



Pipe Junction Box for Low Voltage Electrical



Detour

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Summary

Use this to get your ethernet or other low voltage cabling through your walls.

[Household](#) > [Other House Equipment](#)

Tags: [cat6](#) [cat5e](#) [cat5](#) [cat6e](#)

Print the junction box from PETG, ABS, or other outdoor stable filament. Print at 100% infill, with supports.

Print the grommet from TPU at 100% infill, with supports.

Install the grommet into the end of the junction box, then thread your ethernet through. The grommet supplied has a 6mm hole which works perfectly with the 6.2mm Cat6 cabling I needed this for. Follow your local regulations. Mine says I can use this for low voltage wiring, but anything else would be a gray area at best.

Install the junction box on the wall using the 3 holes to screw it down. Be sure to put some outdoor caulk or other outdoor rated sealant under the flange before screwing it down to prevent water ingress.

I was installing a wireless bridge, and needed some way to get a single Cat6 cable in through the wall of my barn (the bridge is PoE, so only one

cable needed). The existing methods available at the big box stores all seemed like massive overkill for what I actually needed, which was simply a way to protect the wall from water and insects and hold the cable in place so it doesn't rub on the sides of the hole and fail over time. This model was the smallest, simplest concept I could come up with to meet that need. I printed from PETG, but will likely replace with ABS or ASA once the fume hood for my printer is completed.

Sorry about the potato quality photo, but when I finished installing it 20 feet up it was already 9:30PM and dark out. I probably shouldn't have been on the ladder in the dark, let alone taking glamor shots for fake internet points using my drill to light the frame while not holding onto the ladder with either hand.

Model files



pipe-junction.stl

☐ PETG or ABS, 100% infill, with supports



grommet.stl

☐ TPU, 100% infill, with supports



pipe-junction.fcstd

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