

Manual E2 – How to Replace the Thermocouple – V1.0

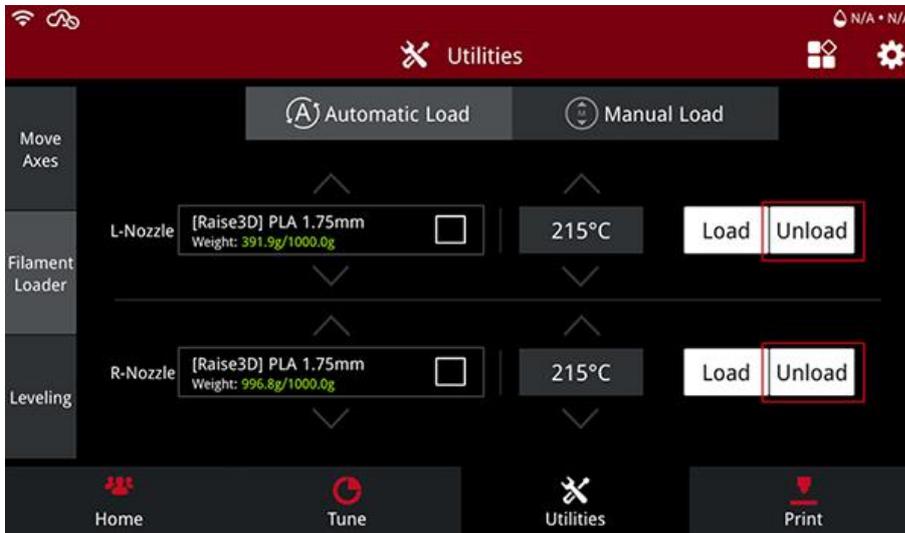
Tools:

- ① 2 mm hex wrench
- ② 1.5 mm hex wrench
- ③ 3 mm hex wrench
- ④ Adjustable Wrench

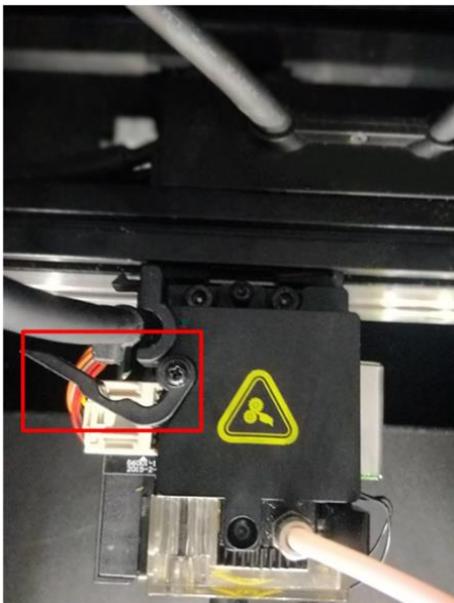


1. Before you start, please unload the filament from the extruder of which the thermocouple on the hotend needs to be replaced first.

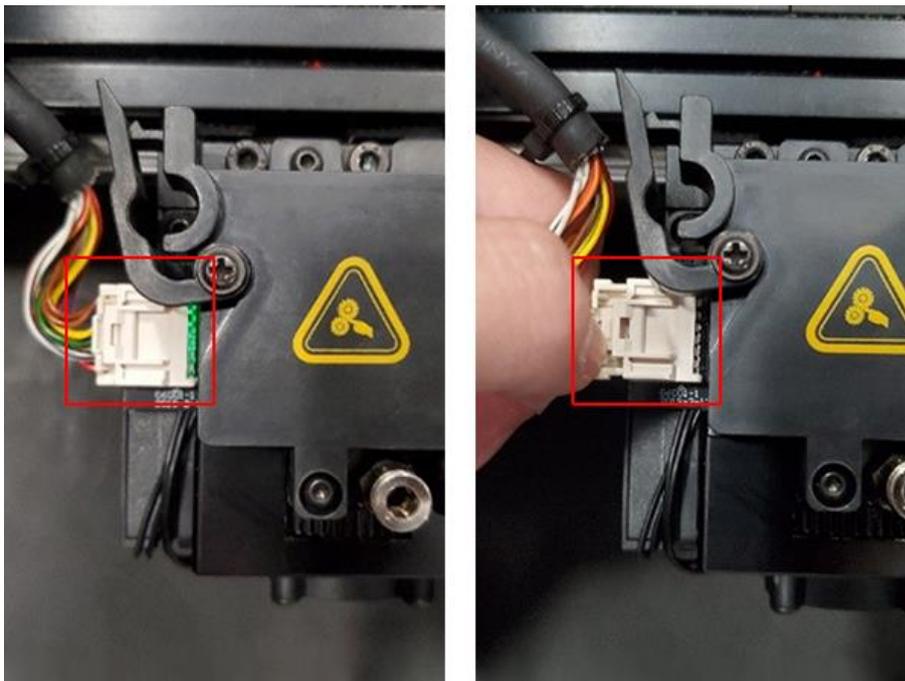
Note: For the unload temperature, please refer to the printing temperature of the filament or the label on the filament spool.



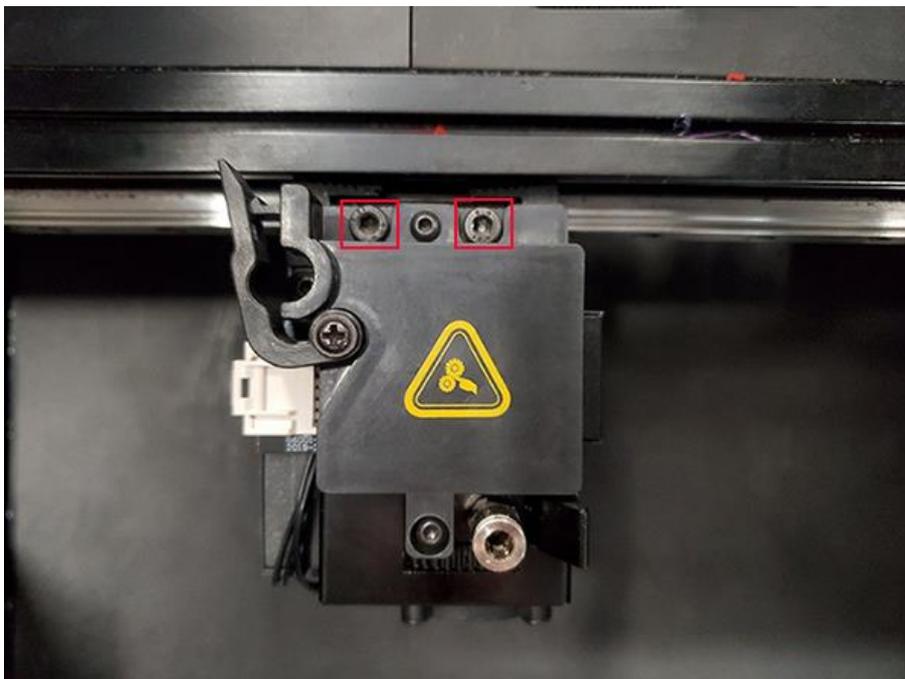
2. Power off the printer.
3. Release the extruder connection cable retaining buckle.



