How to replace ribbon cable to round cable of RF100?

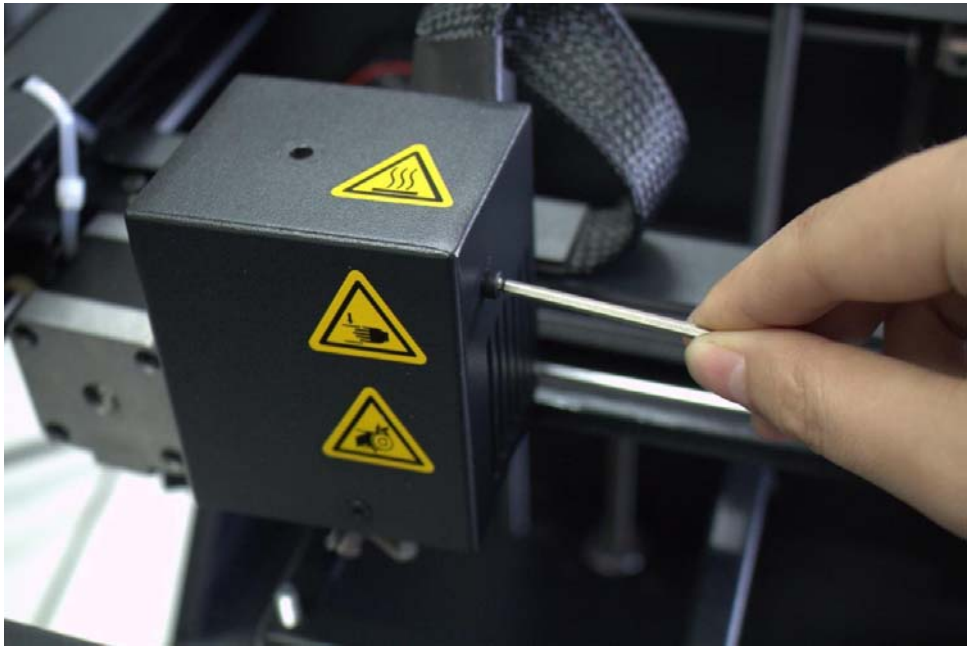
Delivery Content

- 1 x protective case
- 1 x L shape metal holder
- 1 x extruder cable with PCB board
- 3 x small R shape cable holders
- 1 x large R shape cable holder
- 2 x cable tie
- 1 x cable tidy tube
- 6 x screw ring
- 2 x M3*8 screw
- 6 x M3*6 screw

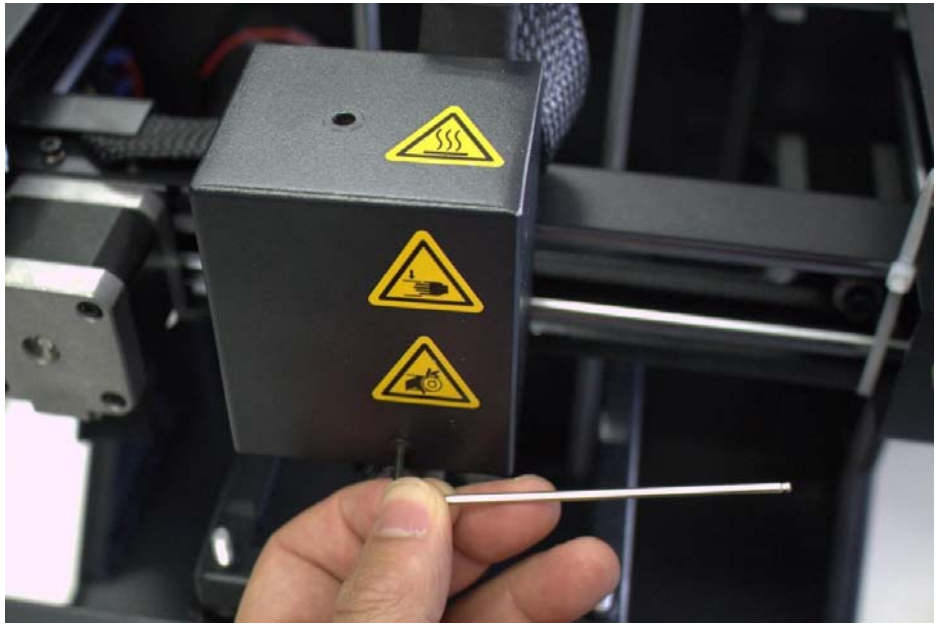
- Tool required for the work
- 2.5mm allen key included in RF100 printer
- 2.0mm allen key included in RF100 printer
- 3.0mm allen (not included)
- side cutter included in RF100 printer

- 1.Turn off the power of the printer.
- Add the hint that it is easier for the customer if the pirnt bed is closed to the printer buttom and customer has to remove the glas plate at the beginning.

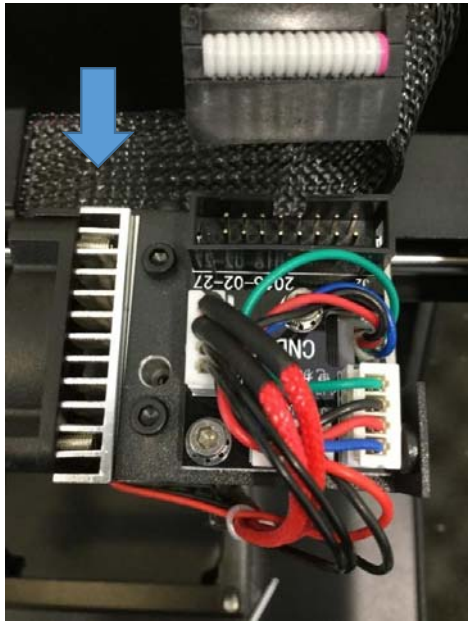
2.Remove the right screw on the metal cover by allen key 2.5



