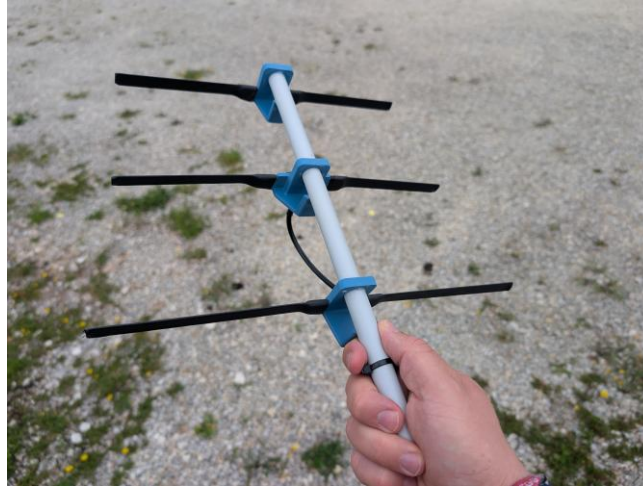


YOTA Summer Camp 2026 Wagrain, Austria

UHF Antenna



Number	Description
1	Measuring Tape
2	3D-Printer Parts
1	3D-Printer-Part for circuit board
100 mm	Heat shrink tube 12 mm with adhesive
1 m	Heat shrink tube 12 mm without adhesive
300 mm	Insulating tube (16 mm diameter)
1	Yagi-Circuit Board
1	SMA-Socket
2	Zip ties 150 mm (optional)

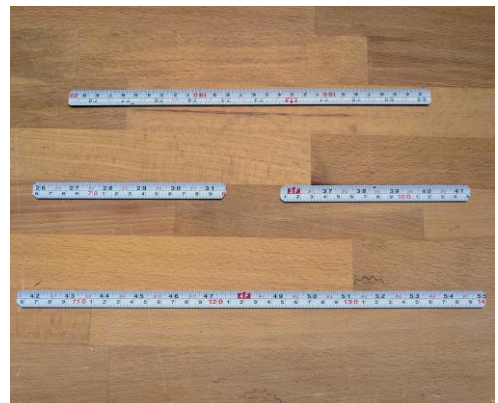
Step 1

- a) Check that all parts are present and complete.



Step 2

- a) Pull the measuring tape completely out of the dispenser and hang it up at the end
b) Let the spring spring back into the retractor.
c) Cut off the metal plate at the end of the measuring tape.
d) Cut 4 pieces with the following lengths:
1x134mm, 2x145mm, 1x280mm
e) Slightly round off the corners of the pieces.



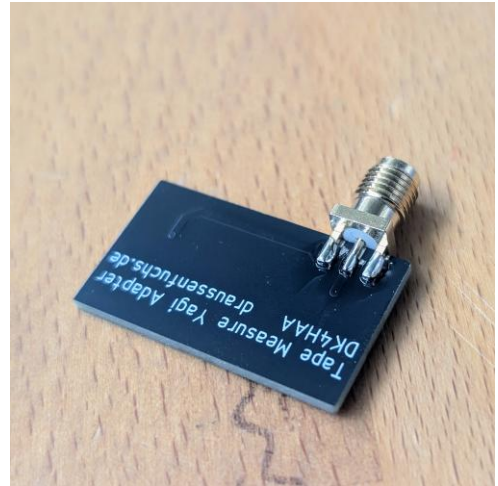
Step 3

- a) Sand down the paint off the two short pieces of measuring tape.
each at one end over a length of approximately 1.5 cm



Step 4

- a) Grab the circuit board and the SMA connector.
- b) Solder the SMA connector onto the circuit
- c) Make sure that all solder joints are clean and securely soldered.



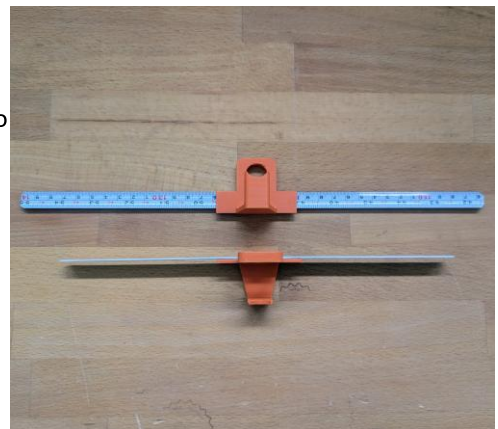
Step 5

- a) Distribute a generous amount of solder onto the large solder pads of the circuit board.
- b) Apply sufficient solder to the outwardly curved side of the measuring tapes as well, so that the temperature is distributed better.
- c) Then solder the measuring tapes onto the circuit board.
- d) Ensure that the measuring tapes are parallel to each other and that the edge of the measuring tape is flush with the edge of the solder pad. It should not extend beyond it.



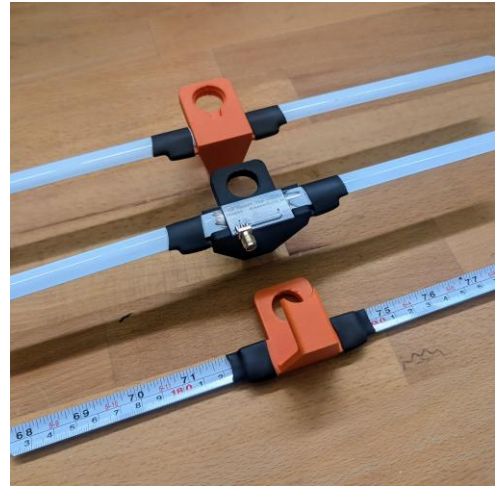
Step 6

- a) Take the two 3D printed parts of the same color and slide the 280mm long section and the 346mm long section, respectively, into the slot on the side.
- b) Slide until the measuring tape is centered and the same amount of tape protrudes from both ends.



Step 7

- Cut the short heat shrink tubing with adhesive into pieces approximately 20mm long.
- Place the soldered measuring tape into the recess of the remaining (differently colored 3D printed part).
- Now, place the heat shrink tubing over the measuring tape so that it goes over the outer legs of the 3D print.
- Caution:** 3D printing parts cannot withstand too much heat. Be careful when using a heat gun or lighter.
- Heat the heat shrink tubing so that it contracts and bonds the 3D print to the antenna.



Step 8

- Cut the long heat shrink tubing into 6 pieces.
- These should be long enough to reach from the middle of the antenna to just above the ends of the measuring tapes.
- Now shrink the long heat shrink tubes onto the measuring tapes.
- Make sure that the ends of the measuring tapes do not protrude, as they can be very sharp.



Step 9

- Now take the insulating tube and slide the 3D-printed parts onto it: The shortest part goes flush at the tip (position 0 mm). Next, the antenna part, which has been soldered on, goes at position 110 mm, followed by the longest part at position 230 mm.



Step 10

- Now align the individual elements so that they are in the same plane. Double-check the distances and then glue the plastic tube to the 3D-printed parts.



Step 11

- a) Use two zip ties to further secure the circuit board with the 3D print. This isn't strictly necessary, but it helps to secure everything together.
- b) Tip: The picture also shows you how to fold in the antenna legs.



Step 12

- a) You're done! Now try to find your first fox!