4. Remove the extruder connection cable from the board by pressing the small plastic connector down, and gently pulling the connector out.



5. Use a 3mm hex wrench to remove the two screws retaining the extruder on the X-axis.



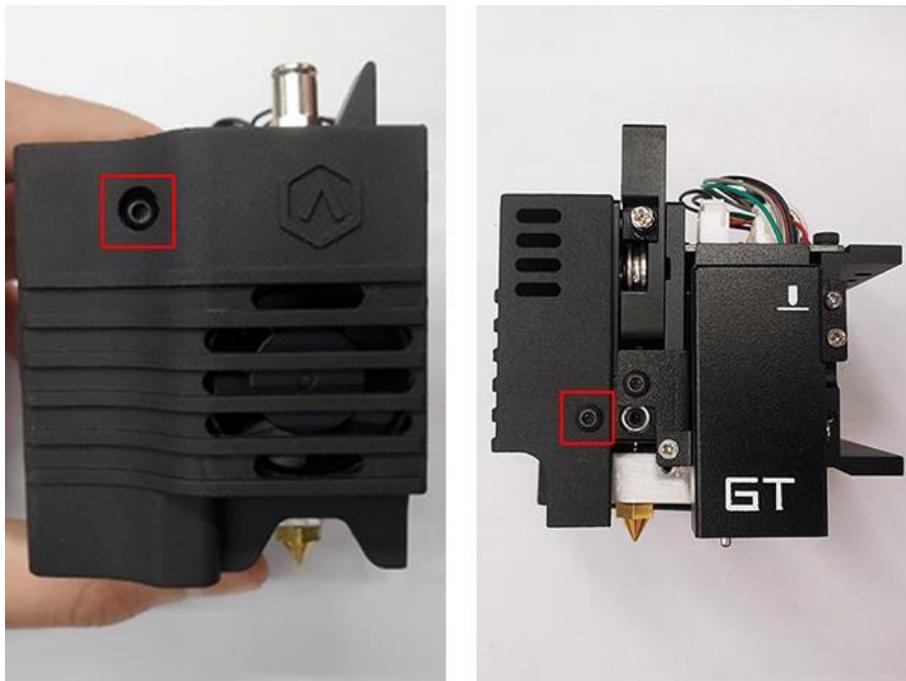
6. Remove the extruder from X-axis, and put it on a working desk.



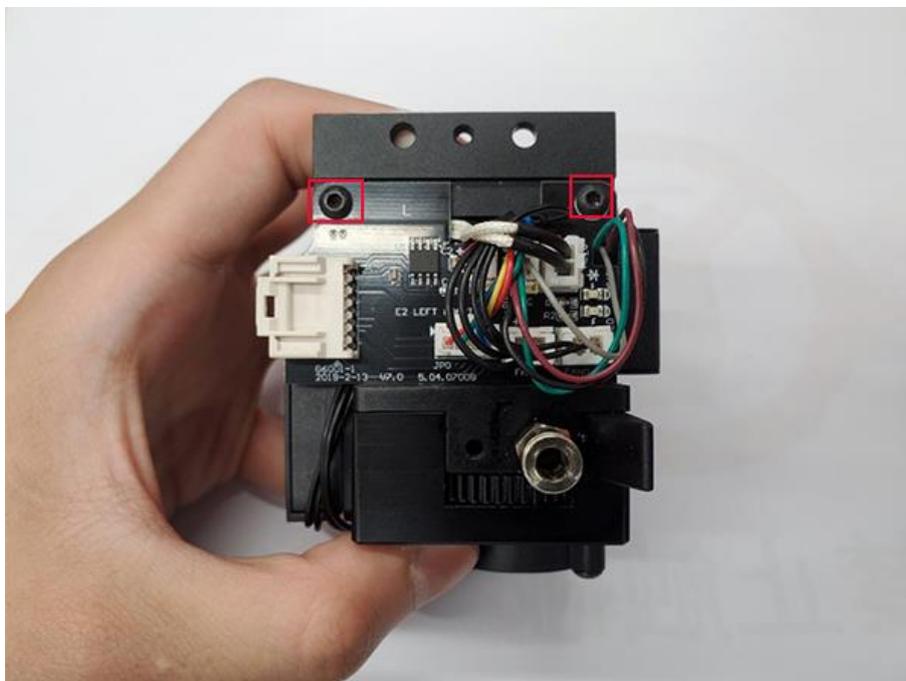
7. Use a 2mm hex wrench to remove the two screws retaining the extruder connection board cover to the extruder, and remove the extruder connection board cover.



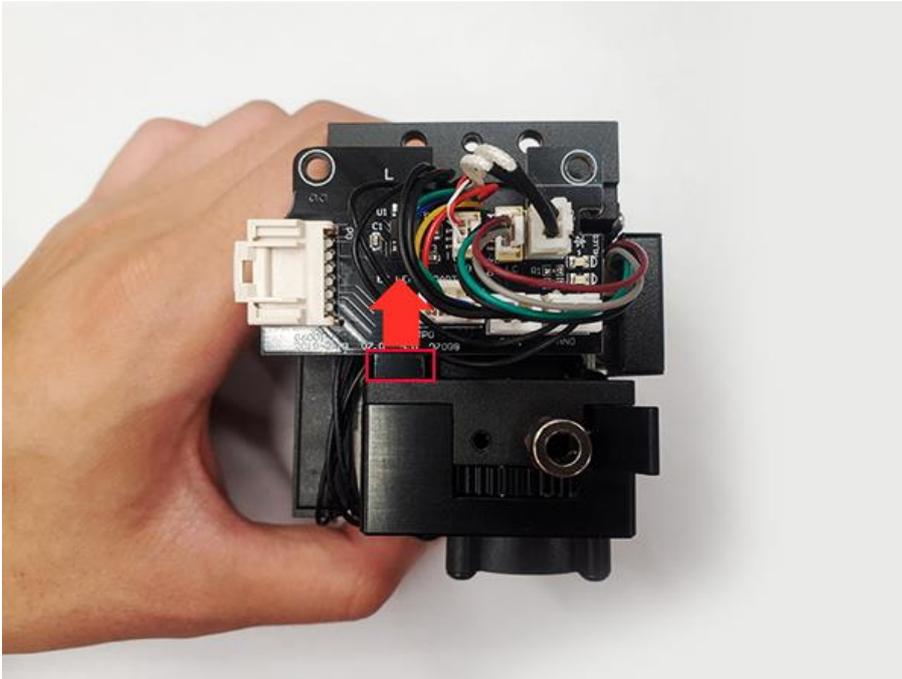
- Use a 2mm hex wrench to remove the two screws retaining the front cover to the extruder, and remove the front cover.



- Use a 2mm hex wrench to remove the two screws retaining the extruder connection board to the extruder.

