

WAVE FARM FM ANTENNA BUILDING WORKSHOP

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MODIFIED CUBICAL QUAD ANTENNA, optimized for the lower end of the FM dial
(for the middle of the FM dial, make the sides 30 inches instead of 32.8 inches.)

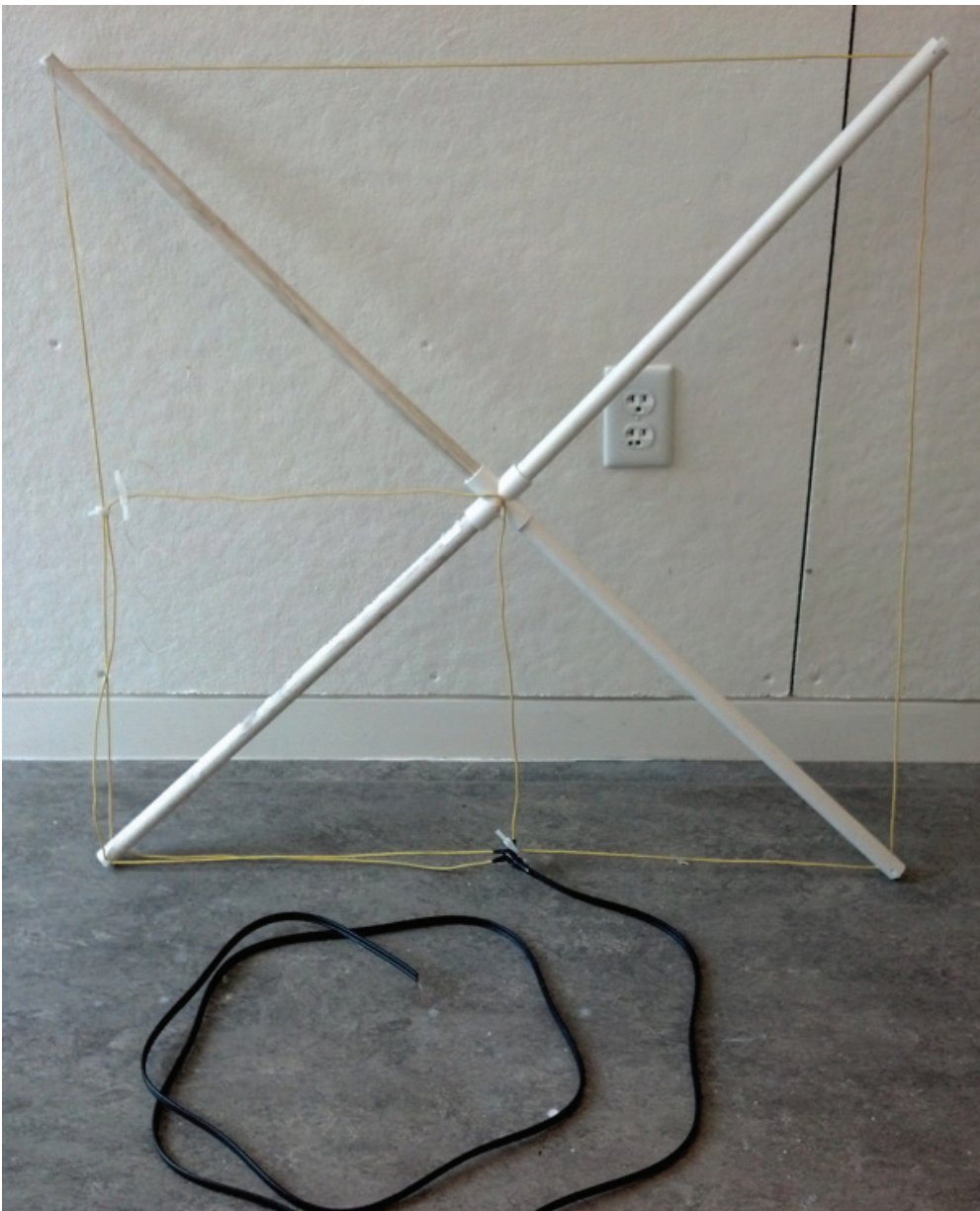
We're making an adapted version of this antenna:

<http://audiokarma.org/forums/showthread.php?t=215209>

The changes to design are in craftsmanship; the instructions in the link are for building a very refined version, with the purpose of taking it apart and packing/shipping it repeatedly, easily. At the bottom of the same link is a simplified version, which is what we're making.

