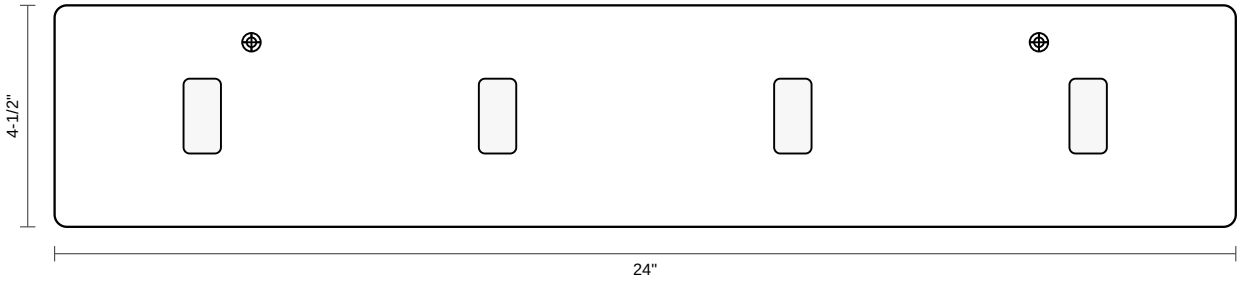
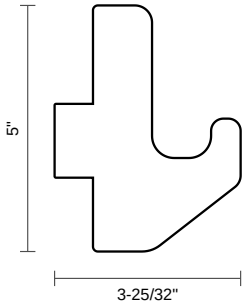
Coat Rack

24" rack with four 3"-deep J-hooks. Through-tenons lock the hooks in; plugged screw holes hide the mounting.

Board - 3/4" stock



Hook (make 4) - 3/4" stock



Machine & stock

CNC router, 1/4" end mill.

Grain runs left to right as drawn (out from the wall), so the hook arm and tenon are long-grain. Use a tough wood: oak, ash or hard maple.

The hook's tenon (1-1/2" x stock thickness) goes through the board and is 1/32" long to sand flush on the back.

Screw holes are counterbored 3/8" x 1/4" deep for wood plugs.

Hardware

Two #10 x 2-1/2" screws into studs. The holes are spaced 16" on center to match standard wall studs.

Two 3/8" face-grain plugs.

Steps

1. Machine the board (counterbores, screw holes, mortises, profile) and the four hooks.

2. Round the hook tenons' corners to the 1/8" radius in the mortises.

3. Ease the hook edges well so they don't stretch coat collars. Glue the hooks in; sand flush behind.

4. Finish, screw it to the wall, and glue in the plugs, then trim and finish them.

VCarve toolpaths (in this order)

Holes, layer DRILL_0.190_THRU: 0.190" diameter, through. Drilling toolpath with a matching bit, or spot the centers and drill by hand.

Holes, layer DRILL_0.375_DEPTH_0.250: 0.375" diameter, 0.250" deep. Pocket toolpath with the 1/4" end mill.

Profile, Inside, layer PROFILE_INSIDE_0.750: cut depth 0.750" (through), 1/4" end mill.

Profile, Outside, layer PROFILE_OUTSIDE_0.750: cut depth 0.750" (through), 1/4" end mill, with tabs.

Files

dxf/coat-rack.dxf

Plan view, drawn at about 1:3.9. Grey = pocket (depth noted), dashed = underside pocket, light fill = through cut. Cut files are full size.