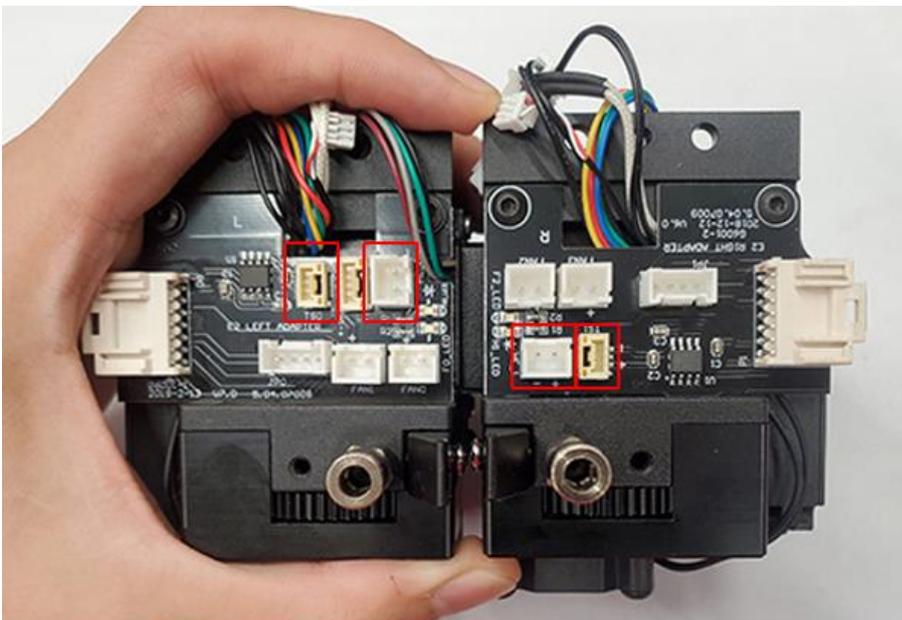


10. Gently pull out the extruder connection board in the direction of the arrow shown below. Be careful not to break the small protrusion.



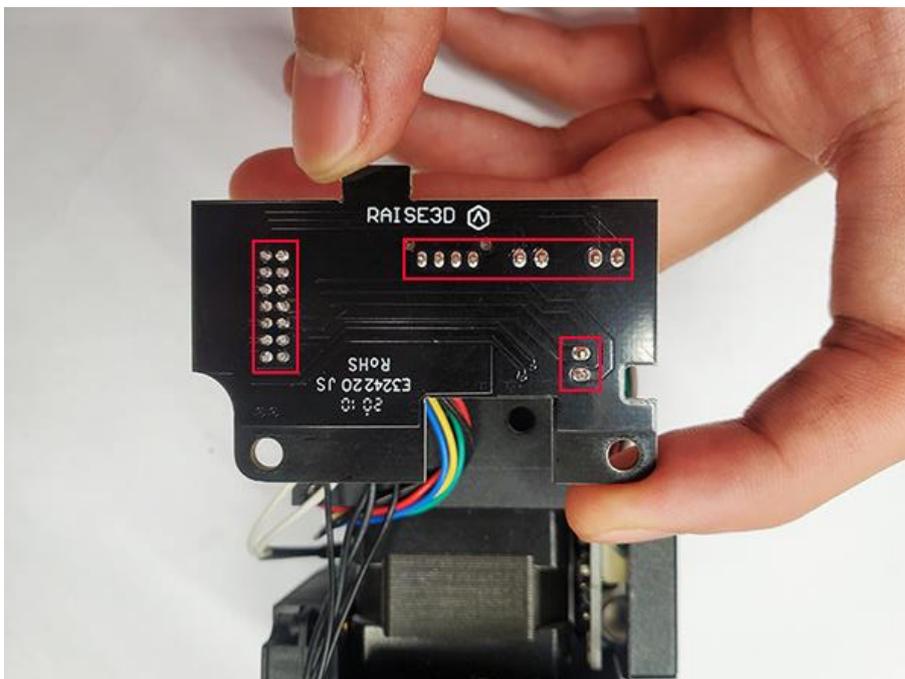
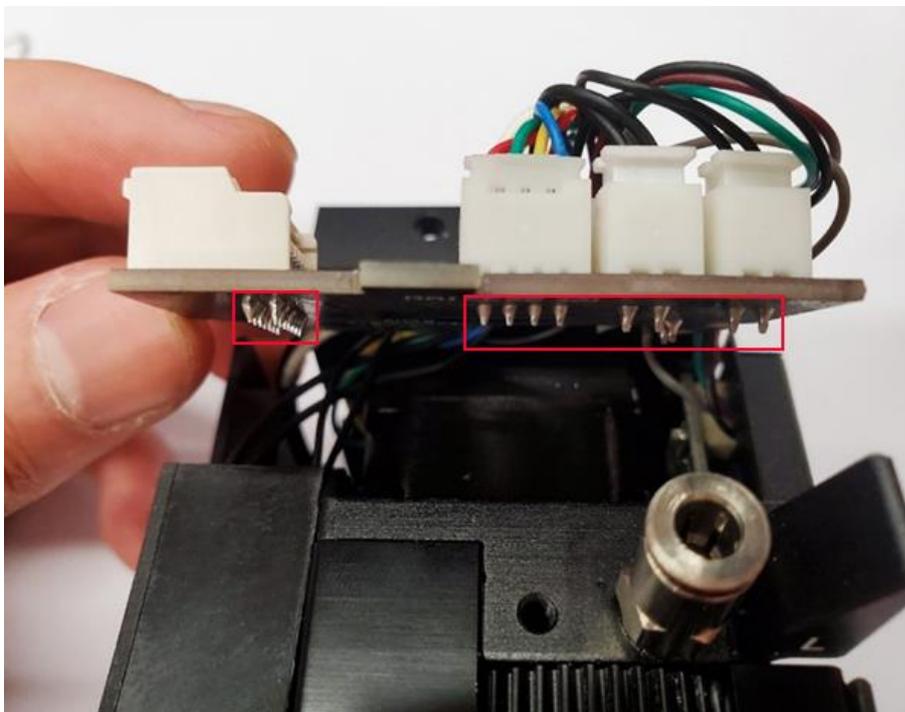
11. Remove the thermocouple cable and heating rod power cable from the extruder connection board on the print head.

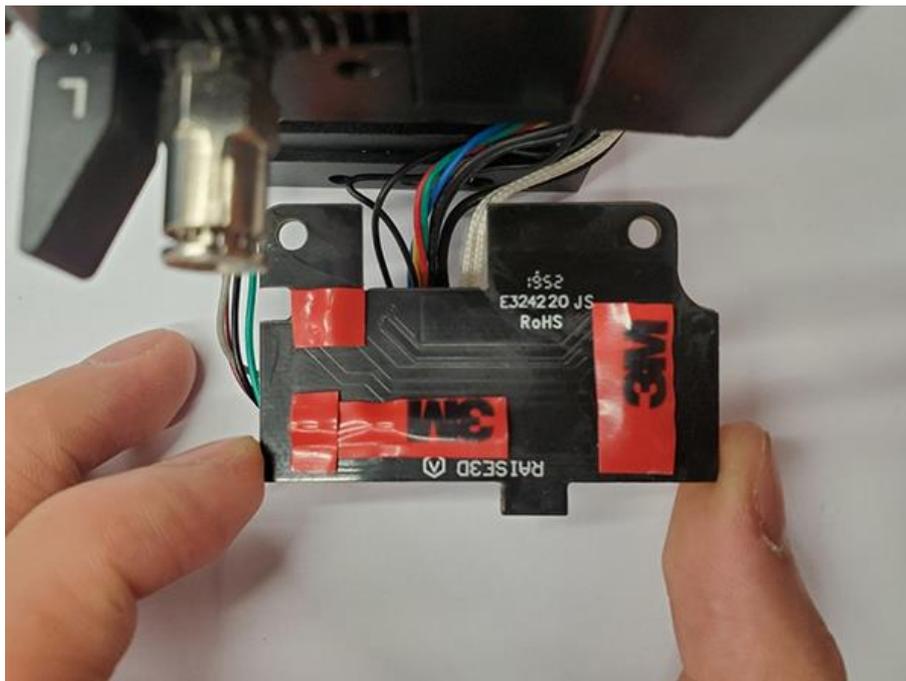
Note: The positions of thermocouple cable and heating rod power cable connector on the left and right print head are different, please distinguish between them according to the marks in the following figure.



