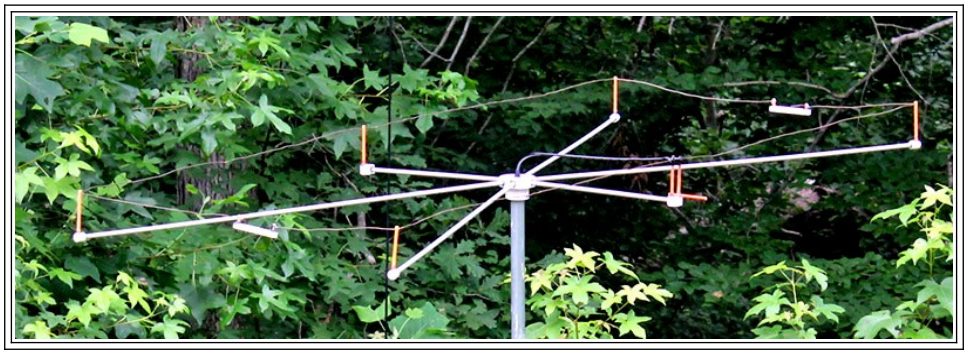
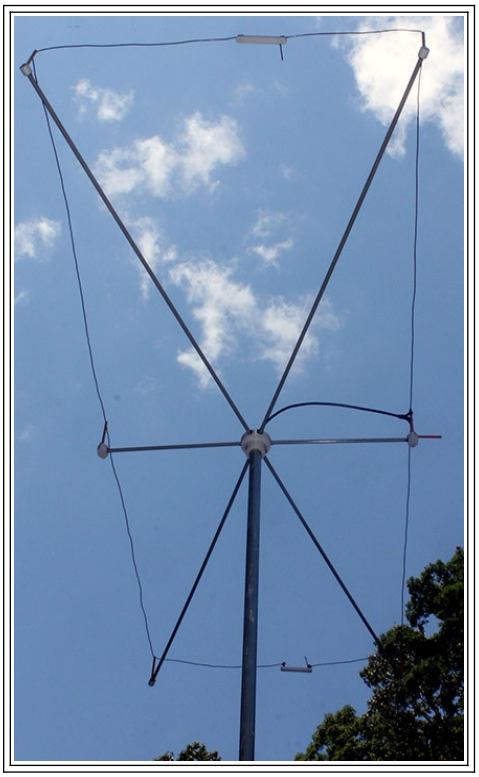
6-meter Moxon Construction Notes





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Introduction

In 2021 I built a 6-meter Moxon antenna with a frame of PVC pipe. A year later, after a couple of high-wind events, the frame broke apart at some of the joints.

Figure 1: Original Moxon broken

In 2022 I rebuilt the Moxon using 3/8" fiberglass electric fence posts in an X-frame, and parts 3D-printed from PETG material. See *Figure 3* for details and dimensions.

This document describes how to build the Moxon with those parts. There are clickable links for easy navigation. Click a Table of Contents entry or page number to go directly to that section. Within the document, click a red phrase or page number to jump to that topic. For example, click Central hub to read about the 3D-printed hub. Use your PDF reader's "return to previous page" control to go back.

General description

This Moxon is a rectangle of bare 12AWG copper wire held in place on an X-frame made of 3/8" fiberglass rods (below). It has a driven element, cut in the center for a coaxial feed line, and a continuous reflector element. The antenna radiates perpendicular to the driven element, i.e., perpendicular to the long side of the rectangle. The elements bend at the four corners of the rectangle, and their ends are separated by about two inches on the ends of the rectangle.

3D-printed components hold the antenna wire on the frame. These components are:

- A central hub (page 6) holds four 3/8" fiberglass spreader rods to form the X-frame, and to attach to the top of a 1" ID steel conduit mast
- Four end caps (page 6) fit on the ends of the 3/8" spreader rods to form the corners of the wire
- A feed point insulator (page 7) holds the ends of the driven element wires to attach the coax feed line
- An identical insulator is used only to support the center of the reflector wire
- Two wire end spacers (page 7) support the ends of the element wires, separated by two or three inches.

Version 2 Parts

In early 2024 I revised the parts to include posts with holes at the top for the antenna wire, instead of holes for fiberglass pegs.

Working with fiberglass is nasty. The posts eliminate cutting 12 ¼" fiberglass standoff pegs, drilling holes in them for the antenna wire, and gluing them to the 3D-printed parts.. *No more fiberglass shards embedded in your fingers!*

As you work your way through the construction, if you have the Version 2 parts, ignore all steps that mention ¼" fiberglass pegs.