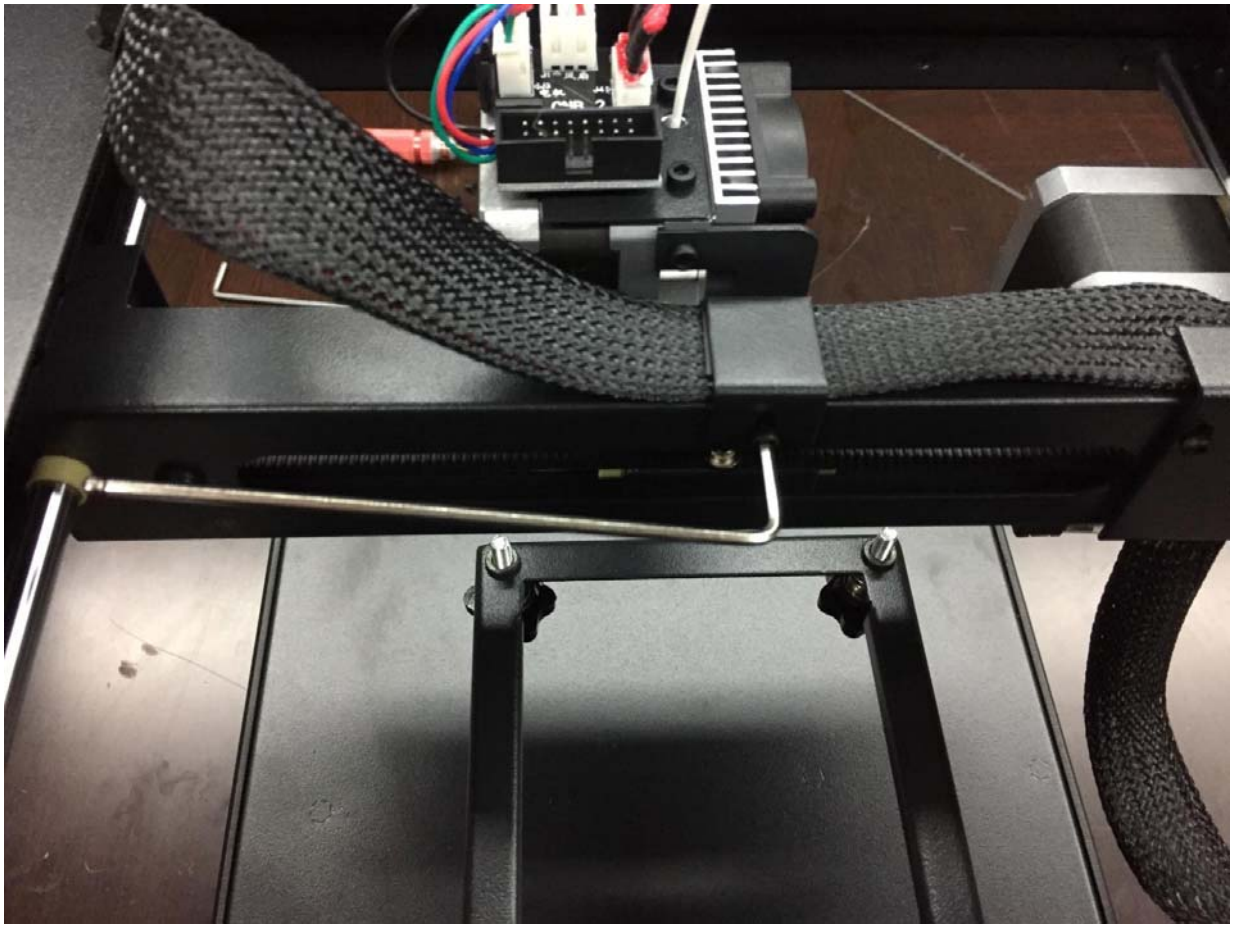
•3.Remove front screw on the metal cover by Allen Key 2.0



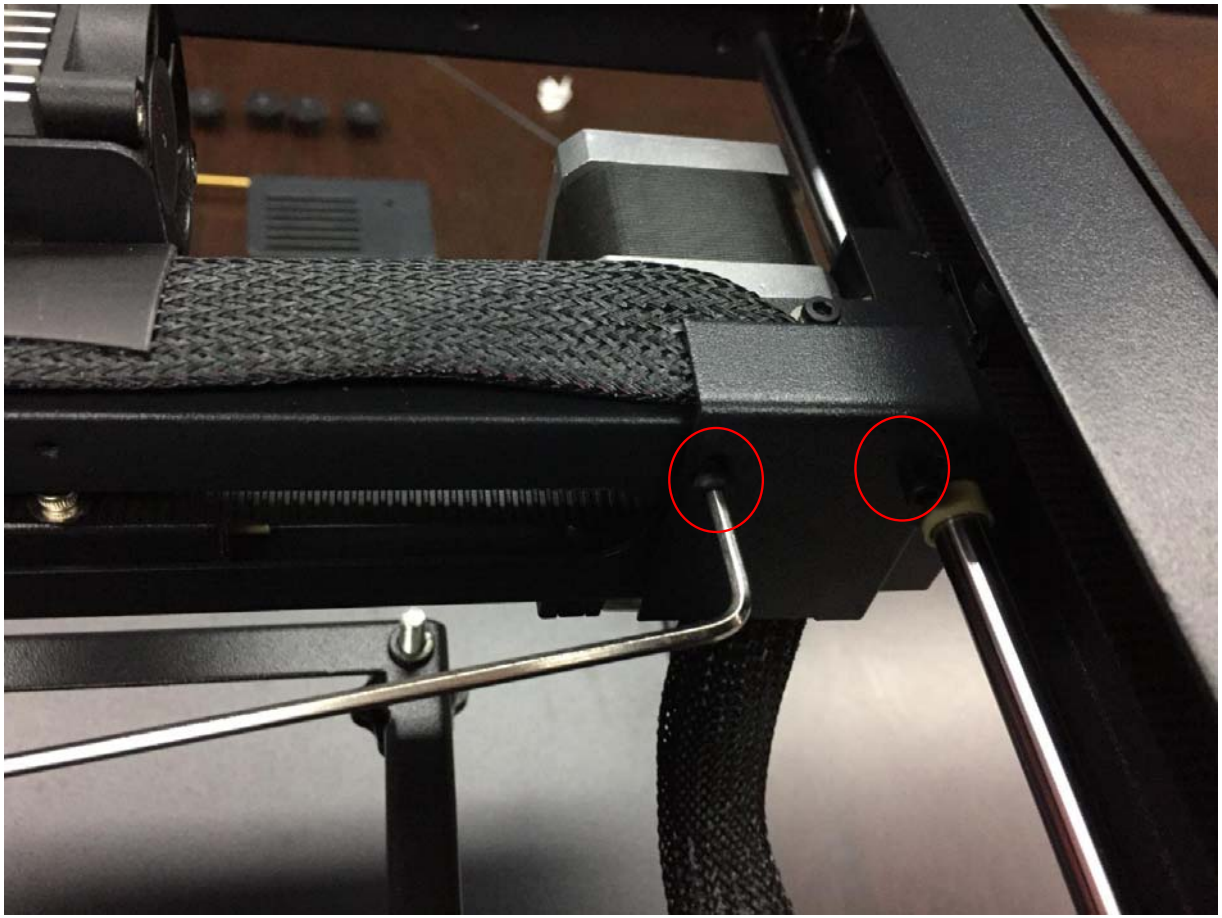
Unplug the ribbon cable from the Extruder.



- 4. Pull the extruder guide(X-axis) to the front
- Remove the metal bracket 01 by allen key 2.5mm.