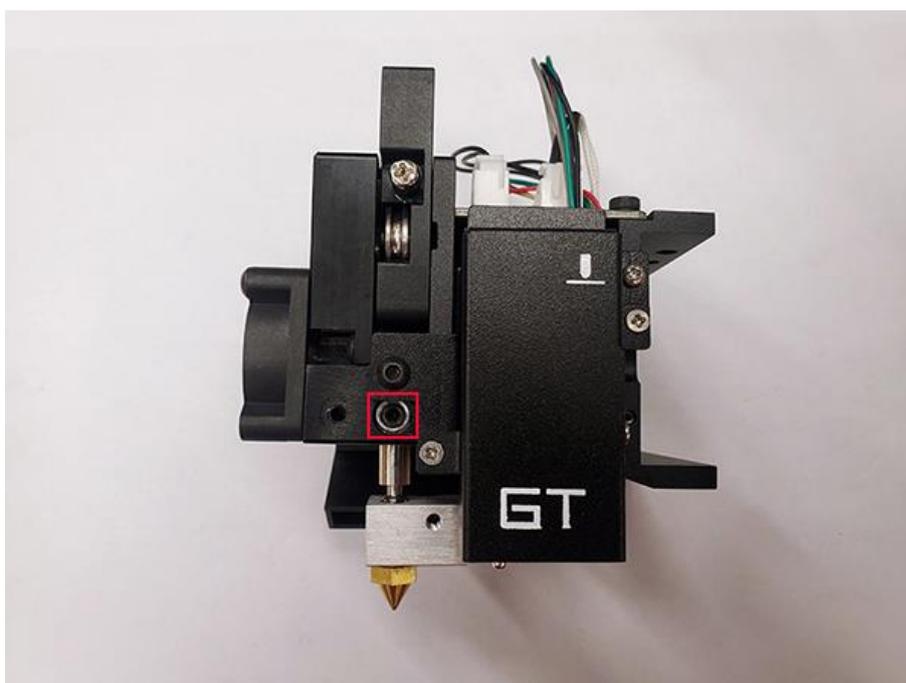
L-Print Head R-Print Head

12. There are two rows of sharp welding pins on the back of the board. Cover the sharp welding pins with thick insulation tape to prevent it from injuring the nylon covering of the hotend cable, or it may cause short circuit.

