ANT-PROOF HANGING FOOD RACK

Parts List:

- 2 4" sections of 1 ½" ABS pipe
- 1 1 ½" ABS DWV 90 Degree Hub x Hub Vent Elbow https://www.homedepot.com/p/1-1-2-in-ABS-DWV-90-Degree-Hub-x-Hub-Vent-Elbow-C5807VHD112/100206551
- 2 2" x 1 ½" ABS DWV Hub x Hub Reducing Coupling https://www.homedepot.com/p/2-in-x-1-1-2-in-ABS-DWV-Hub-x-Hub-Reducing-Coupling-C5801HD2112/100348398 *
- 1 3" x 2" ABS DWV Hub x Hub Reducing Coupling https://www.homedepot.com/p/3-in-x-2-in-ABS-DWV-Hub-x-Hub-Reducing-Coupling-C5801HD32/100346732 *
- 2 4" Foam Polyolefin Drain https://www.homedepot.com/p/NDS-4-in-Foam-Polyolefin-Drain-2/100147954
- ABS cement
- Duct tape
- Spray Foam
 https://www.homedepot.com/p/GREAT-STUFF-16-oz-Gaps-and-Cracks-Insulating-Foam-Sealant-with-Quick-Stop-Straw-99053937/206977048
- Silicone Sealant https://www.homedepot.com/p/DAP-Dynaflex-230-10-1-oz-Premium-Indoor-Outdoor-Sealant-18280/100177094
- 6 1" screws
- 5 − 4" zip ties
- 4 "J-clips"
- 2 Screw Eyes (#12 for plastic back, #10 for wood back)
- 4 #10 x ¾" machine screws w/ nuts & washers (plastic back only)
- 4 ¾" lathe screws (wood back only)
- 6" x 12" back board (wood or plastic)
- 14" x 14" square of ½" x 1" welded wire

^{*}Don't trust the photos on the Home Depot web site

Back Board:

Drill pilot holes in center of top (short) edge of board ~1" from each edge (3/32" for plastic back, 7/16" for wooden back)





Insert screw eyes in pilot holes (#12 for plastic back, #10 for wooden back)





Drill 3/16" holes in each corner of one drain cover



Center the drain cover on the board ~1" above the bottom edge of the board with the grate against the board.

For the wooden back, secure grate in place with lathe screws



For the plastic back, drill four holes in back board to line up with holes in grate and secure in place with machine screws (screw heads on back of board, washers & nuts on front [drain] side)





Pipe Stand:

Assemble and glue two pipe sections, one elbow and one 2" x 1 ½" coupling as shown:





Wrap the top of the elbow in $\sim 1/4$ " strips of duct tape as shown until 2" x 3" coupling sits snugly in place as shown (this should take ~ 3 ' of duct tape strips):





Drill one pilot hole (7/64") in the front of the lower portion of the 2" x 3" coupling and two in the back of the lower portion flanking the lower pipe section and secure with screws as shown:

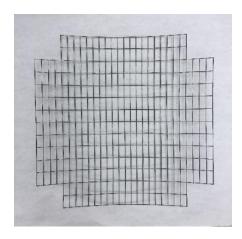






Basket:

Cut 14" x 14" piece of 1" x 1/2" welded wire and cut a 2" x 2" notch out of each corner



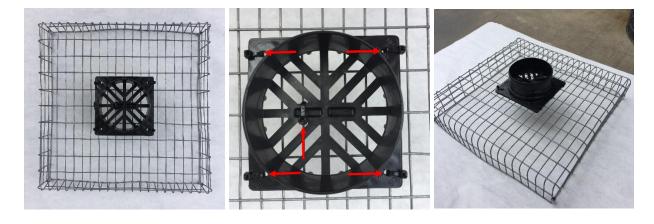
Bend sides up to form a basket and secure each corner one "J-clip"



Drill 9/64" holes in each corner of one drain cover



Lay the basket top down and center the drain cover on the bottom of the basket with the grate against the wire. Secure in place with one zip tie in each corner and one in middle running perpendicular to the zip ties in the corners (this will prevent the basket from sliding). Trim zip ties.



Assembly:

Insert the coupler end of the pipe stand into the drain mounted on the back board, drill two pilot holes in top of drain and one in bottom and secure with screws as shown



Seal the bottom of the moat with silicone sealant and fill tube with spray foam, trim off spray foam at the top of the pipe stand when dry. Allow plenty of time (like, several days) for silicone sealant to dry.



Place second 2' x 1 ½" coupler on top of pipe stand and basket assembly on top of that. There is no need to secure either of these pieces with cement or screws. Hang rack on wire with Shooks. Enjoy ant-free feeding!