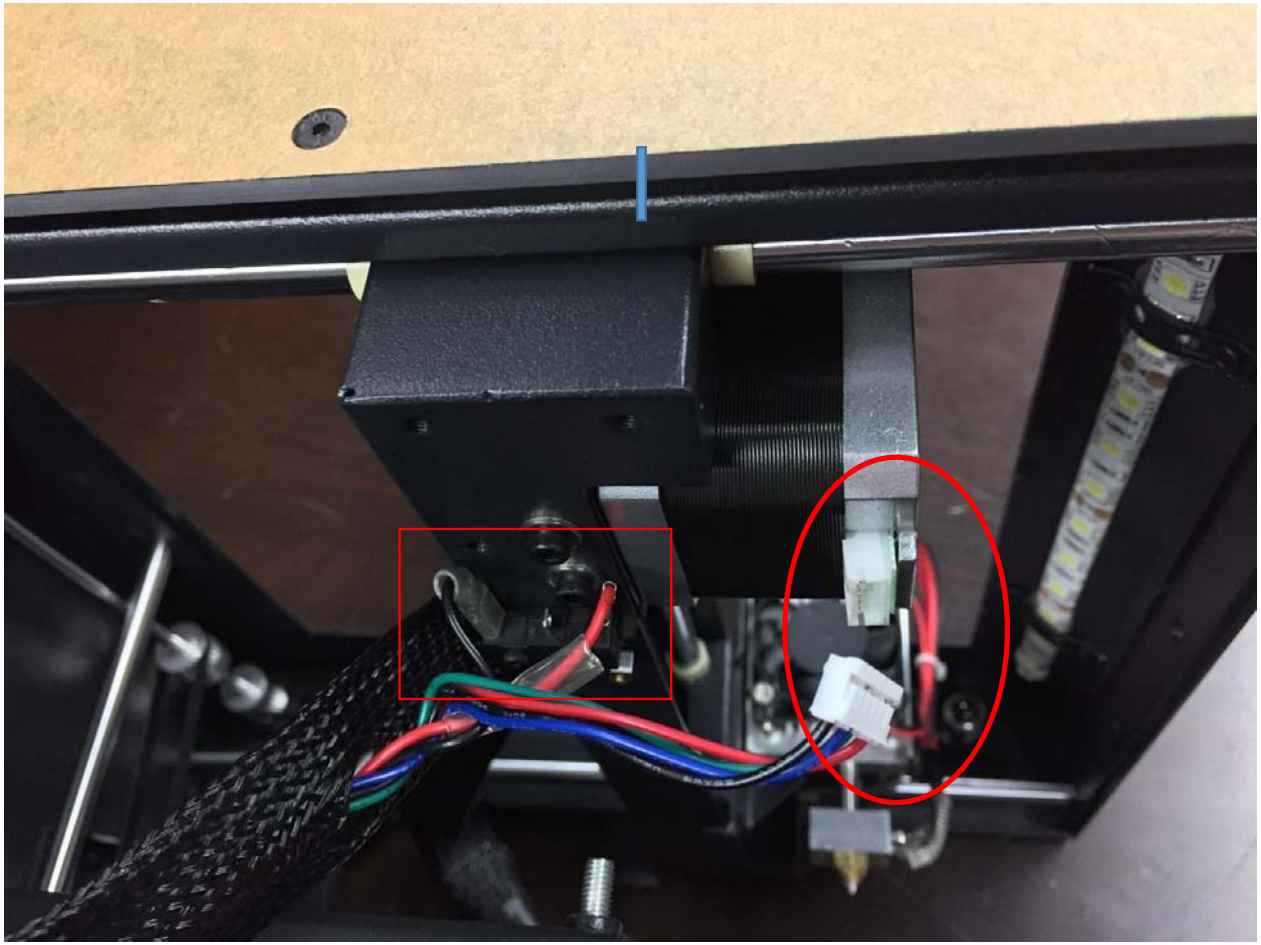
•5.Remove the metal bracket 02 by allen key 2.5mm



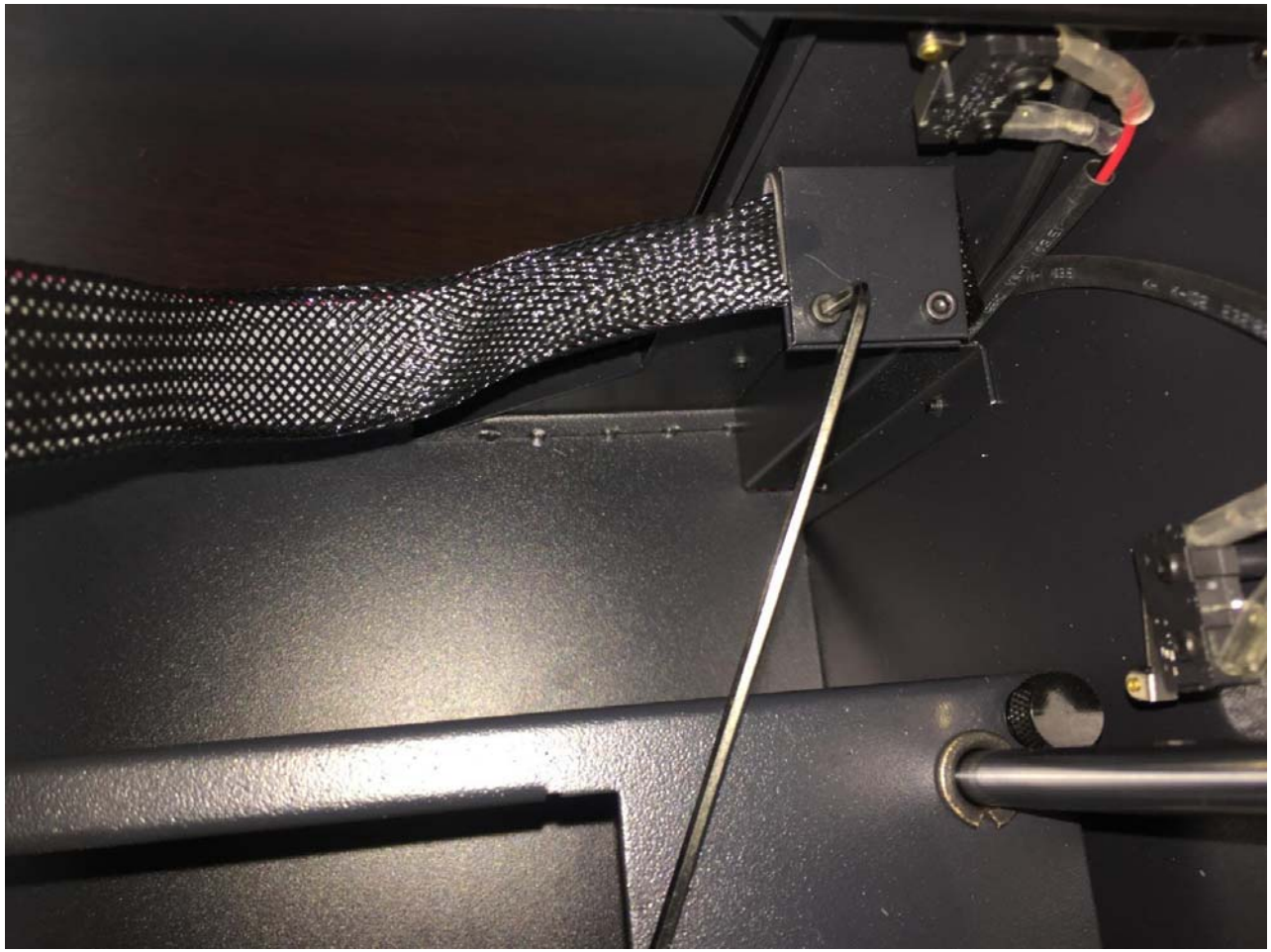
•6. Put the 3D printer to the side

•Remove the terminal from the X-axis motor. (circled)