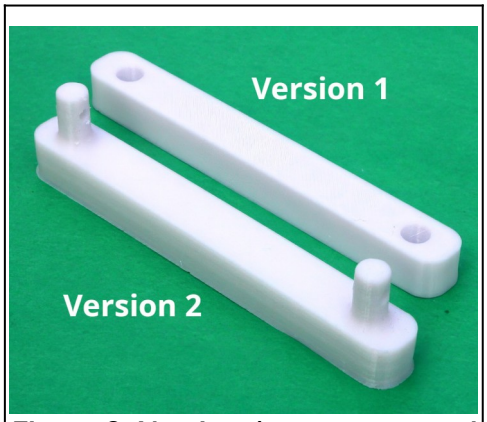


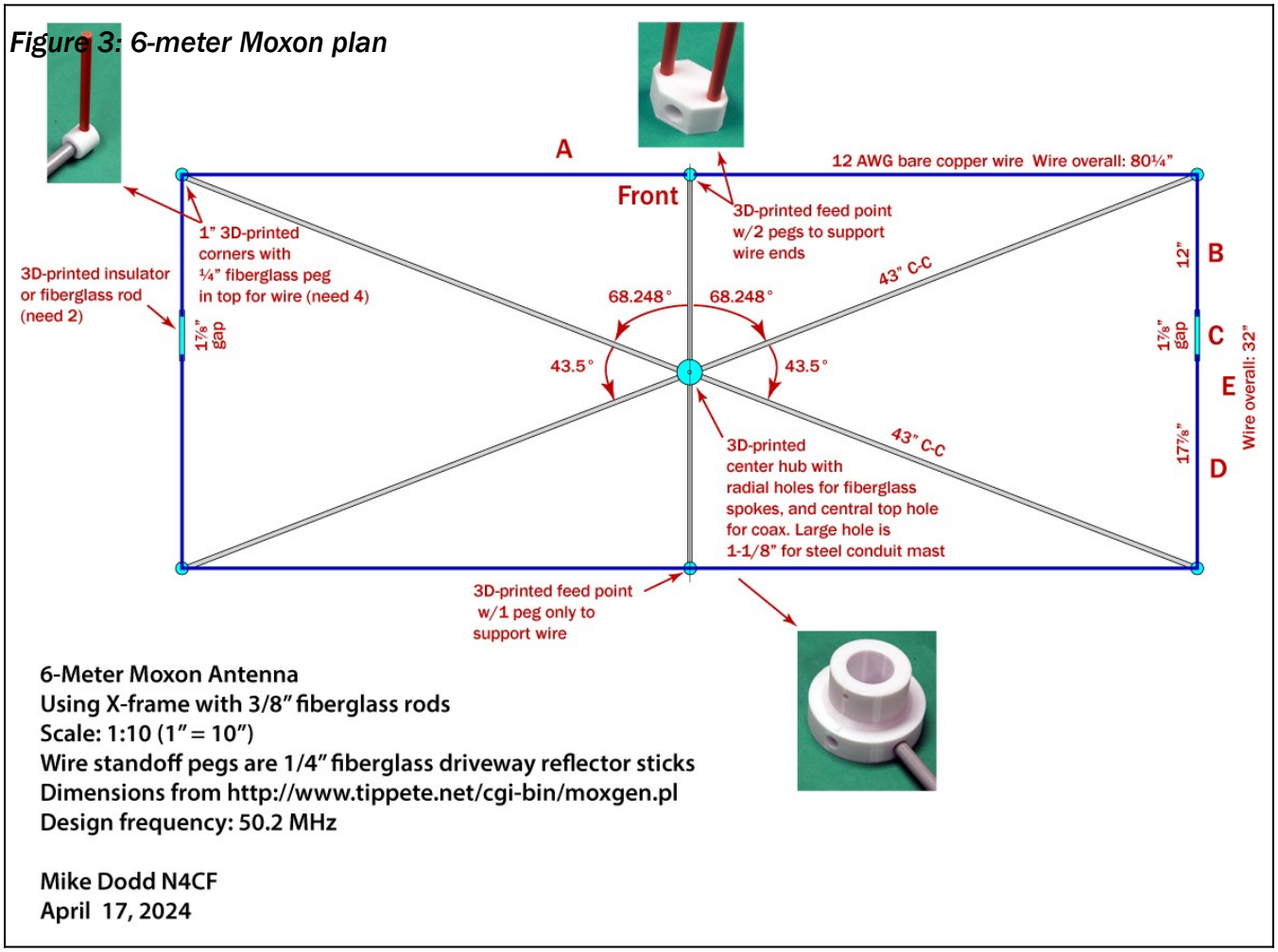
Figure 2: Version 1 part compared to Version 2

It would be nice to abandon Version 1 parts in favor of Version 2, and update these instructions. But I'd need to build another Moxon with V2 parts, and photograph those steps. Maybe someday....

Plan drawing

This is the plan for the Moxon. The separate file, *N4CF 6M Moxon plan v2.pdf.* Is a full-size version that might be easier to read.

Figure 3: 6-meter Moxon plan



Fiberglass spreader rods

The 3/8" fiberglass rods are electric fence posts from Tractor Supply, SKU 360098099. They must be cut to length to achieve the dimensions shown in Figure 3.

Caution: *Cutting fiberglass produces dust and debris that are harmful to lungs and can irritate the skin. Wear appropriate breathing protection and nitrile gloves when cutting fiberglass or handling cut ends.*

3D-printed parts

The central hub, spreader end caps, and other parts are 3D-printed from PETG material. This was chosen for strength and good resistance to UV light.

