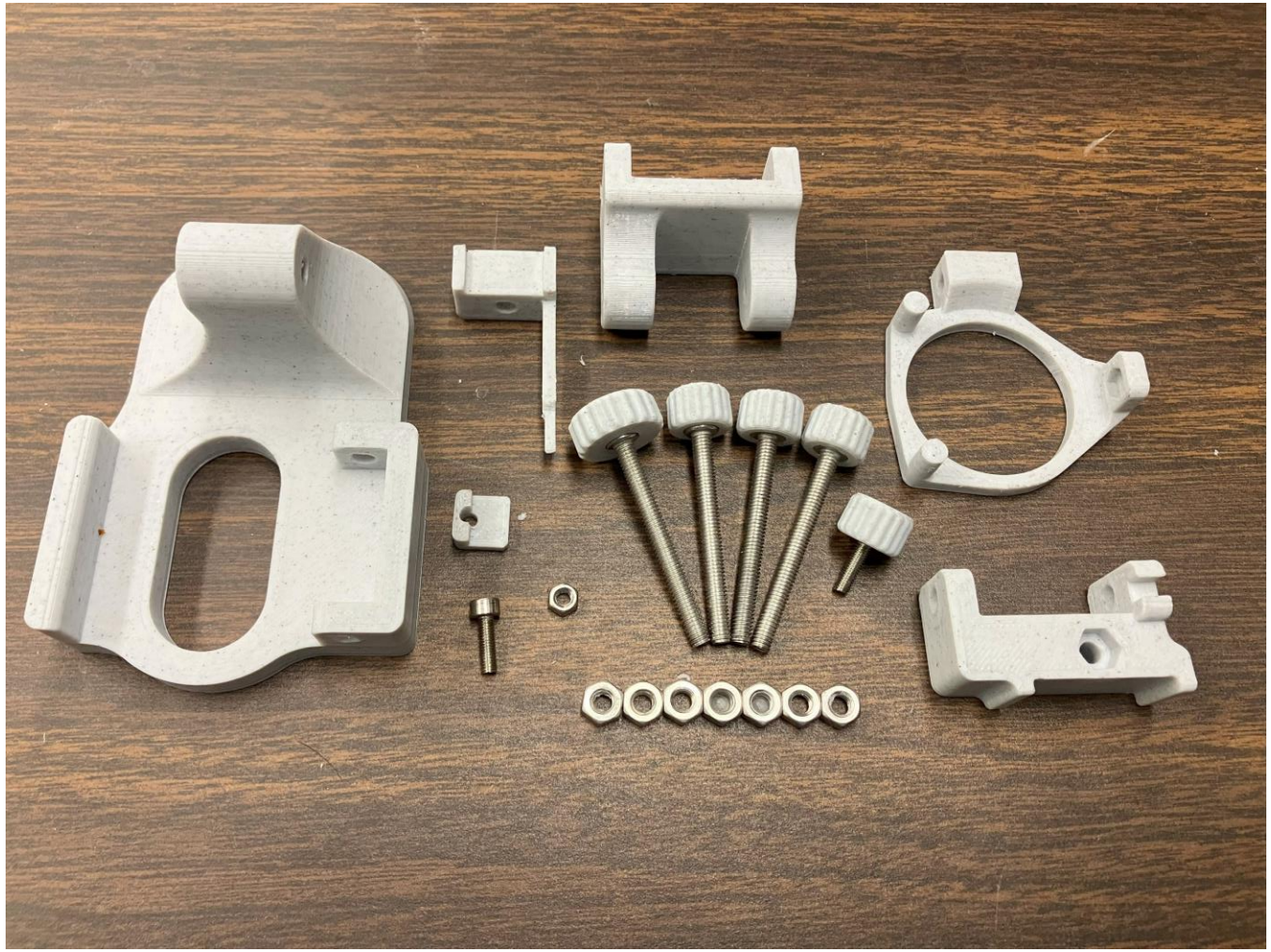
Print parts, ream out M4 holes with M4 drill bit, same for the M3 holes. Press screws into knurled heads. Press M4 nuts into hexagonal impressions in the parts.