Attention: Please don`t remove the limit switch cable from X-axis (square)



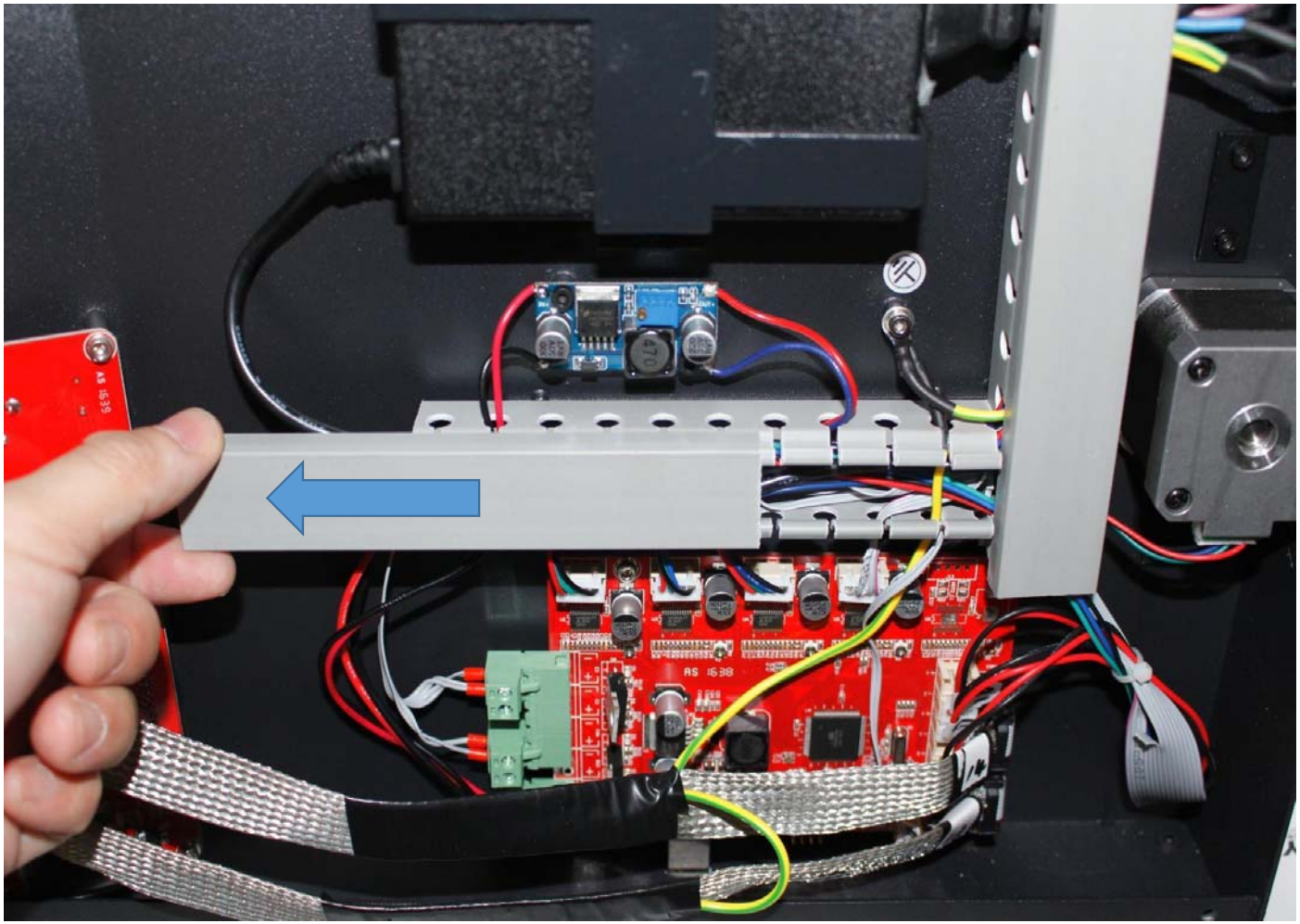
- 7. Put the printer back to normal position
- Remove the metal plate 03 by allen key 2.5mm



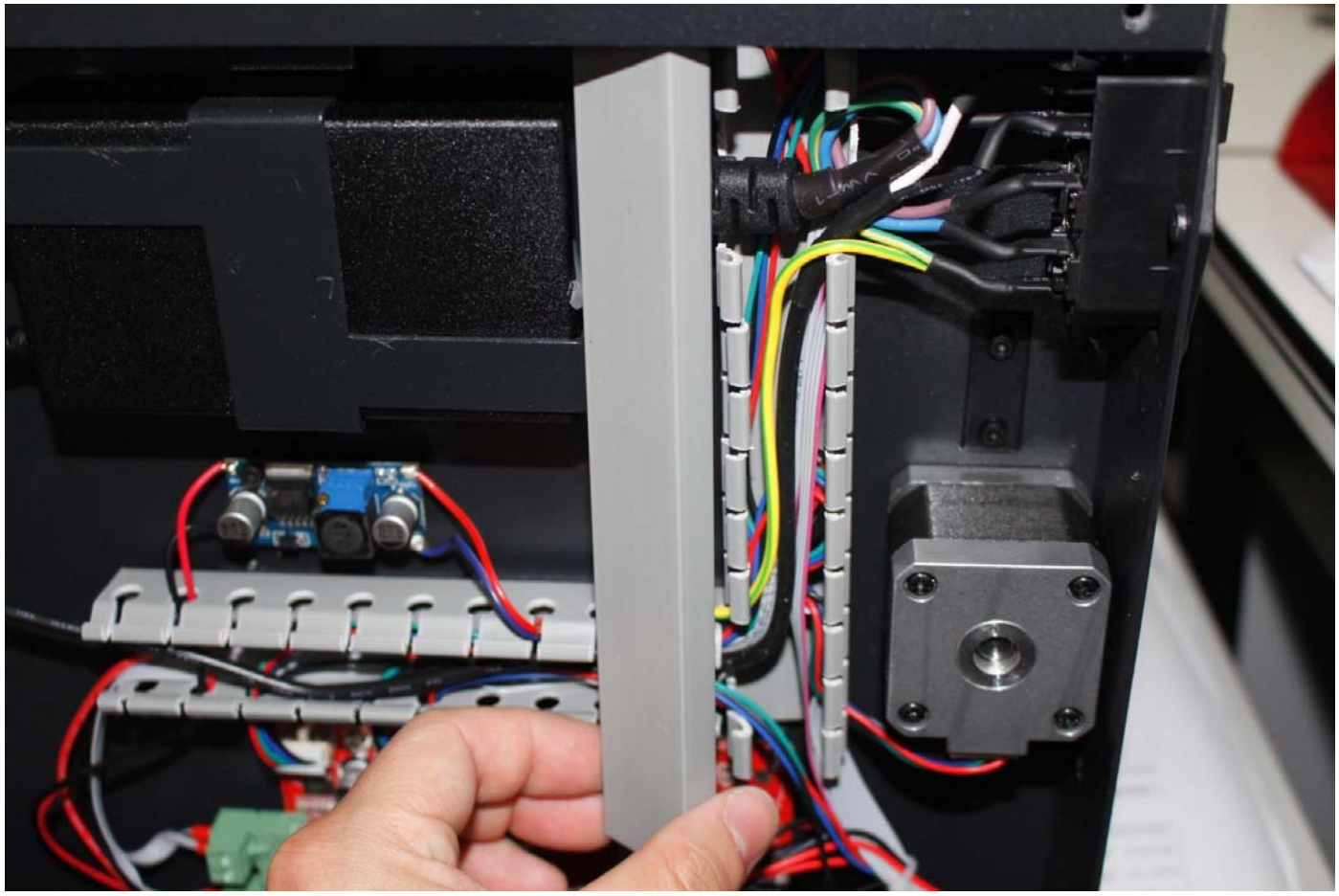
•8. Lay the RF100 3D printerand then lossen 4 bottom screws with rubber feet by allen key 3.0mm.