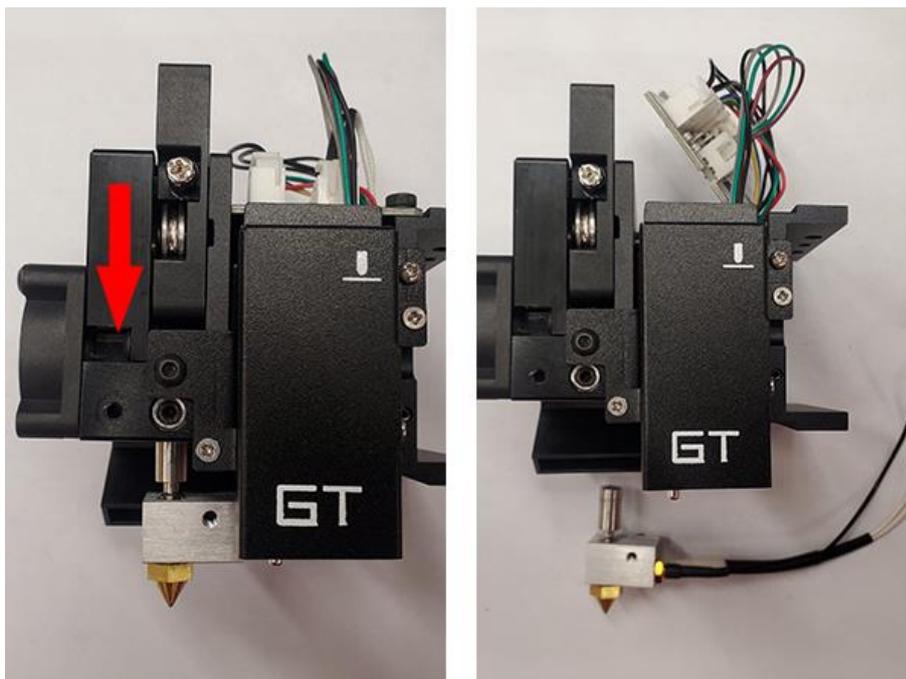




13. Loosen the hotend retaining screw with the 2mm hex wrench.

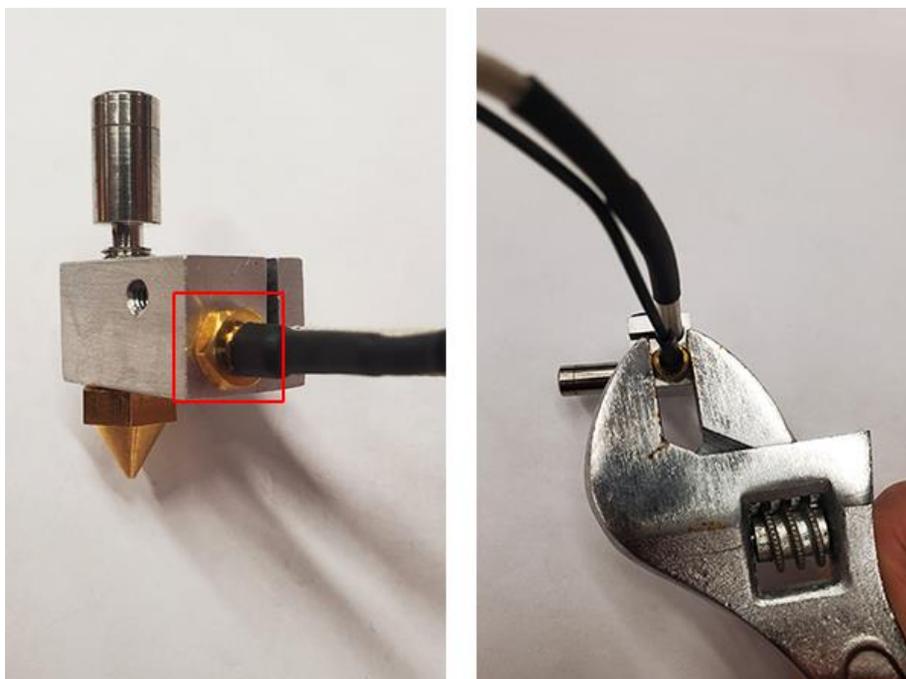


14. Pull the entire hotend assembly out.



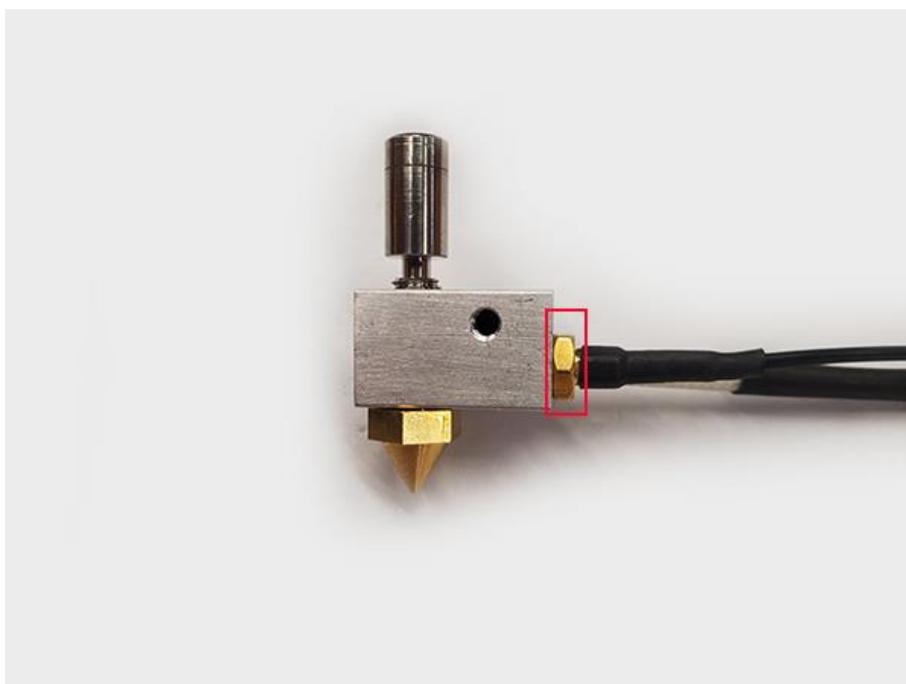
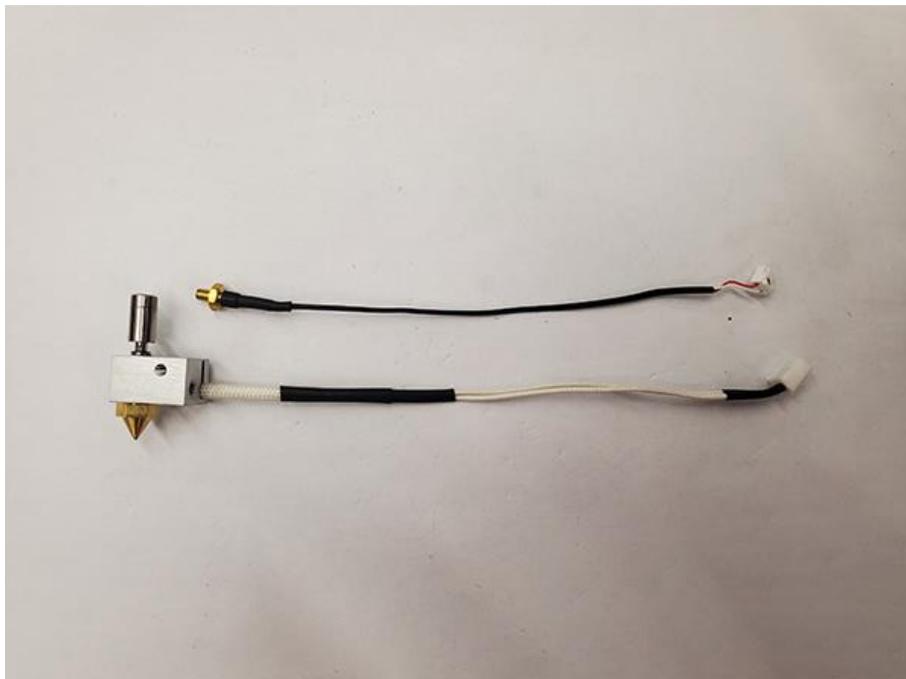
15. Remove the thermocouple on the hotend with an adjustable wrench.

Note: It may be more difficult to disassemble the thermocouple if there are any filament remaining on it. If this happens, please reconnect the print head and heat the hotend to melt the filament. And be careful not to damage the heating rod power cable when removing the thermocouple.