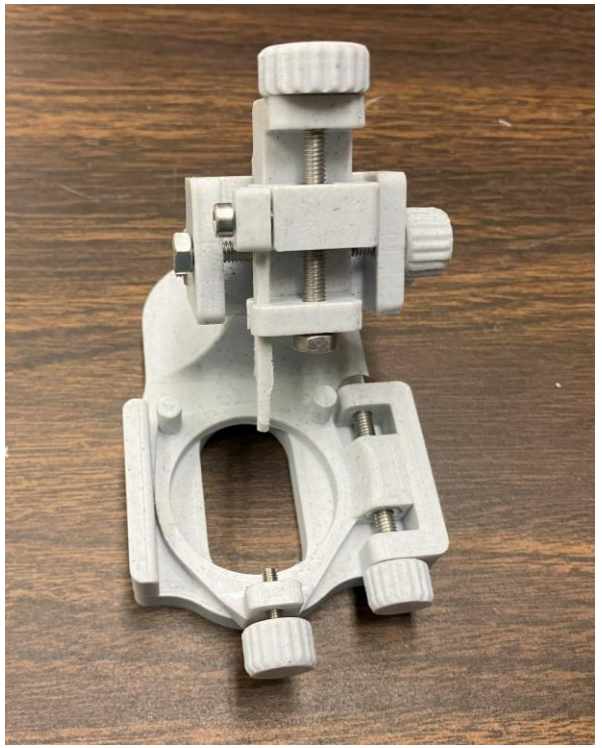
Press M3 nut into the petri dish holder, attach petri dish holder to base. Glue nut to the end of screw to hold in place. Sand and use grease to ensure smooth movement.

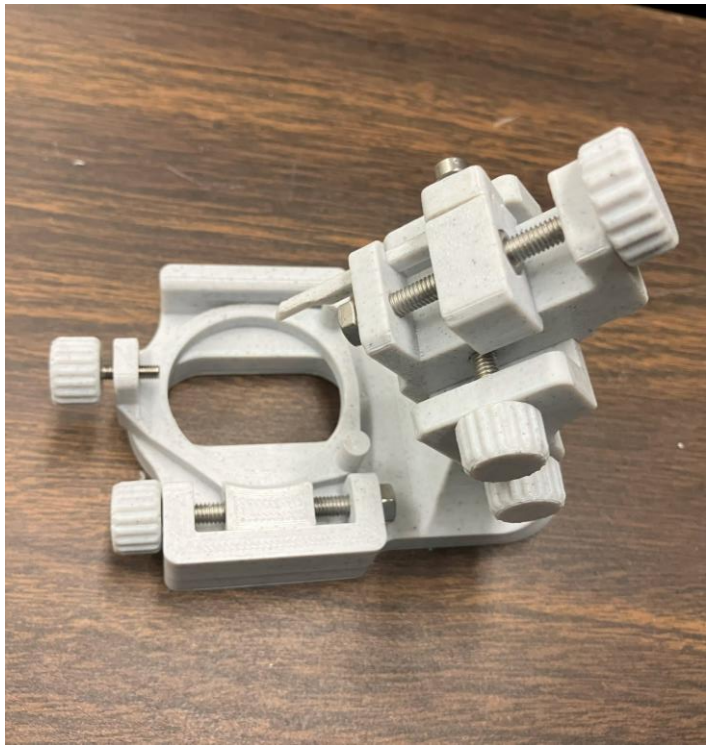
Attach fiber holder holder tab onto the extension carriage. Attach extension carriage onto the part that functions as both the rail for the extension carriage and the x carriage, glue nut in place. Sand and use grease to ensure smooth movement.