•9. Put the 3D printer upside down
•Cut off the cable tie from the ribbon cable by side cutter.

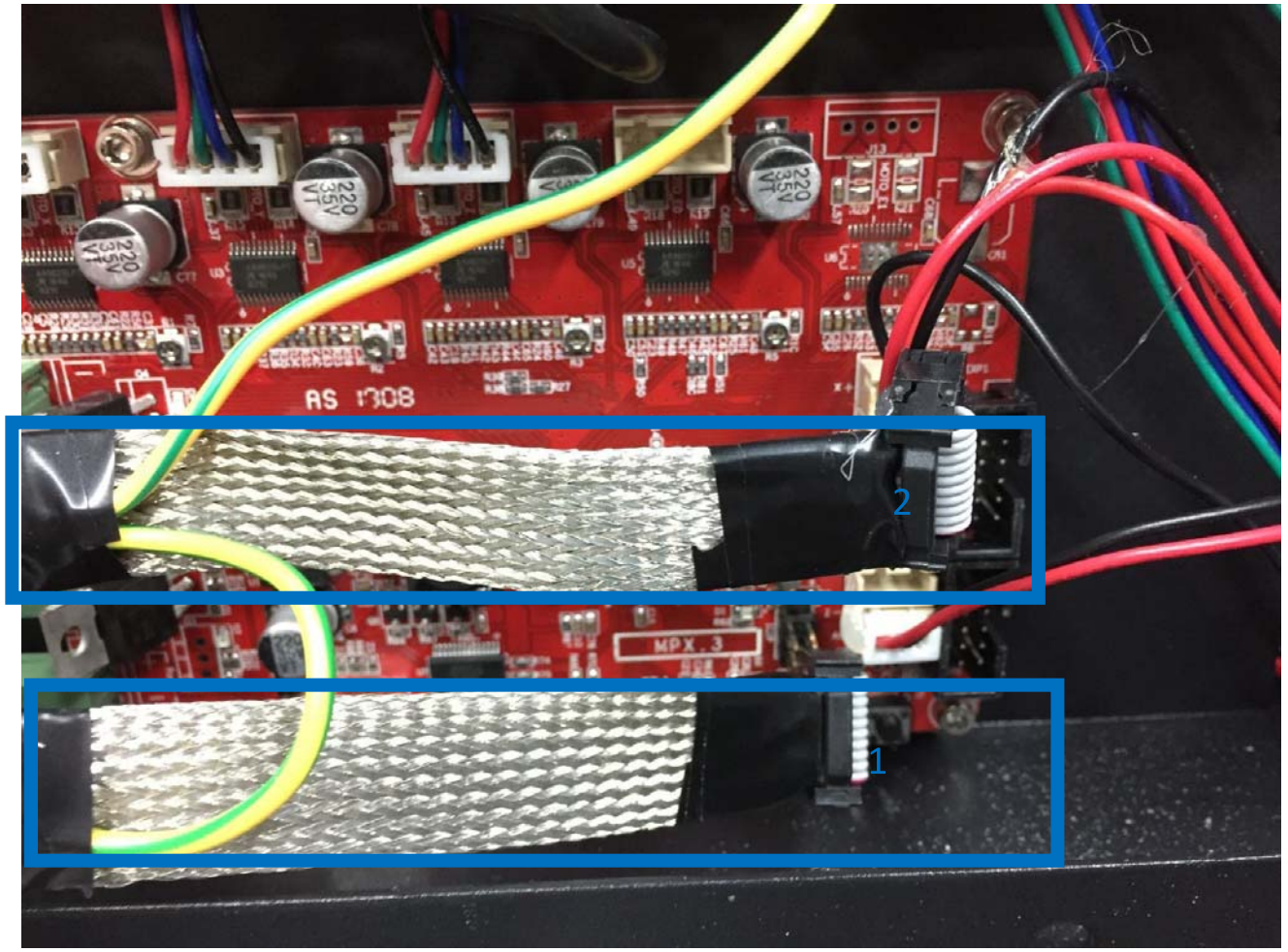
•10. Remove the first cable cover（01）by pull



