



## Bowden Tube Coupler using PC4-M10 Pneumatic Fittings



MyStoopidStuff

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### Summary

This is a screw together Bowden tube coupler which, has an optional TPU insert

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This is a Bowden Tube coupler which uses (2) PC4-M10 pneumatic fittings on both ends. I designed it so I could easily open up the tube which goes into my printer enclosure and connects to my BMG extruder. I gonna see if I can integrate a filament runout sensor into this thing, and if it works out, I will another version with the sensor as a remix.

There are two versions of the “D” part:

The D1 type parts can use an insert printed in TPU.

The D2 type part does not need the insert.

I think the TPU insert could be improved to actually seal the tube, but I don't really need a seal for my enclosure, but it may help a little to keep things dry. To help it “seal” though, let the end of the Bowden Tube extend by about 8mm from the face of the “B” part (which screws into the “A”

part), that is shown in the 2nd to last pic. A flat head screwdriver will be needed to screw together the A and B parts, which retain the “C” part with the internal threads and large hole.

Some of the parts will need to be rotated for printing without supports (recommended).

The STEP file is included for easy remixing. If you make one, please post a make, and if you have a question or idea on how to improve this please post a comment, thanks for looking!

This was designed using ViaCAD3D V12 Pro

If you like this thing, please like it or download it (which helps to get me closer to my first free spool of Prusament). Or you can [check out my site](#), to see what other projects are in the works.

Updated 2/22/2022 to correct a problem with the PC4-M10 threads. The new version is "5C".

## Model files

 **STL's** 6 files



**inline\_filament\_coupler-5c-a.stl**



**inline\_filament\_coupler-5c-b.stl**



**inline\_filament\_coupler-5c-c.stl**



### inline\_filament\_coupler-5c-d2.stl

☐ This coupler does not require a TPU insert



### inline\_filament\_coupler-5c-d1.stl



### inline\_filament\_coupler-5c-d1-insert.stl

☐ Print this in TPU and use with "Inline\_Filament\_COUPLER-5C-D1"



## STEP File

1 file



### inline\_filament\_coupler-5c.stp

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