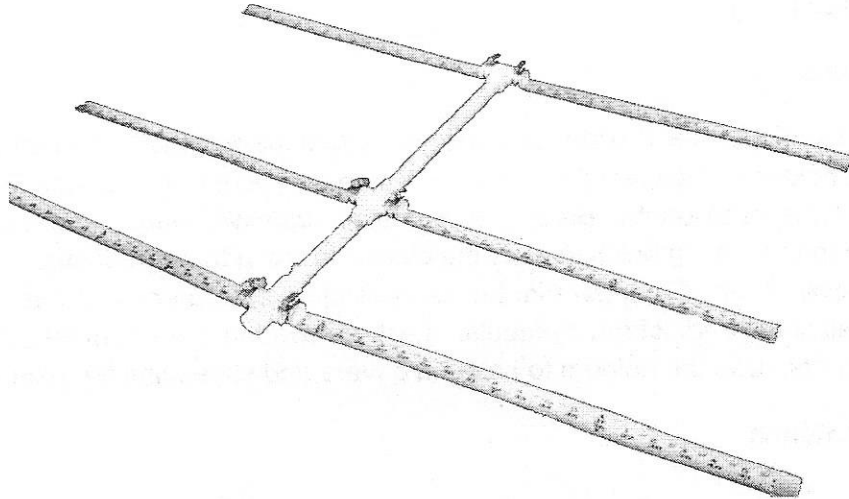


# 3 Element 2 Meter Tape Measure Beam

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[http://theleggios.net/wb2hol/projects/rdf/tape\\_bm.htm](http://theleggios.net/wb2hol/projects/rdf/tape_bm.htm)



## Build The boom

### Parts List:

1 ea. 1/2" x 28" PVC Pipe

1 ea. 1/2" PVC Tee

2 ea. 1/2" PVC Cross

5 ea. #6 Screws

Fasten the tee to one end of the pvc pipe making shure the tee is fully sheeted. Use a hammer to seat the tee if needed. Slide the two crosses onto the pvc pipe. One is 12" from the tee end and the other is 8" from the first cross. Place the boom in the drill fixture and secure in the alignment grooves. Clamp the drill guide down and drill all the holes with a 7/64" drill. Fasten the tee and two crosses using #6 screws. The boom is now complete and ready for the elements.

## Cut The Elements

### Parts List

1 ea. 41-3/8" Reflector

1 ea. 35-3/8" Director

2 ea. 17-3/4" Drivers

The elements are made from a 1" wide tape measure cut to the lengths in the part list. Remove the tape from the holder and discard the holder. Trim the end front from the tape and use the cutter to cut the elements to length. *Be careful as the cut ends will sharp.* Now move to the punch and punch the mounting holes in all of the elements using the proper stops for each element. Next move to corner rounder trim the corners of each element. Now use the sanding blocks to deburr all of the ends of the elements. Last remove the paint from the inside bottom of the driver elements. Use the holders to hold the drivers and shoeshine the paint off.

## Assemble The Antenna

### Parts list

#### Boom and Elements

2 ea. #6 Lock Washers

6 ea. #6 Flat Washers

8 ea. #6 Screws

1 ea. Matching Hairpin

1 ea. 50 Ohm cable Assembly

1 ea. Cable Tie

Attach the reflector and director to the boom using #6 screws and #6 flat washers. The flat washers goes between the element and the boom as a spacer. Next attach the drivers to the boom using #6 screws and #6 flat washers. There should be 1/2" between the two driver elements and only the holes on the end of the cross gets the flat washers. Bend the hairpin to a U shape about 3/4" wide. Secure the hairpin and cable assembly using the #6 screws and the #6 lock washers. The lock washer goes between the element and the hairpin/cable assembly to ensure good contact with the elements. Last secure the cable to the boom with the cable tie. Use the cable tighten tool to tighten the cable tie. The tool will automatically cut the tie when the right tightness has been reached.

Your antenna is done give it a try.