This is from an earlier version which has incomplete diagrams:

http://www.wryr.org/Antenna_instructions.pdf



MATERIALS

(4) 23 inch lengths of 1/2 inch
PVC pipe

1 PVC cross-connector

6 zip ties

superglue

small (1/2 - 1 inch) piece of
dowel

electric tape

16.5 feet of 16 or 18 gauge
stranded **wire**, coated

twin-lead 300ohm wire for
lead-in, as long as you need to
get it to your receiver. Alternately
you could connect the antenna
wire directly to an 300 ohm to
75 ohm adapter, and then use
75 ohm coax as the line to the
antenna.

TOOLS

drill

1/4 in. drill bit (or something
close)

1/8 in drill bit (or something
close)

soldering iron, solder (optional
but good idea)

Make a big X with the PVC and the PVC cross-connector.

Look at DETAIL B on next page, measure the PVC for the holes for the wire and drill them according to the measurements in the diagram below.

Drill hole in center cross connector, fit wood dowel, superglue in place.

Thread wires around PVC, squaring the corners using zip ties.

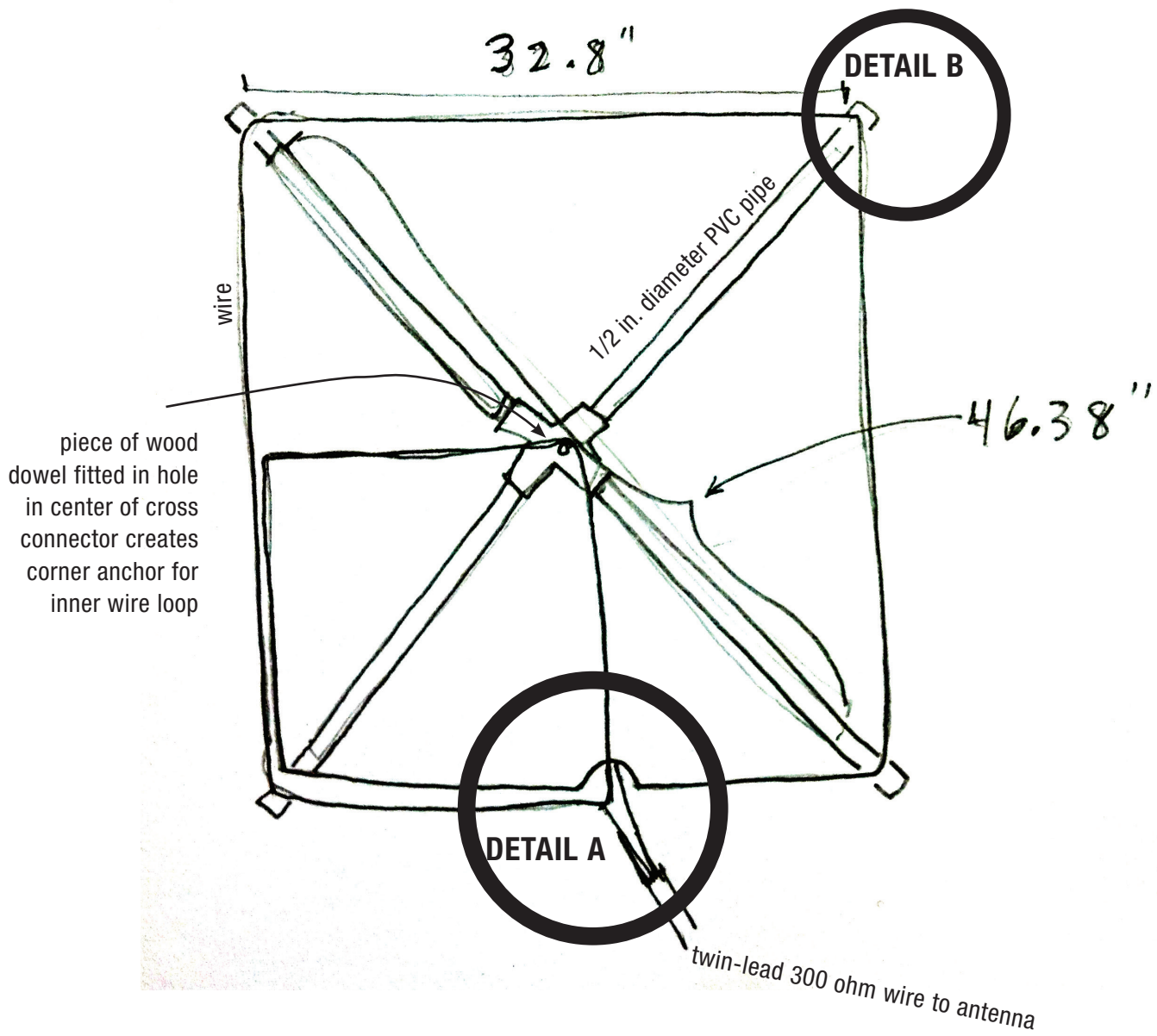
According to DETAIL A, twist together wire ends, strip a small (about 1 inch) of the long loop and attach one side of the twin lead to one loop and one to the other.