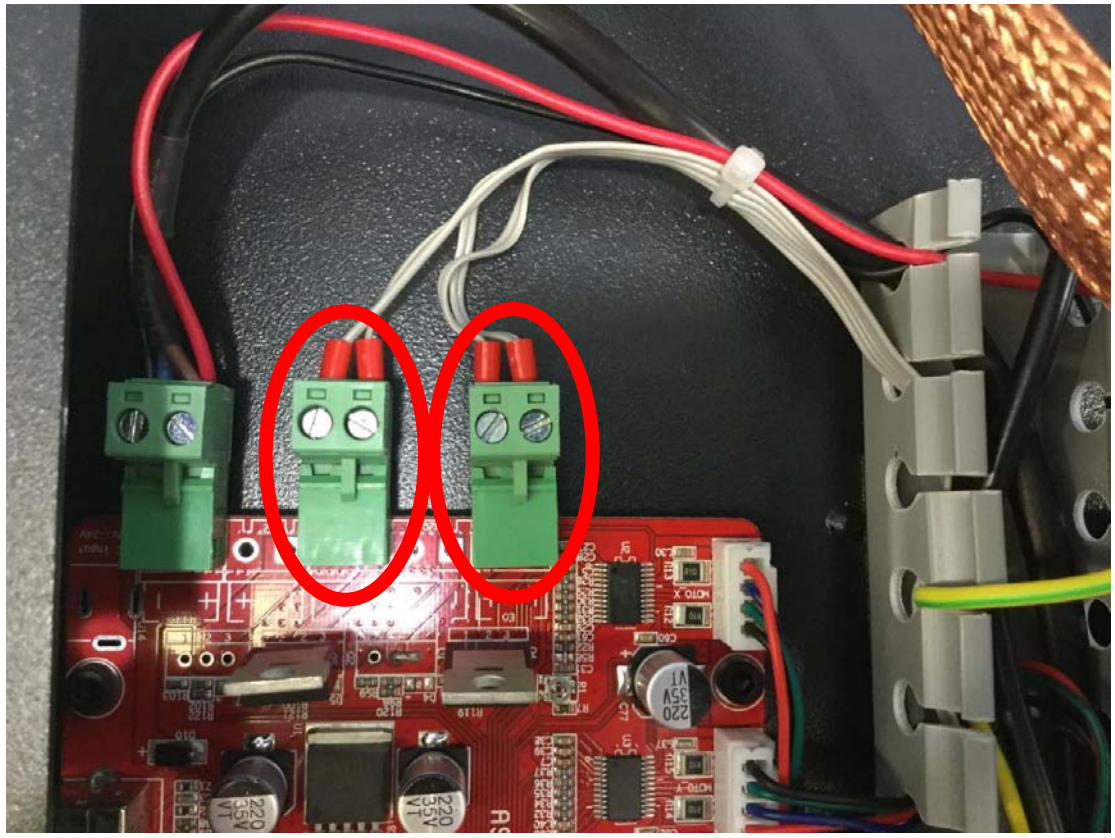
•11. Remove the second cable cover（02）



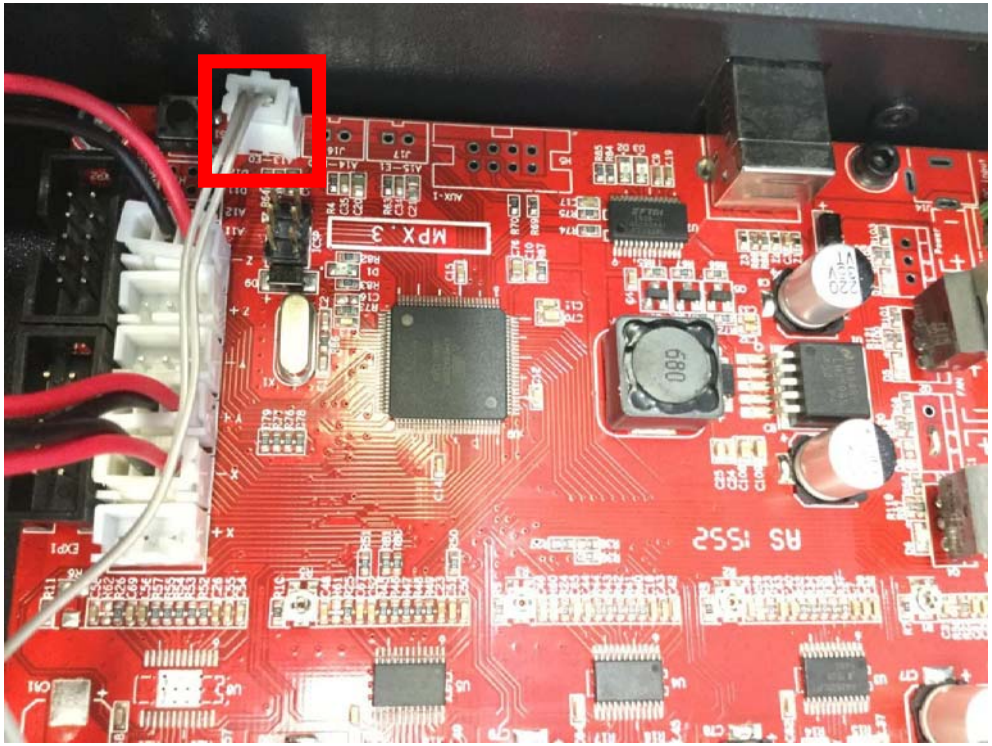
•15. Remove display PCB 01 and display PCB 02 cable .



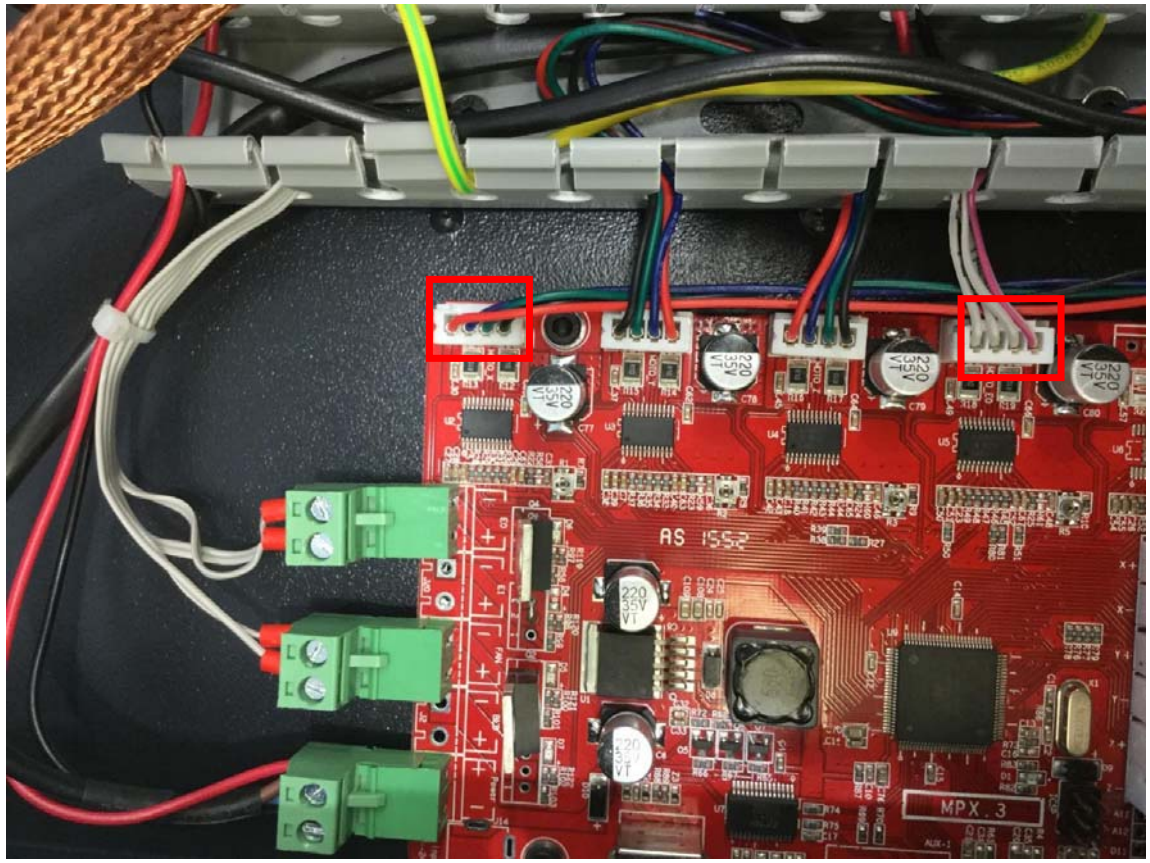
•12. plug off the 2x heating port and fan power cable from the terminal.