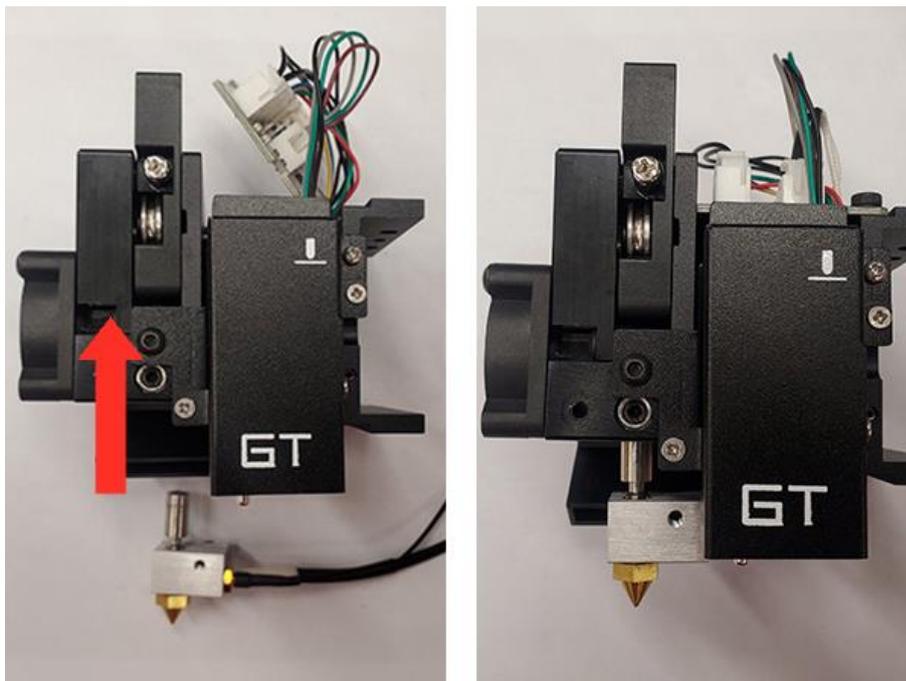


16. Prepare a new thermocouple, and then screw it back on the hotend.

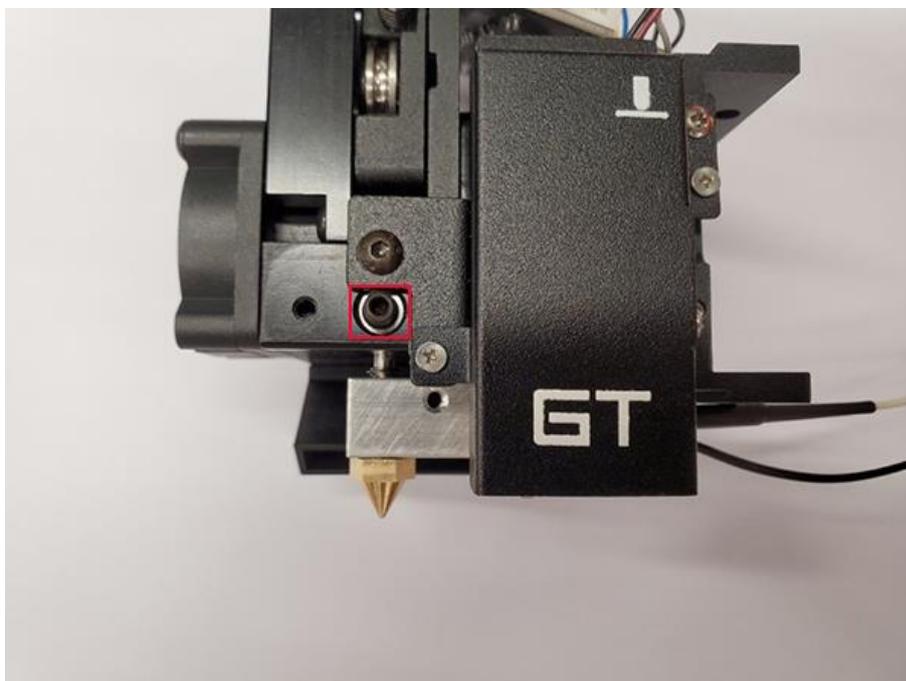
Note: Please make sure that the thermocouple is fully screwed. If the thermocouple is not fixed completely, the printer will report a board error.



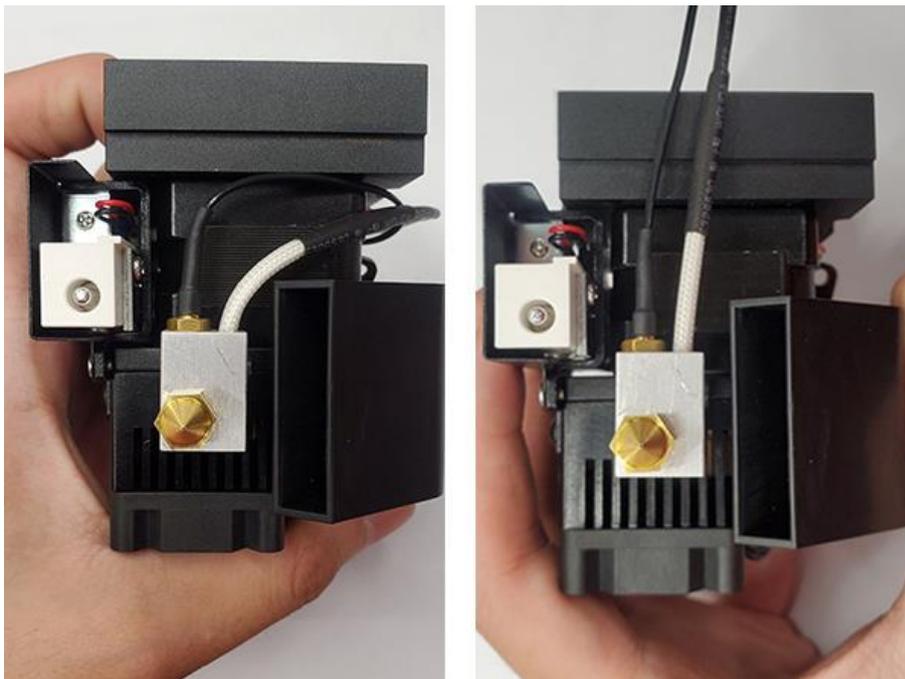
17. Insert the hotend back to the print head.



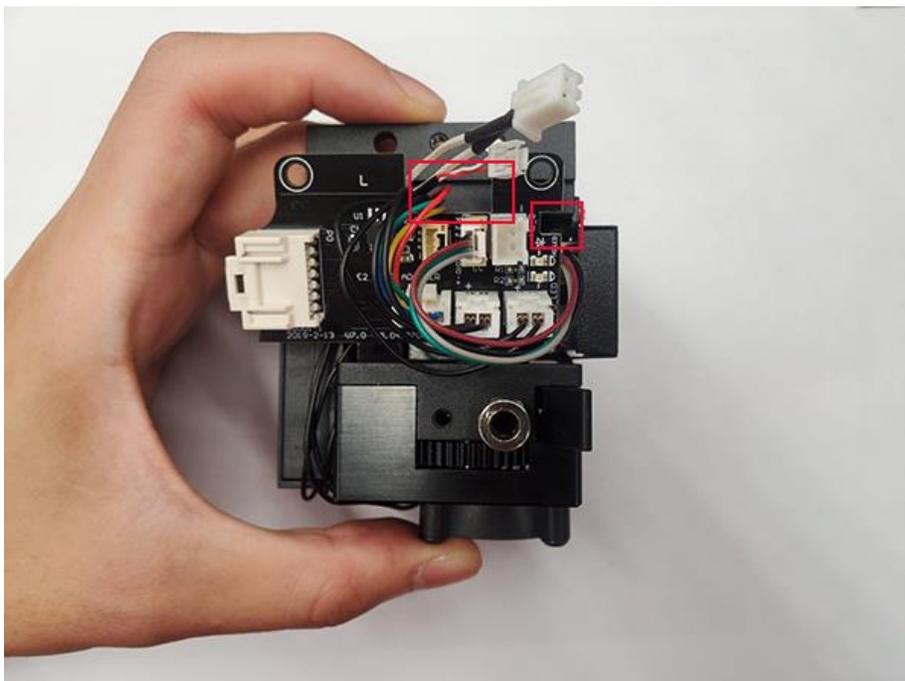
18. After the hot end is fully inserted, reinstall the retaining screw.



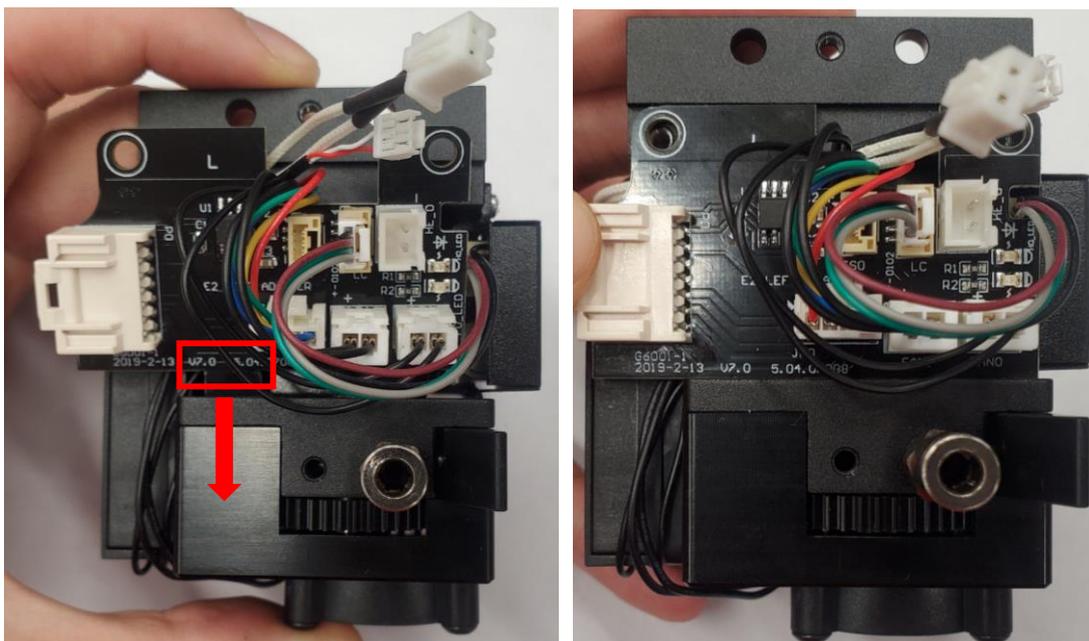
19. Bend the cable around the motor.



