

RYOBI NATION

Copper Bike Rack

by Homemade Modern

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This Copper Bike Rack is made from copper pipe fittings and a small piece of felt. I used an angle grinder to make two cuts along a 2" to 3/4" reducer T fitting. I soldered the cut T-fitting to a length of 3/4" copper pipe and then used a nut and bolt to connect the other end of the pipe to a 3/4" T-fitting.

PROJECT INFORMATION

Difficulty: Easy

Categories: Storage & Organization, Recreation, Exterior Spaces, Garage

TOOLS USED

18V ONE+™ DRILL KIT

18V ONE+™ 4 1/2 IN. ANGLE GRINDER

PHONE WORKS™ STUD FINDER

MATERIALS USED

2"-3/4" COPPER T-FITTING

3/4" COPPER PIPE

3/4" T-FITTING

FELT

STEEL WOOL

GORILLA 2-PART EPOXY
TUBE CUTTER
PLUMBER'S TORCH KIT

PROJECT STEPS

STEP: 1



Cut the Copper Pipe I used my RIDGID Tube Cutter to cut the copper pipe.

STEP: 2



Mark the Cut Lines I used a Sharpie to mark two lines down the side of the 2" copper T. I made sure that the distance between the lines was wider than the diameter of the tubes that make the frame of my bike.

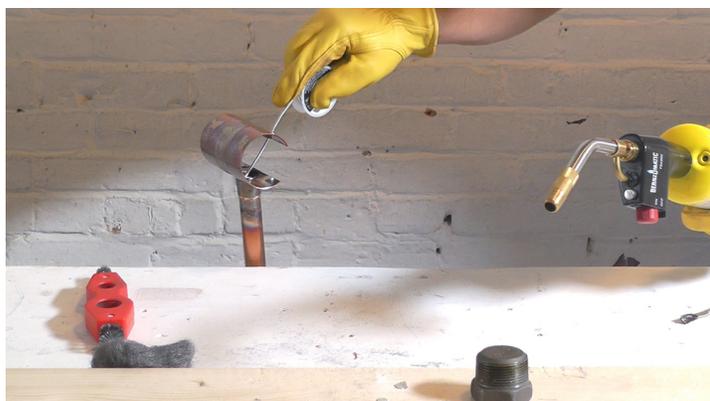
STEP: 3



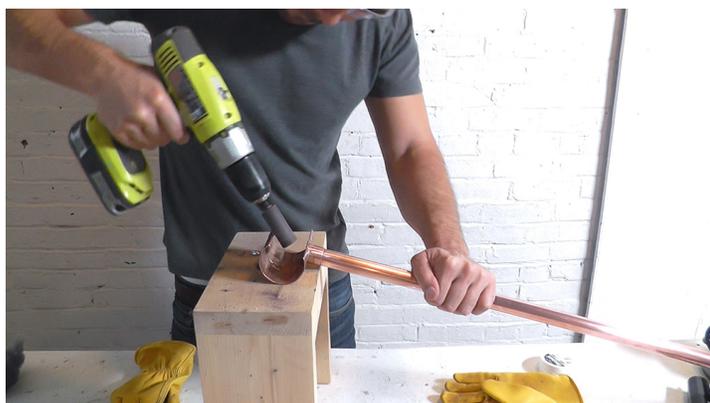
Cut the Copper T-Fitting I used my angle grinder with a metal cutting blade to cut along the lines that I drew on the T-fitting. I cut a groove along the line at first and then went back and cut through it with a second pass.

STEP: 4

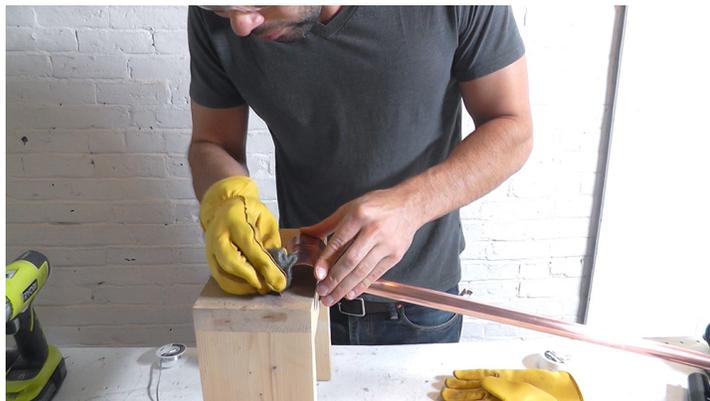
Clean + Prepare the Copper I cleaned the copper with steel wool and used a wire brush to rough up the ends that are going to be soldered.

STEP: 5

Solder the Fitting on to the Pipe I applied flux onto the joints of the pipe and then heated the copper with my torch. Once the copper was hot, I touched the solder to the joints. I soldered both sides of the joint.

STEP: 6

Sand the Cut Edges I used a sanding drum attachment on my cordless drill to smooth down the cut edges of the copper fitting.

STEP: 7

Clean the Copper I used steel wool to clean up the discoloration from the soldering.

STEP: 8

Attach the 3/4" T I could have soldered the 3/4" T to the other side of the pipe, but I thought I would try a mechanical connection instead. I inserted the pipe into the fitting and then drilled a hole through both the T-fitting and the pipe. I pushed a bolt through the holes and fastened it with a nut.

STEP: 9

Grind Down the Bolt I used my angle grinder with a flap disc to grind the bolt down, flush to the surface of the nut.

STEP: 10

Line It with Felt I had Jessie cut some felt and glue it to the inside of the copper fitting. She used 2-part epoxy and held it in place with paper clips while the epoxy cured.

STEP: 11

Install the Rack I wanted to make sure that I was attaching the rack to one of the beams behind the drywall of my ceiling, so I used a stud finder to locate it. I used my Phone Works stud finder to find the center of the beams. Then I screwed 3/4" copper loops on either side of the T-fitting.

STEP: 12

Hang the Bike My Linus bike fits nicely in the rack and I really love how minimal this piece is.