Attach the extension carriage assembly to the y axis rail and glue the nut in place. Sand and use grease to ensure smooth movement.

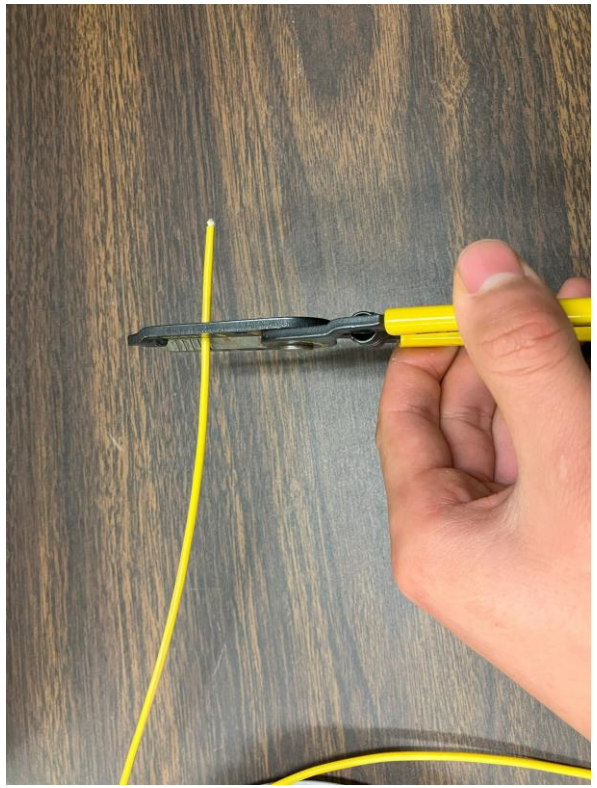
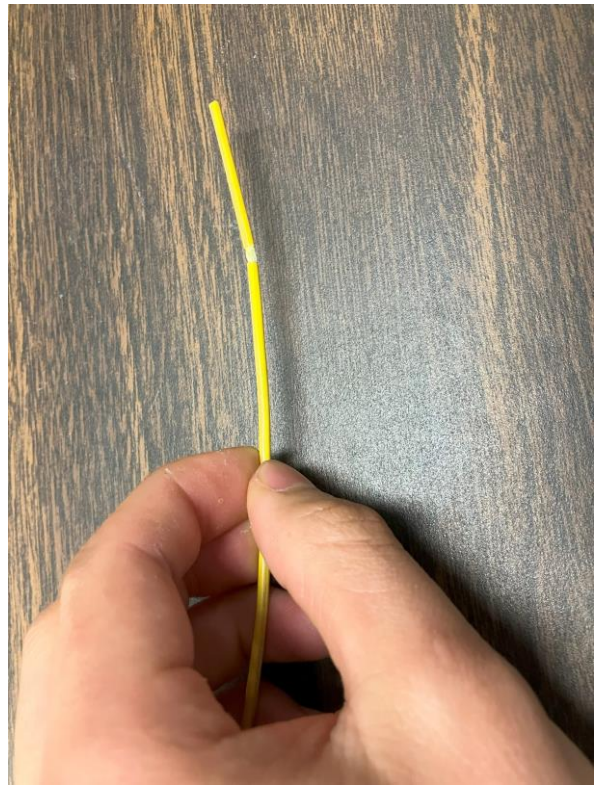
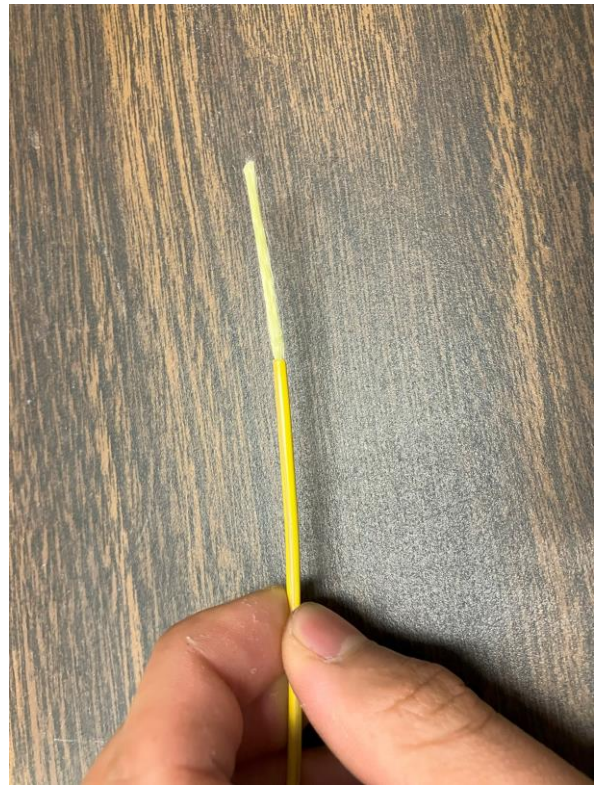
Attach the entire assembly to the base. Glue the nut in place. Sand and use grease to ensure smooth movement. Test the movement and sand/grease as needed.