Gluing to PETG is a challenge. I found two-part epoxy (e.g., JB Weld) works well, although even it can break loose from the PETG with high force.

Central hub

The hub is installed on top of the 1" ID steel conduit mast, and holds four 3/8" fiberglass spreader rods whose ends define the corners of the Moxon.

In addition, two short fiberglass rods project from the front and rear of the hub to hold the feed point insulator and a support for the center of the reflector wire.

The front of the hub is designated by a short raised arrow on the underside near the hole for the feed point insulator support rod.

A small hole in the small portion of the hub is for a stainless steel screw into the mast to hold the antenna in place.

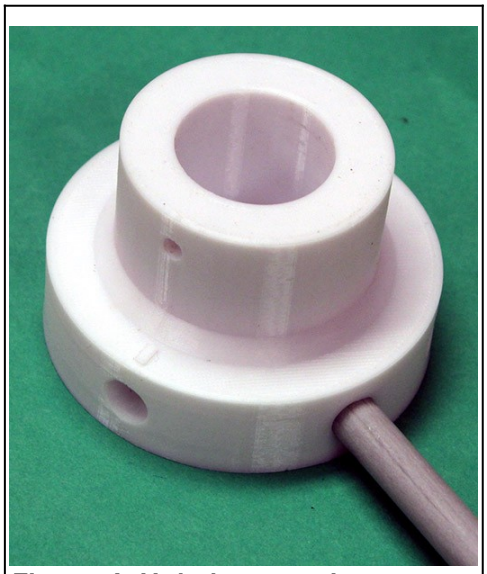


Figure 4: Hub, bottom view

Spreader end caps

Each spreader has a round end cap with a ¼" hole to hold a fiberglass standoff peg made from a driveway reflector stick. The antenna wire passes through a hole in the top of each peg. See page 12 for details about drilling the hole.

Figure 5: Spreader end cap with standoff peg

Feed-point insulator

The feed-point insulator holds two standoff pegs for the ends of the driven element wire. The coax feed line is soldered to these wires.

A hole in one side of the insulator accepts a short 3/8" fiberglass support rod from the central hub.

A second one of these insulators is used to support the center of the reflector wires.

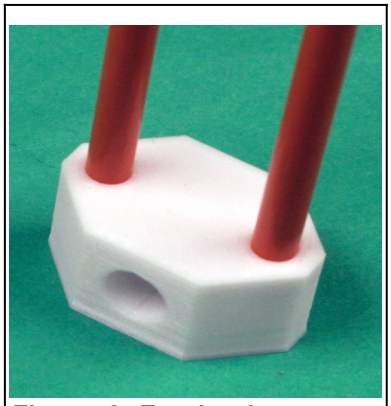


Figure 6: Feed point insulator

Wire end spacer

The ends of the driven element wire and the ends of the reflector wire point toward each other with a gap between at the sides of the antenna. This spacer holds two standoff pegs with holes for the wires.

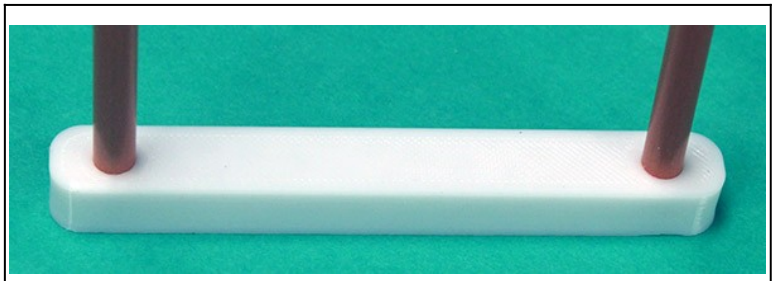


Figure 7: Wire end spacer

There is no support rod from the central hub, so the wires themselves support the spacer. Consequently, make the standoffs only about one inch tall, so the spacer is held close to the wires.

Building the Moxon

Setup

I clamped the central hub to a workbench with a length of wood on top, clamps holding it down on the ends. Then I inserted the 3/8" spreaders to begin measurements and assembly.

Before clamping, look on the underside of the hub's top flange for a small raised straight line. This indicates the front hole. Mark an arrow on the

Figure 8: Clamping the hub to the workbench

hub top, and label it “F” so you have a ready reference during construction. This is visible in the photo.

It is important that the spreaders don’t sag or bend. I laid 2x4s flat on the bench to support them at the correct height with a ½” piece of plywood under the hub, as seen in this photo.

I used blue painter’s tape to secure the spreaders to the 2x4s while measuring and stringing the wire.

Measuring the spreaders

The drawing shows the spreader lengths from the center of the hub to the center of the corner peg that holds the antenna wire. To measure, I cut a 3” length of ¼” fiberglass driveway reflector rod (same as used for the standoff pegs), and drilled a small hole down into one end. I Tilted the drill so the hole was angled and broke out the side of the rod. I inserted #22 bare wire into the hole and out the side, then glued it in place. I bent the wire 90° at the top, and inserted the peg into the ¼” hole in the top of the hub. This became my “0” reference point for all spreader measurements.