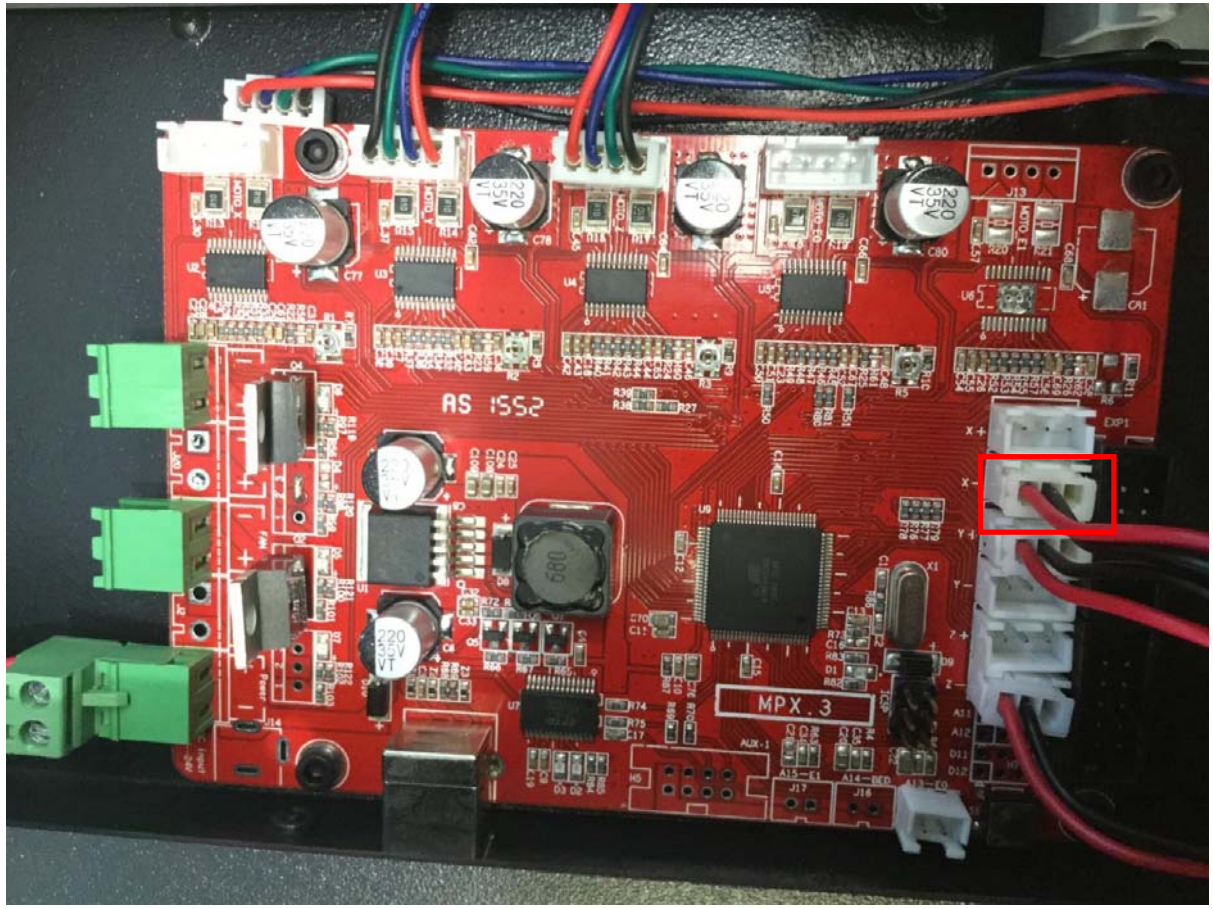
•13.Remove the thermistors cable from the terminal.



•14.Remove extruder & X-axis motor power cable from the terminal.

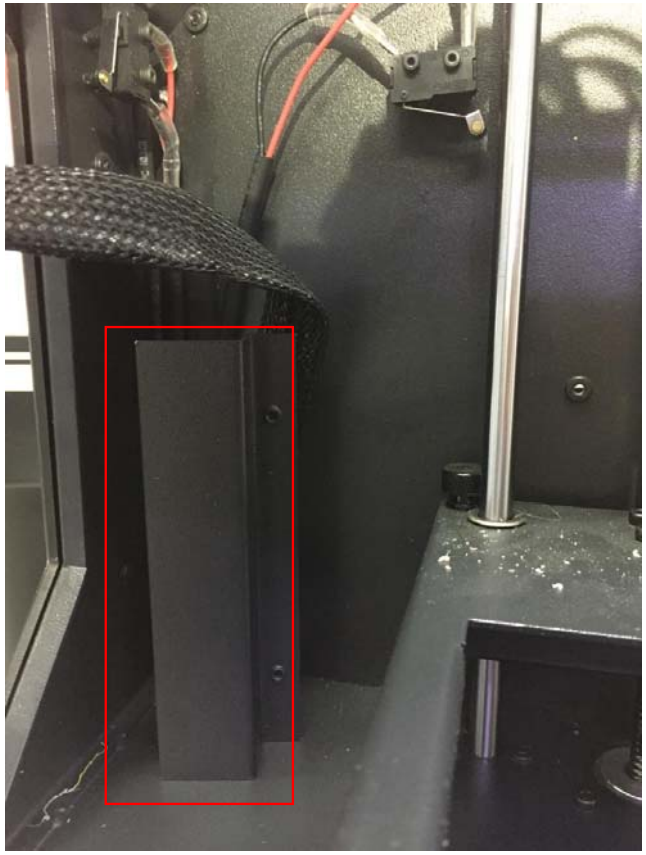


•17. plug off X-axis limit switch cable from the terminal.



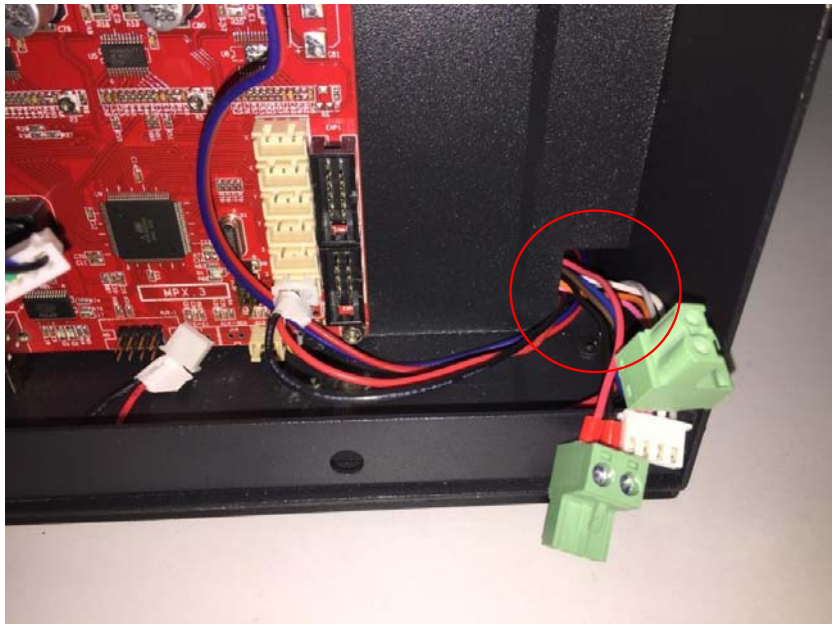
18.