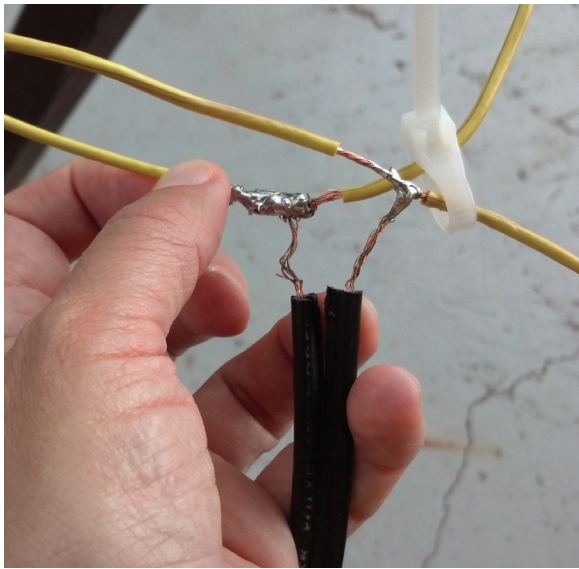
Connect 300 ohm wire to antenna.

Cover soldered connections with electric tape.

Superglue wire at center point to dowel; zip tie and superglue (and perhaps electric tape) to square corners and secure corners of small loop where they meet the middle of the length of the large loop.