This drawing shows a spreader end cap. The green line indicates the center of the ¼” hole for the standoff peg. It is 0.5” from the left face of the cap.

The orange area is the 3/8” hole for the spreader. It is 0.3” deep.

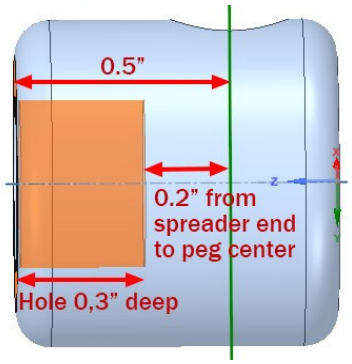


Figure 9: End cap dimensions

Here’s how to measure where to cut a spreader:

1. Insert the peg with the #22 measuring wire into the ¼” hole in the hub top. Straighten the wire to remove bends and kinks. You want it to be as straight as possible without excessive pulling, which could move the hub and the spreaders.
2. Insert the spreaders into the four “corner” holes in the hub (not the front and rear holes).
3. Lay two lengths of 2x4 lumber on the workbench to support the distant ends of pairs of spreaders. Once positioned, clamp the 2x4s to the bench. Later you will tape the spreaders to the 2x4s, so they need to be fixed in place.
4. Carefully measure 43 inches along the wire from the center peg, and mark that point on the wire with a fine-tip permanent marker or a piece of painter’s tape. This mark represents the center of the ¼” hole in the end cap, and the corresponding peg and corner of the antenna wire. Refer to the drawing.

5. Insert spreaders (blunt tend) into the four corner holes in the hub (not the front and rear holes).
6. Stretch the measuring wire along a spreader and draw a temporary pencil line on it under the 43" mark on the wire. *This is a reference line for the next step, **not** where the rod is to be cut.*
7. Refer again to Figure 9. The face of the end cap will be 0.5" from the pencil line when the spreader is inserted into the cap.
8. The bottom of the hole for the spreader is 0.3" deep, or 0.2" from the pencil mark, so make a thin permanent mark 0.2" away from the pencil line you made in step 4. *This is where the spreader should be cut.*

Repeat these steps for the remaining three spreaders. Or you can lay all four spreaders side-by-side with the blunt ends even, and draw the remaining permanent marks without measuring.

Cutting the spreaders

The dimensions of the wire rectangle depend on the length of the spreaders and their angles relative to one another. Consider cutting them slightly long so you can slip on the end caps and make preliminary measurements, then remove them and trim the spreaders if needed. This way you can "sneak up" on the final length to get the rectangle right. If you cut the spreaders too short, you you'll need to buy new ones and start again.

Cut each spreader on the permanent line you marked in step 6 above (or slightly longer, if you choose). I recommend cutting with a chop saw equipped with a power dust collector or with a hand hacksaw. *Wear gloves and a mask to protect your hands and lungs.*

Measurements and adjustments

Next, measure the rectangle to see how close it is. A helper makes this easier. All measurements are taken at the *center* of the ¼" hole in the end cap. You can eyeball where the center is or insert a short peg with a dot marked on the center of one end.

Important! These instructions mention 31 inches frequently. This is dimension E from Wire dimensions on page 14. As stated there, the dimensions are for a design frequency of 50.2 MHz, and will change if you choose a different frequency. *To alert you to this, these instructions add "**(E)**" following 31" to alert you to use your new actual dimension instead of 31".*

Likewise dimension A on page 14. is shown as 80.18", but will change if you choose a different frequency. It is flagged with (A) to alert you.

1. Slip an end cap onto each spreader.

2. Measure the distance between the ¼" holes in two end caps on one end of the rectangle. It should be close to the 31"(E) shown on the drawing. If not, move one or both spreaders until it is 31"(E).
3. Tape these two spreaders to the supporting 2x4 that should be clamped to the workbench.
4. Measure the distance between the ¼" holes in the two end caps on the opposite end of the rectangle. Again, it should be close to 31"(E). If not, move one or both spreaders until it is 31"(E).
5. Tape these two spreaders to their supporting 2x4.
6. At this point both pairs of spreaders should be taped-down, and the distance between the ¼" holes in their caps should be 31"(E).
7. With a helper, measure the distance between the ¼" holes in the caps on the two front spreaders, then measure on the two rear spreaders.
8. Ideally, this should be 80.18"(A) as shown on the drawing. If so, proceed to Assembling the frame. If not, continue with the following steps.

Spreader lengths and angles relative to one another determine the dimensions of the rectangle. Refer to Figure 10. The goal is to make the front and rear dimensions equal, and the two end dimensions equal, as diagram A shows.

Getting this right isn't hard, but it does take patience and a bit of head-scratching to figure out what needs to be changed. Let's assume your end dimensions are the desired 31"(E), but the front and/or side dimensions are off. Here's what can go wrong. Letters in parentheses refer to the diagrams in Figure 10.

- (B) The spreaders are too long, causing the front and rear sides to be too long.
  - ✔ Cut off an equal small amount from each spreader, then begin the measuring process again at step 2 above. By "small," think in terms of cutting off 1/8", then re-measuring. This is tedious and time-consuming, but it's better than cutting the spreaders too short, then having to replace them and start over.