20. Place these cables into the cable management slots of the extruder controller board.

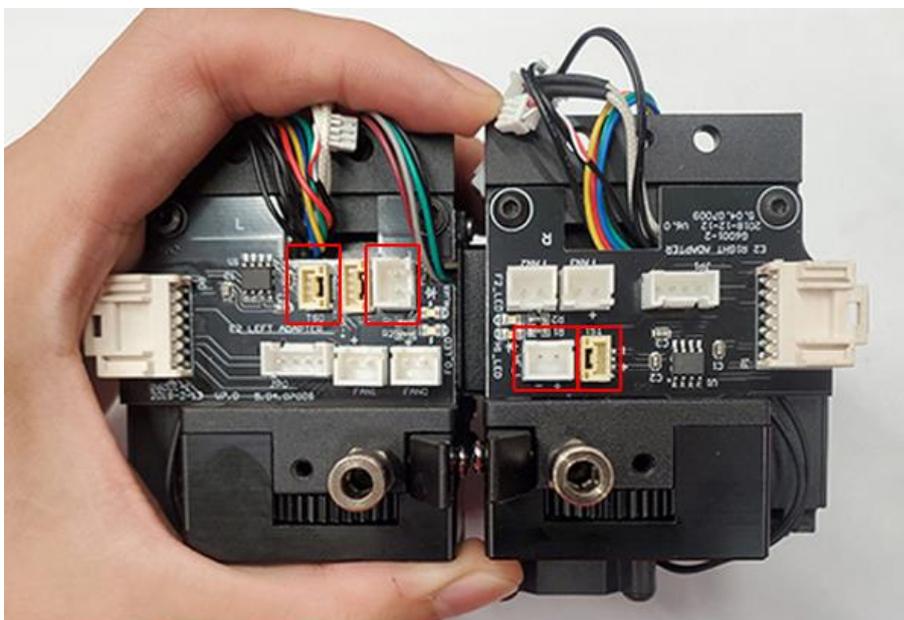


- 21. Plug the small protrusion of the board into the hole on the extruder.



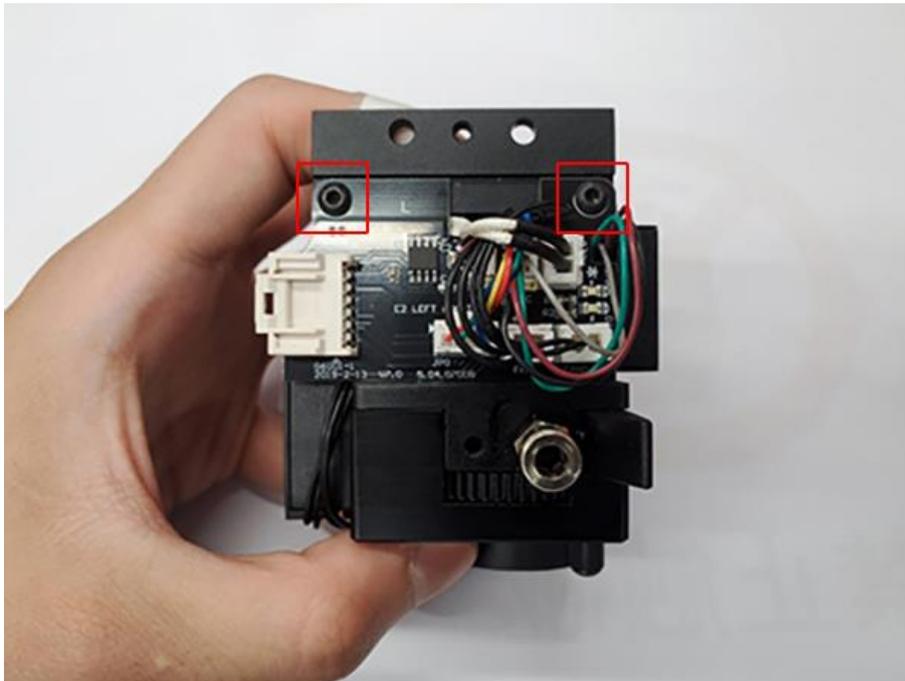
- 22. Plug the thermocouple cable and heating rod power cable back to the extruder connection board on the print head.

Note: The positions of thermocouple cable and heating rod power cable connector on the left and right print head are different, please distinguish between them according to the marks in the figure.