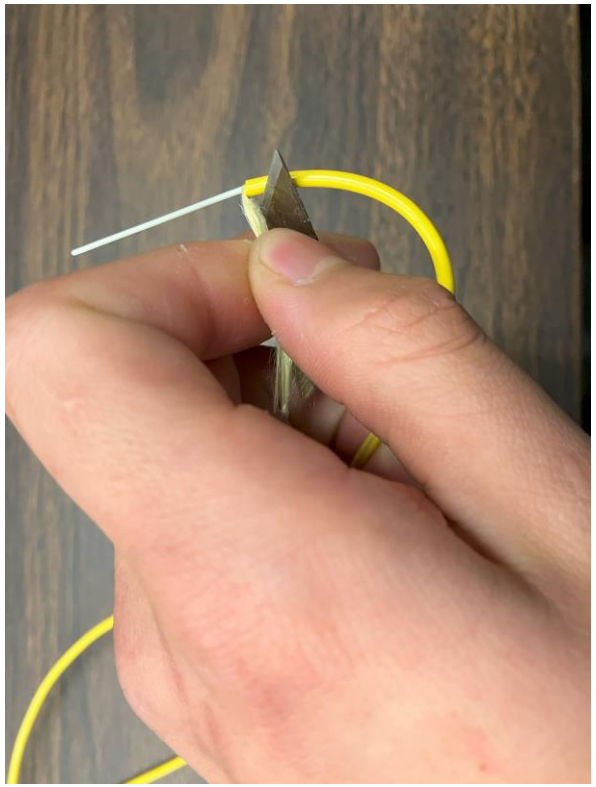


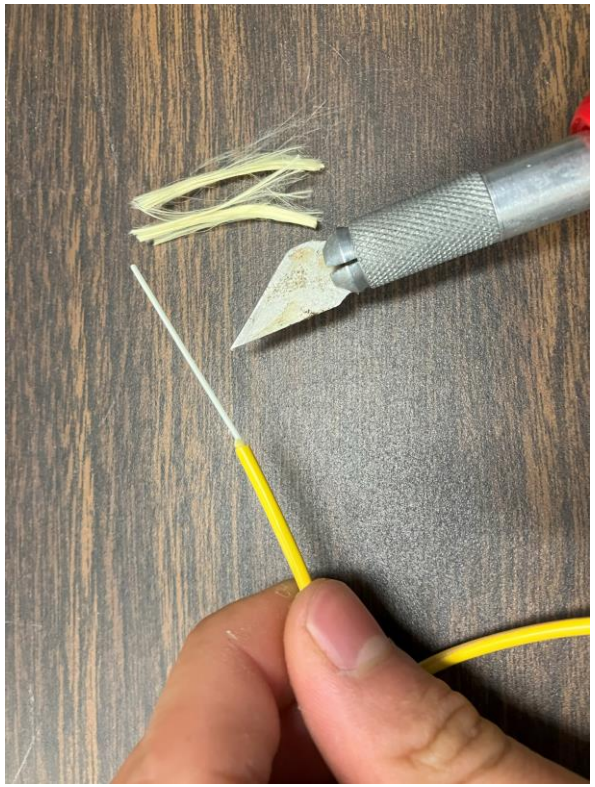
Add tape to improve grip and prevent the probes from slipping around.