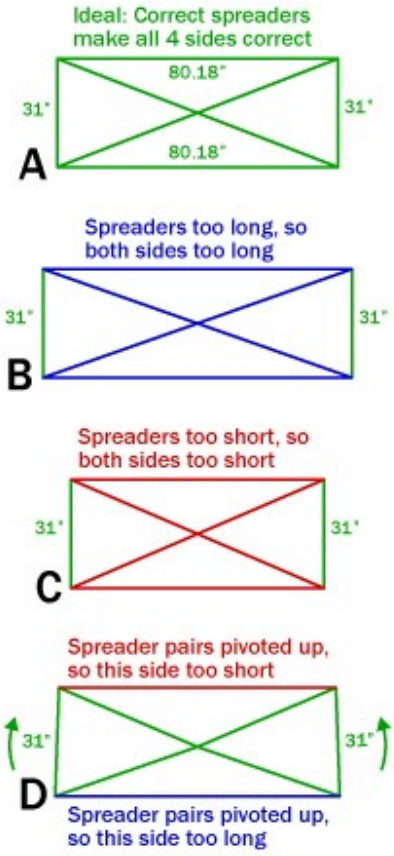


Figure 10: Frame adjustments

- (C) The spreaders are too short, causing the front and rear sides to be too short.
    - ✔ Replace all four spreaders with longer rods, then begin the measuring process again at step 2 above.
- (D) The spreaders are the right length and the 31”(E) end dimension is correct, but one or both pairs are pivoted (green arrows) relative to the hub, causing the front or rear side to be too short, and the opposite side to be too long. (The spreaders can pivot because the hub holes are slightly larger than the fiberglass rods.)
    - ✔ Calculate the difference in length between the long sides. Call this X.
    - ✔ Pivot the pair of spreaders on one end to remove half of X. Pivot the spreaders *toward* the long side to shorten it and lengthen the short side.
    - ✔ Pivot the pair of spreaders on opposite end together in the same direction to remove the remaining half of X.
        - To maintain an end angle that results in the 31”(E) dimension, tape or cable-tie a spacer between the two spreaders so they move as a unit. A ¼” reflector stick (i.e., what you’ll use to cut the standoff pegs) works well.
        - Each time you need to pivot the spreaders, un-tape them from the 2x4, make the adjustment, and tape them down again before making more measurements.

Ultimately you will have a rectangle whose dimensions match the drawing. The next step is to glue the hub, spreaders, and end caps together so you can string the antenna wire.

Assembling the frame

1. With the hub clamped to the workbench, and the spreaders supported on 2x4s and taped in place, draw lines onto the 2x4 on both sides of each spreader where it crosses the 2x4. These reference lines make it easy to reposition the spreaders after removing and replacing them with glue applied.
2. Un-tape the spreaders and remove them from the hub. Apply adhesive inside each spreader hole in the hub (but not the front and rear holes), and on one end of each spreader. I found two-part epoxy to adhere well to the 3D-printed PETG parts. Other adhesives seemed to cure, but didn’t, and remained soft inside the holes.
3. Insert each spreader into its hole, and twist to spread the adhesive. Hold the hub and press the spreader firmly into the hole.
4. With all four spreaders glued, ***walk away!*** Don’t touch anything until the adhesive has had plenty of time to cure (read the adhesive instructions).

5. After the adhesive has cured, grasp a spreader, then try to twist it slightly while gently trying to pull it out of the hole. If it comes loose, that adhesive is not suitable. Clean out the hole and the spreader, then try a different adhesive. When the four spreaders are glued solidly in their holes, continue with the next step.

6. Prepare the pegs for the antenna wire.

   a) Cut seven standoff pegs from ¼" fiberglass driveway reflector sticks. I made mine 3" long, but the length isn't important. You need four pegs for the corners, two for the feed point, and one midway along the reflector wire.

   b) Cut four short pegs for the wire end spacer (Figure 7). These can be about ¾" long to keep the 3D-printed spacer close to the wires.

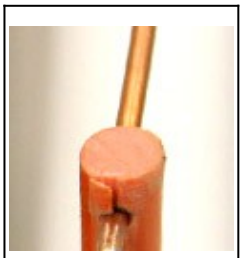


Figure 11: Wire in standoff peg

   c) **Wire holes.** Near one end of every peg, drill a hole large enough to freely pass your antenna wire (Figure 11). No. 12 bare wire is about 0.08" in diameter, so a 3/32" (0.094") hole is sufficient. Drilling a hole into the side of a ¼" fiberglass peg is tricky. Clamp the peg in a vise, then use a center punch or nail to make a dimple. Start with a small drill bit to act as a pilot hole, then drill the final hole. *Wear gloves and a mask to protect against fiberglass dust.*

7. Glue the end caps to the spreaders. You'll need to orient the cap so the hole in the side for the peg is pointing upward. Do this for each of the four end caps:

   a) Remove the cap from the spreader.

   b) Insert a 3' peg (no adhesive!) into the small hole in the side of the cap.

   c) Apply adhesive inside the cap's large hole and to the end of the spreader.

   d) Twist and press the cap firmly onto the spreader.

   e) Rotate the end cap until the peg is pointing up and is perpendicular to the plane of the frame (visually; it doesn't need to be precise).

   f) ***Walk away*** until all adhesive cures.

