

Horn Telescope Design and Construction

From a presentation by Daniel Bonnett at DSPIRA 2018
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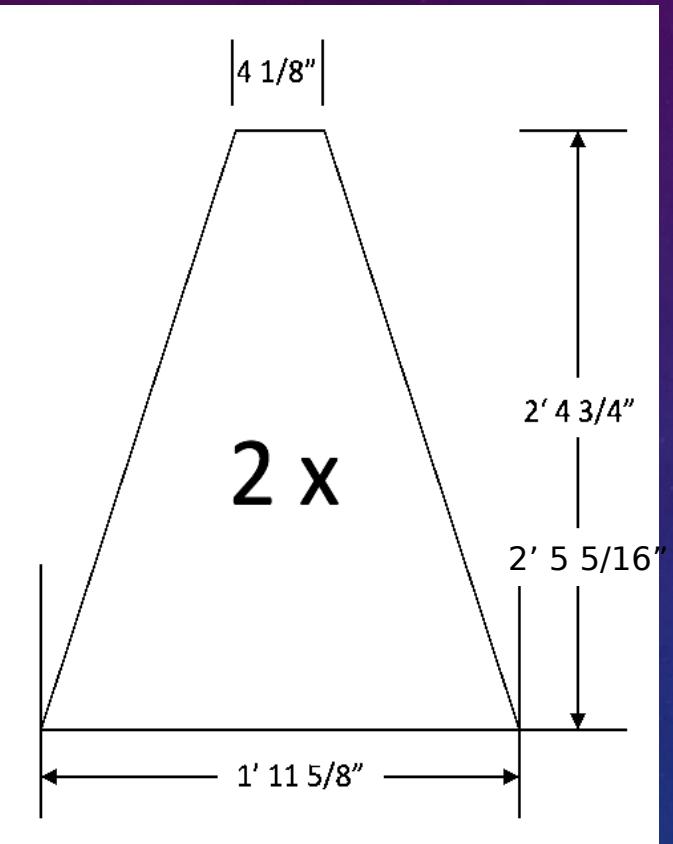
TELESCOPE DESIGN

- The DSPIRA Horn is designed as an “optimal” horn.
 - (which means that the angles of the trapezoidal sides are set for the resolution of radio waves that are collected)
- The DSPIRA Horn is designed as an “inexpensive” horn.
 - (which means that any science classroom teacher can construct this with their students as a classroom lab activity.)

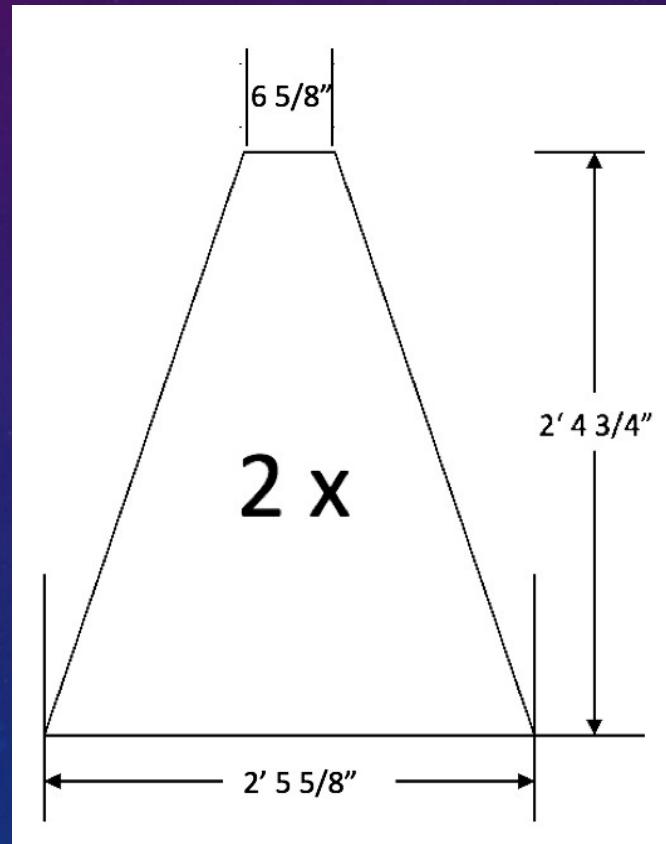
MATERIALS

- 1 gallon rectangular paint thinner can
 - (F-style metal gallon container)
- $\frac{1}{2}$ " to 1" thick Styrofoam board
- duct tape
- aluminum tape
- 2" x 4" boards
- 2" x 2" boards
- screws

MEASUREMENTS OF THE SIDES



Smaller side of
horn.

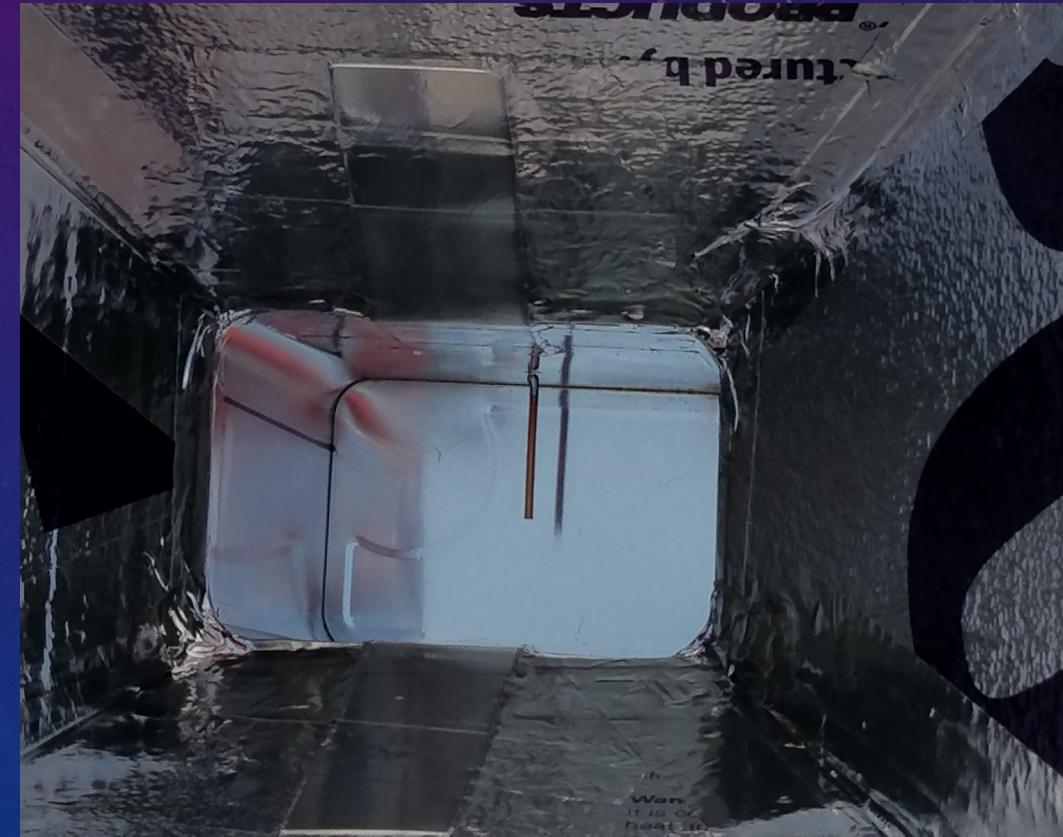


Larger side of
horn.

Piecing the sides together



The Can Antenna



The LNA mounts directly to the can.



HORN STANDS

CONSTRUCTION



Horn Base Mount