Cut the optical fiber in half. Use wire strippers to remove the outer protective coating of the optical fiber.

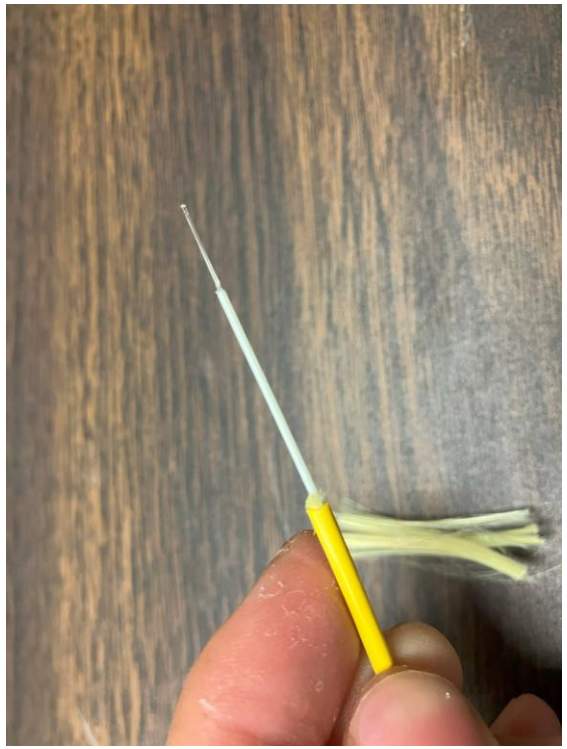





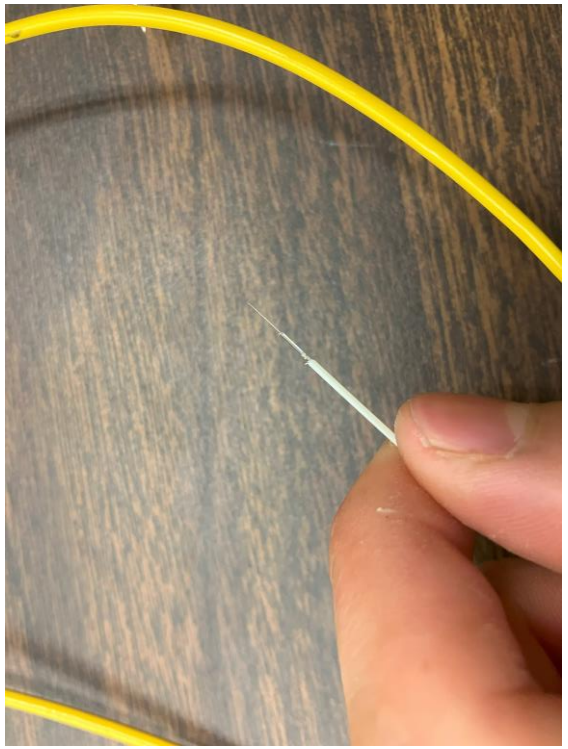
Remove protective aramid fiber using a knife.





Remove second and third protective coatings around the glass fiber using wire strippers.



Mount the fiber to the probe cassette by unscrewing the holder tab, inserting the fiber, tightening the holder tab, then taping the end of the fiber.