8. When the adhesive has cured, the next step is to glue a standoff peg into each cap's small hole. This is where the antenna wire makes a 90° turn, so put some thought into how you will bend the wire.

   ✔ I recommend orienting the peg so the wire makes two 45° turns, as seen in Figure 12. This makes it a bit easier to move the wire through a corner hole if adjustments are needed while wiring the antenna.

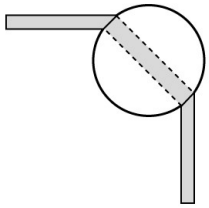


Figure 12: Wire through peg

b) Apply adhesive inside the cap's small hole and to the bottom of the peg.

c) Twist and press the peg firmly onto the hole.

d) Insert a scrap length of antenna wire or a drill bit into the peg's wire hole to indicate orientation. Rotate the peg until the indicator is oriented to make the corner as you have chosen.

e) Following the same process, glue the short ¾" pegs into the two ¼" holes in each wire end spacer. These spacers will be used after stringing the antenna wire.

9. The final step, if you choose to do so, is to apply additional adhesive to each joint for extra strength, as seen here. I'm not sure if this is necessary, but it can't hurt.

10. ***Walk away*** until all adhesive cures.

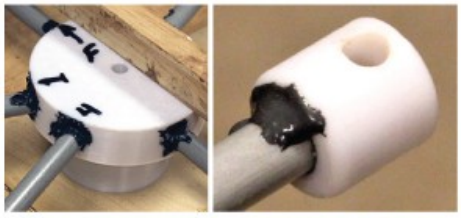


Figure 13: Extra adhesive

At this point, the frame is assembled and ready for the antenna wire.

Adding the feed point and reflector wire support

There are two 3D-printed insulators with top holes for standoff pegs. One of these holds the two driven element wires at the feed point, and the other uses a single peg to support the center of the reflector wire.

Both insulators are glued to short lengths of 3/8" fiberglass rod held in front and rear holes in the hub. Do this:

1. Temporarily run string or small-gauge wire around the frame through the holes in the corner pegs.
2. Measure from the hole in the front of the central hub to the front (driven element) string.
3. Cut a piece of 3/8" fiberglass rod about one 1½" longer than this measurement.
4. Insert the rod into the hub's front hole, and into the 3/8" side hole on a feed point insulator (Figure 6).
5. The center line of the feed point insulator between the two ¼" holes probably will fall beyond the string. Measure this distance, and cut off that amount from the 3/8" fiberglass rod, then measure again.
6. When you have cut the rod correctly to place the insulator directly under the string, mark it and the rod "front."

7. Repeat steps 2-6 for the hub's rear hole and the rear (reflector) string. Mark the insulator and the rod "rear."
8. Glue the front and rear short rods and insulators in place, following the same procedure as for the spreaders and end caps, above. ***Walk away*** until the adhesive cures.
9. When the adhesive has cured, glue standoff pegs into the two ¼" holes in the front (driven element) insulator, with their wire holes aligned along the string.
10. Glue a standoff peg into one ¼" hole in the rear (reflector) insulator, with the wire hole aligned along the string. It doesn't matter which hole; this peg just supports the wire. You can plug the second hole with adhesive or a short peg if you wish.
11. ***Walk away*** until the adhesive cures.

Stringing the antenna wire

Remove the temporary string or small wire you used to measure and install the feed point and reflector wire support, above.

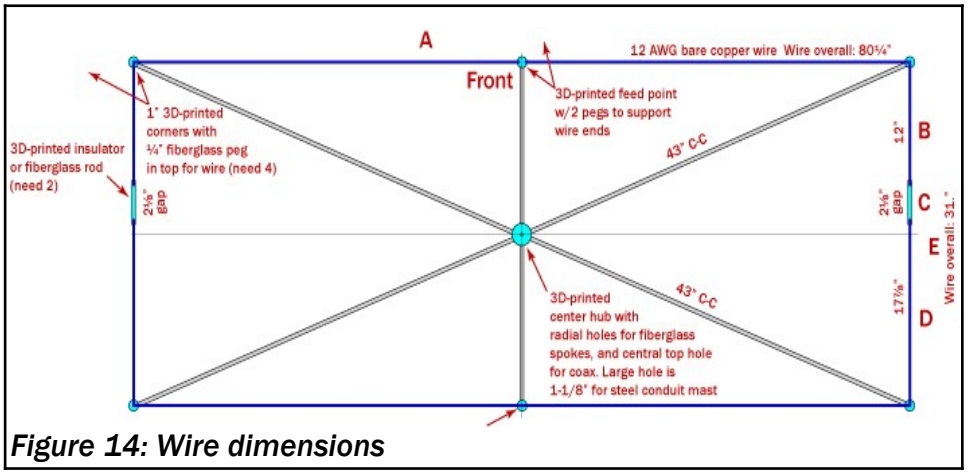


Figure 14: Wire dimensions

Wire dimensions

Figure 14 is a bare-bones Moxon plan that emphasizes the antenna wire sections A (top), B, C, D, and E (right). We will use these labels and dimensions when stringing the wire.