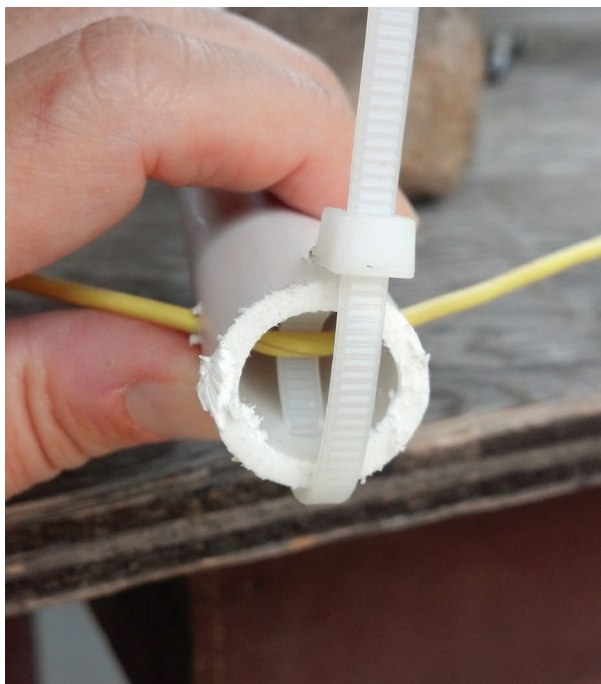
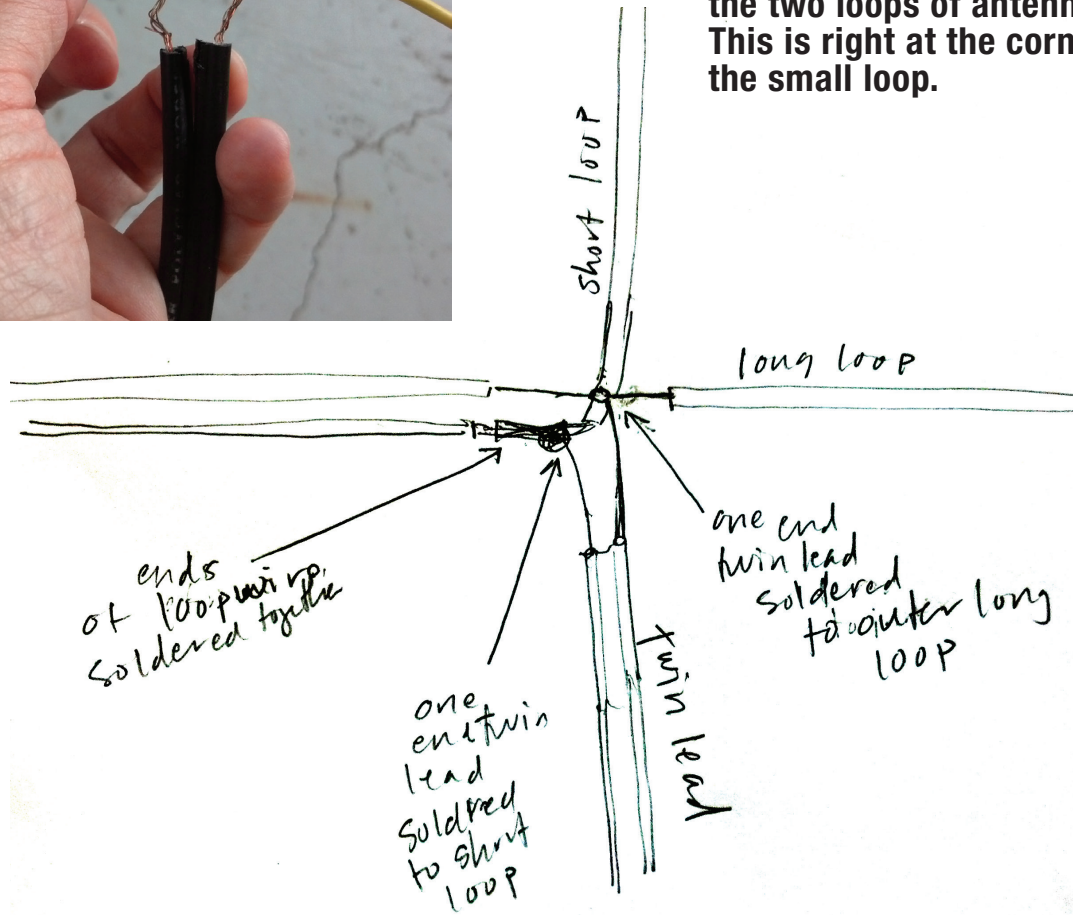
Experiment with antenna placement; an attic, closet, ceiling, etc. Reception will depend on specific location, antenna can be either horizontal or vertical.





DETAIL A

Connecting the twin lead to the two loops of antenna wire. This is right at the corner of the small loop.



DETAIL B

Corners of the large loop are squared off within the PVC using zip ties.