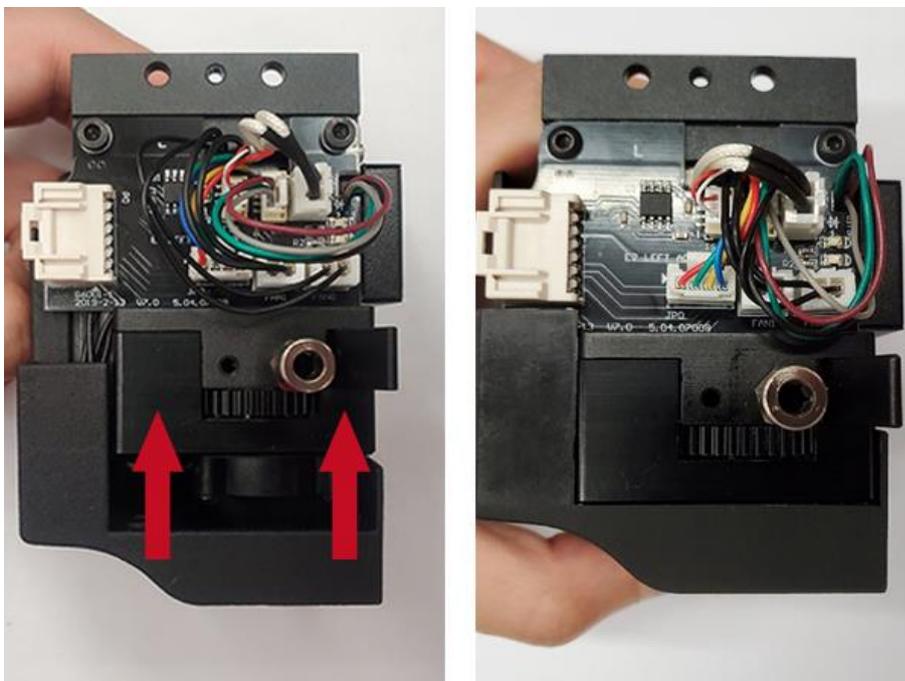


L-Print Head R-Print Head

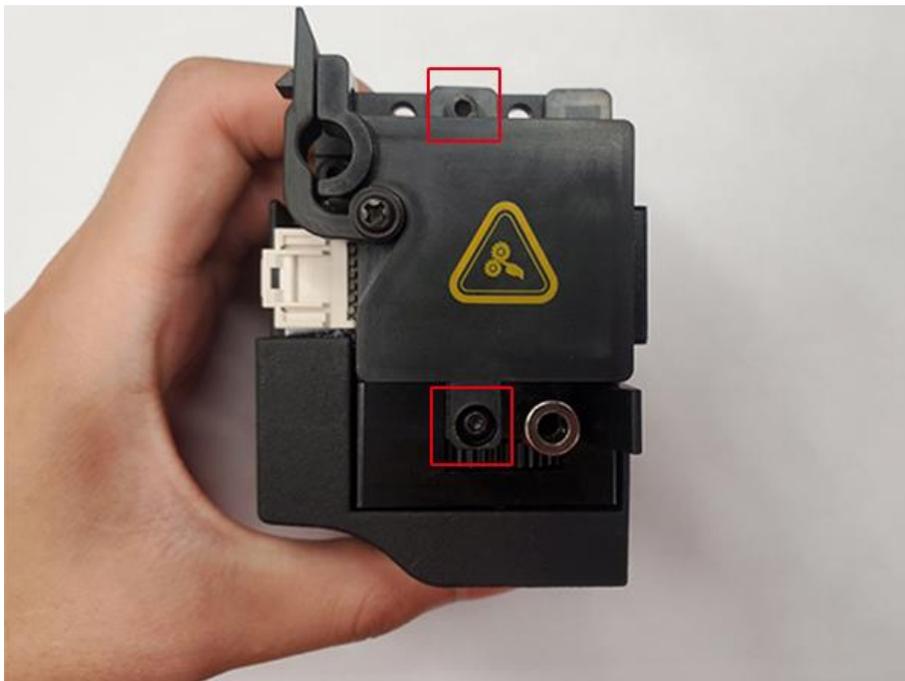
23. Reinstall the two screws with a 2mm hex wrench and fix the extruder connection board to the extruder.



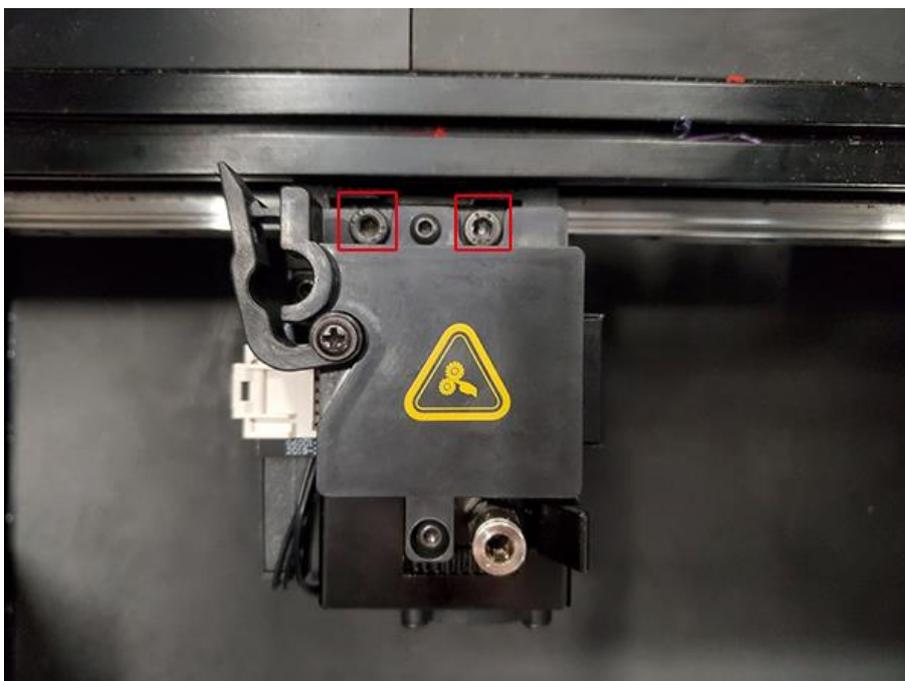
24. Put the front cover back to the extruder, and use the 2mm hex wrench to reinstall the two screws.



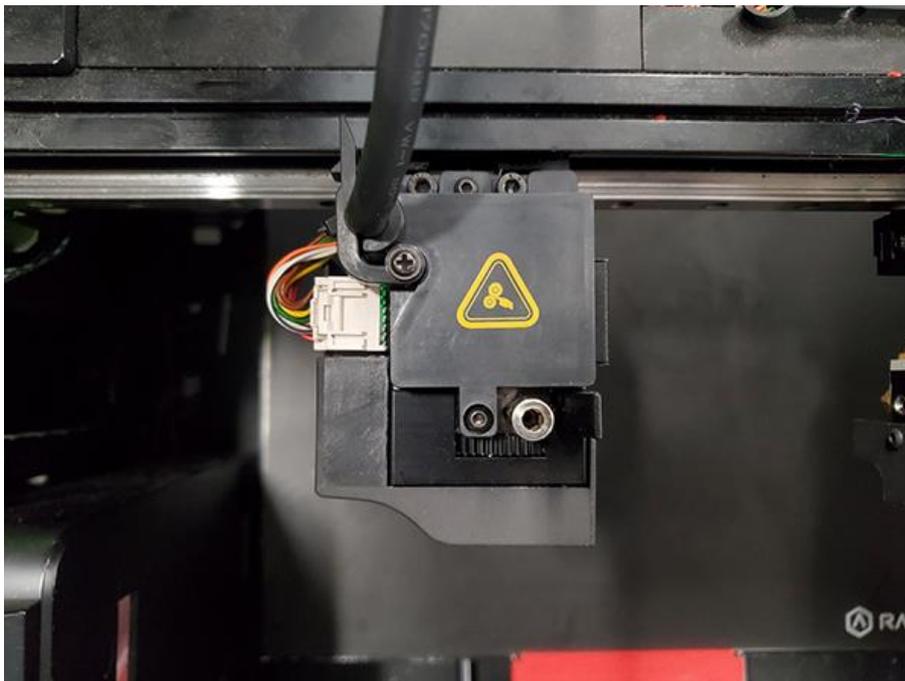
- 25. Put the extruder connection board cover back to the extruder, and use the 2mm hex wrench to reinstall the two screws.



- 26. Put the extruder back to the X-axis, and reinstall the two screws retaining the extruder on the X-axis.



- 27. Insert the extruder connection cable back into the extruder, and press the retaining buckle to hold the cable in place.



- 28. Turn on the printer and run the five-step wizard. It is recommended to adjust the height of the left and right nozzles as well. (For more information please refer to the tutorial: [Manual E2 – How to Adjust the Height of Left and Right Nozzle – V1.0](#)).

Note: You can find the “Offset Calibrations” at “Settings>Machine>Maintenance>Offset Calibration”.



– END –



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