- A is the length of the driven element and reflector wires between the corner pegs.
- B is the length of the driven element wire after making the 90° end turn toward the rear.
- C is the width of the gap between the ends of the driven element and reflector wires.
- D is the length of reflector wire after making the 90° end turn toward the front.
- E is the total distance on the end between the corner pegs.

These dimensions were calculated by the Moxon Calculator at http://www.tippete.net/cgi-bin/moxgen.pl for a design frequency of 50.2 MHz, and a wire diameter of 0.08" (#12 copper).

Important! If you want a different frequency, use the Moxon Calculator to get new dimensions, and use those instead of those listed above.

For the following steps, keep the central hub clamped to the workbench, and the spreaders taped to the clamped-down 2x4s.

You will string a length of antenna wire through holes in a corner peg, one or two pegs on a feed point insulator, and finally through a second corner peg

- At the first corner peg, you'll need to pull the wire until a specified length remains on the "end" (vs. "front" or "rear") side of the peg.
- At each corner peg, you'll need to bend the wire 90° (or a 45° bend on each side of the peg) for the next leg.
- At the second corner peg, you'll need to verify that a certain length of wire remains on the "end" side of the peg, and adjust the wire if not.
- After the wire is strung though two corner posts, you'll need to remove bends and kinks in the long section so the wire runs straight, and you can accurately measure its length between the corners.
- Adjustments will require un-bending the wire at a peg, sliding it through a hole, then re-bending it to the correct angle.
- You'll need to be careful not to bend the spreaders while straightening the wire and adjusting it. Bent spreaders will change the antenna's dimensions.

Here are the steps to string the wire:

Driven element (front)

a) Start at the upper-left corner peg in Figure 14. Feed a length of wire at least 108"(A,B) long through "end" side of the hole in that peg. Lengths are:
   - A = 80"
   - 2 x B = 24"
   - Extra = 4" (2" on each end)
   - Total = 108"

b) Pull the wire through the peg to leave about 14" extending on the "end" side of the peg (B length + 2" extra).

c) Bend the short portion of the wire so it is *perpendicular* to the front of the frame, pointing toward the lower-left peg in Figure 14.

d) Bend the long portion of the wire so it is *parallel* to the front of the frame, pointing toward the upper-right peg.

e) Feed the wire through both pegs in the feed point insulator on the front of the hub.

f) Feed the wire through the "front" side of the hole in the upper-right peg.

g) Remove bends and kinks, then pull the wire relatively tight without warping the spreaders. Bend the remaining wire so it is *perpendicular* to the front of the frame, pointing toward the lower-right corner peg.

h) Adjust the wire through the peg holes so the wire extending on both ends is approximately equal. You will need to un-bend the wire to pull it through the pegs.

Reflector (rear):

i) Again start at the left end of Figure 14. Feed a length of wire at least 118"(A,D) long through the lower-left corner peg, through the single reflector insulator peg, and through the lower-right corner peg. Lengths are:

- A = 80"
- 2 x D = 34"
- Extra = 4" (2" on each end)
- Total = 118"

j) Pull the wire through the peg to leave about 19" extending on the "end" side of the peg (D length + 2" extra).

k) Bend the short portion of the wire so it is *perpendicular* to the front of the frame, pointing toward the upper-right peg in Figure 14.

l) Bend the long portion of the wire so it is *parallel* to the front of the frame, pointing toward the upper-right peg.

m) Feed the wire through the single peg in the support insulator on the rear of the hub.

n) Feed the wire through the "rear" side of the hole in the lower-right peg.

o) Remove bends and kinks, then pull the wire relatively tight without warping the spreaders. Bend the remaining wire so it is *perpendicular* to the front of the frame, pointing toward the upper-right corner peg.

p) Adjust the wire through the peg holes so the wire extending on both ends is approximately equal. You will need to un-bend the wire to move it through the pegs.

Final measurements and adjustments

With both wires strung, it's time to measure to see if the front and rear elements are the correct length. If not, the wire and spreaders must be adjusted. Follow the same procedure you

used in Measurements and adjustments. This should be simpler because the spreaders already are the correct length, and probably taped/clamped in the correct positions. If a dimension is wrong, it's probably because wire tension is warping one or more spreaders.

But each adjustment requires more effort and care. Unbend the wire, make the adjustment, and bend the wire again. Each bending operation weakens the wire, so try to get it right with few adjustments.

End wire gaps

The free wire ends at each end must be aligned and separated, then fixed in place. The 3D-printed wire end spacer does this. Each spacer should have four short (¾") pegs with a hole near one end glued in its ¼" holes, per the instructions on page 12. Wire dimensions B, C, D, and E referenced below come from page 14. Follow these steps for each end of the Moxon:

1. Feed the ends of both end wires through the holes in the short pegs on a wire end spacer.
2. Lift the spacer until the wires are horizontal and on the same plane as the front and rear wires.
3. Tape or cable-tie the wires to their short pegs to hold them for the following steps.
4. Measure between the corner pegs to confirm dimension E is still 31"(E).
5. Dimensions B (11.98") and D (16.9") are the end wire lengths from the front and rear corners. The gap between the wires, C, is 2.13". The insulator pegs are 3¼" apart, so you can cut off the wires between the pegs to get the 2.13" gap.
6. Measure dimension B from the front corner peg, and mark that point on the wire with a fine-tip permanent marker or a piece of painter's tape.
7. Measure dimension D from the rear corner peg, and likewise mark that point on the wire .
8. Measure the distance between the marks on the two wires. If it equals dimension C (the gap), cut the wires at the marks. If not, determine why, and correct the problem.
9. Repeat steps f, g, and h for the wires on the opposite end.

Feed point

The front wire should run through both pegs on a feed point insulator (Figure 6) attached to the hub with a short 3/8" rod. You need to cut this wire and solder a 50-ohm coaxial cable (e.g., RG-8X) to the wire ends. Decide if you want to run this cable through the mast supporting the Moxon and out the ¼" hole in the top of the hub, or run the cable down the outside of the mast. I

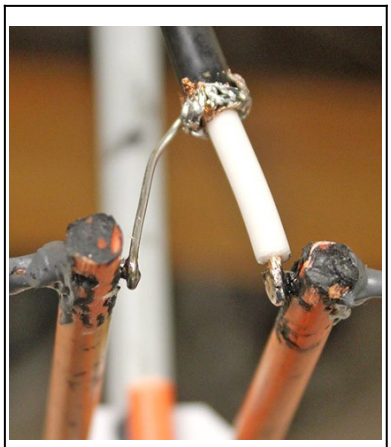


Figure 15: Feed point

chose to run mine inside, but outside would have made it easier to measure and adjust the antenna in my situation.

1. Cut the antenna wire midway between the pegs, than clip off about 3/8" from each end, leaving a ¾" gap.
2. Strip the end of the coax and separate the center conductor and the shield. I wrapped a length of #22 solid wire around the shield, trimmed and folded the shield over it, then soldered. It's easier and more effective to waterproof the shield with this arrangement, and soldering a single wire to the antenna wire is easier than soldering a bundle of braid.
3. Solder the center conductor and shield wire to the ends of the antenna wire.

Testing, tweaking, and final steps

Determine how you will install the antenna. The central hub has a 1.18"-diameter bottom hole that accepts 1" steel conduit. A small hole in the side is for a stainless steel screw into the mast to prevent the antenna from spinning on the mast.

Mount the antenna on your mast, and erect it temporarily in the clear where you can measure the SWR fairly accurately. Connect an antenna analyzer or SWR meter, and check the SWR at your design frequency.

Tweaking for low SWR

If the SWR is not low enough, you can adjust the antenna. According to the Moxon experts, you should adjust the driven element wire, not the reflector wire to achieve low SWR.

Figure 16: Tuning wire

On my antenna, I added about 2" of wire to the end of each driven element to lower the SWR. I soldered them at 90° to the antenna wire to maintain the gap to the reflector wire end (Figure 16, right). (I don't know how to maintain the gap if it's necessary to *shorten* the driven element.)

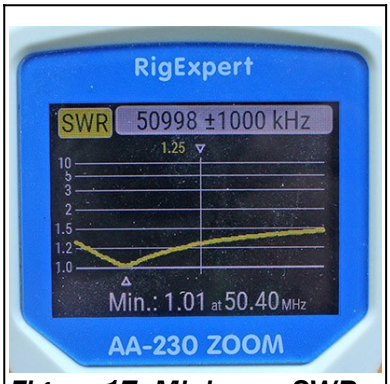


Figure 17: Minimum SWR

With these wire extensions, I was able to achieve an SWR of 1.01:1 at 50.4 MHz, higher than my design frequency (Figure 17, left). I considered lengthening the extensions, but the SWR plot showed less than 1.2:1 at my design frequency of 50.2 MHz, so I left it alone.

Final gluing

Apply adhesive to the wire and pegs on the wire end spacers. Otherwise, the spacer can slide on the wires, possibly allowing one to drop loose. Just put a dollop on the wire and both sides of

the peg. For extra peace of mind, consider doing the same on *all* pegs. It's extremely unlikely that the wire will slide at the feed point, and even more unlikely it will slide at a corner, but why not secure it anyway?

I glued a short length of ¼" fiberglass rod to the feed point insulator as a "finger" pointing in the forward direction. I rotate the Moxon by hand, so it's nice to look up and see which way it's aimed.

Waterproofing

It's imperative to seal the end of the coaxial cable so water can't get into it and corrode the shield or center conductor. I use Coax-Seal for this. I wrap it around the exposed coax conductors and mash it firmly into place. I also apply it to all soldered connections such as the feed points and the tuning stubs on the driven element.

Conclusion

I like to record information on any project I undertake so I can come back later to recall details. This document is an expanded version of my construction notes. I hope you find it helpful.

73, Mike N4CF