Unscrew the 2x screw in the back machine by allen key 2.5mm. Change position of the 3d printer: put it onto his back and then remove the cable protector inside the 3 d printer (Lisas comment, first remove screws n the back IN ORDER to remove the cable protector in the front)

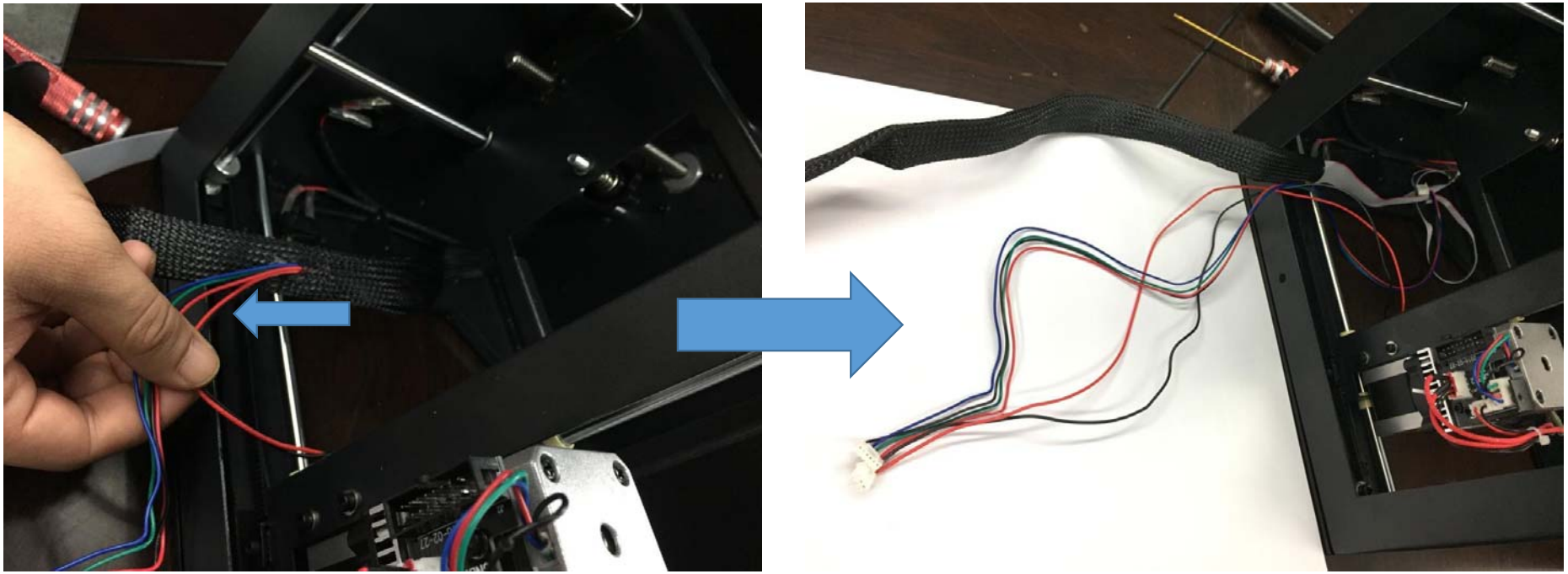


19.Cut the grid tape by side cutter (insde the 3 D printer), pat attention not to cut the cable

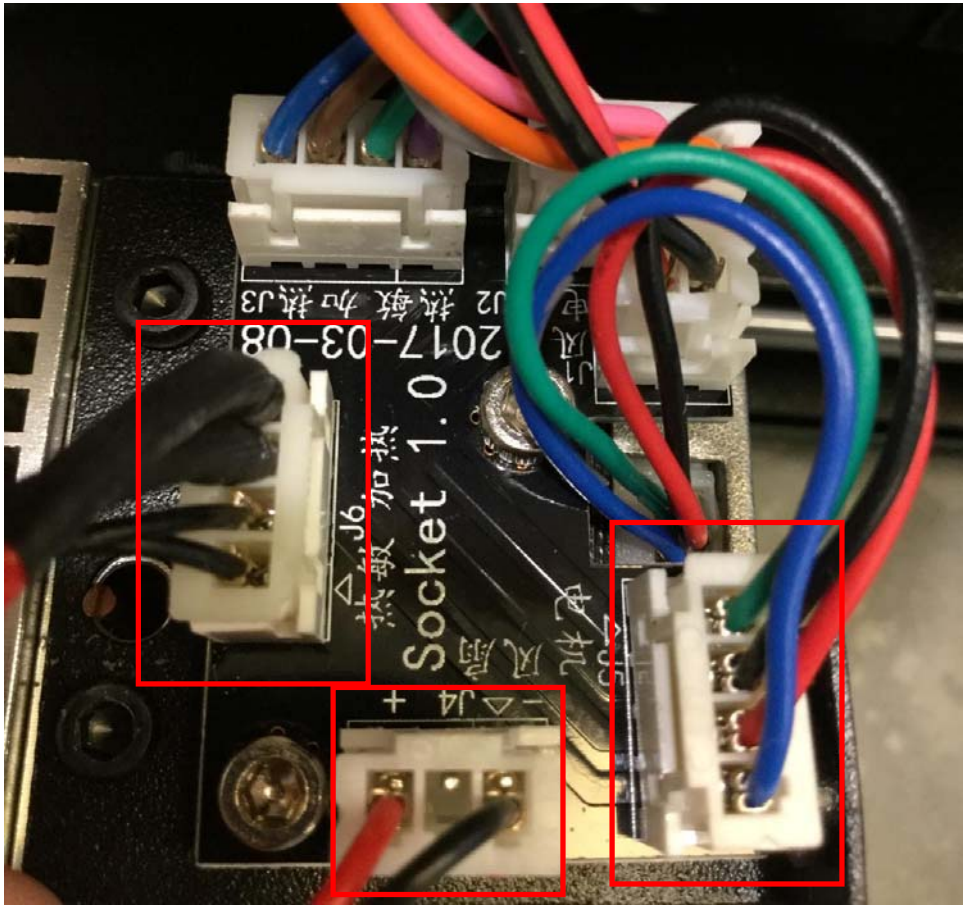
20.Pull the ribbon cable and cables out from the bottom (back) of printer through the opening carefully, so other cables are not damaged. ATTENTION the terminal only fits through the hole one by one



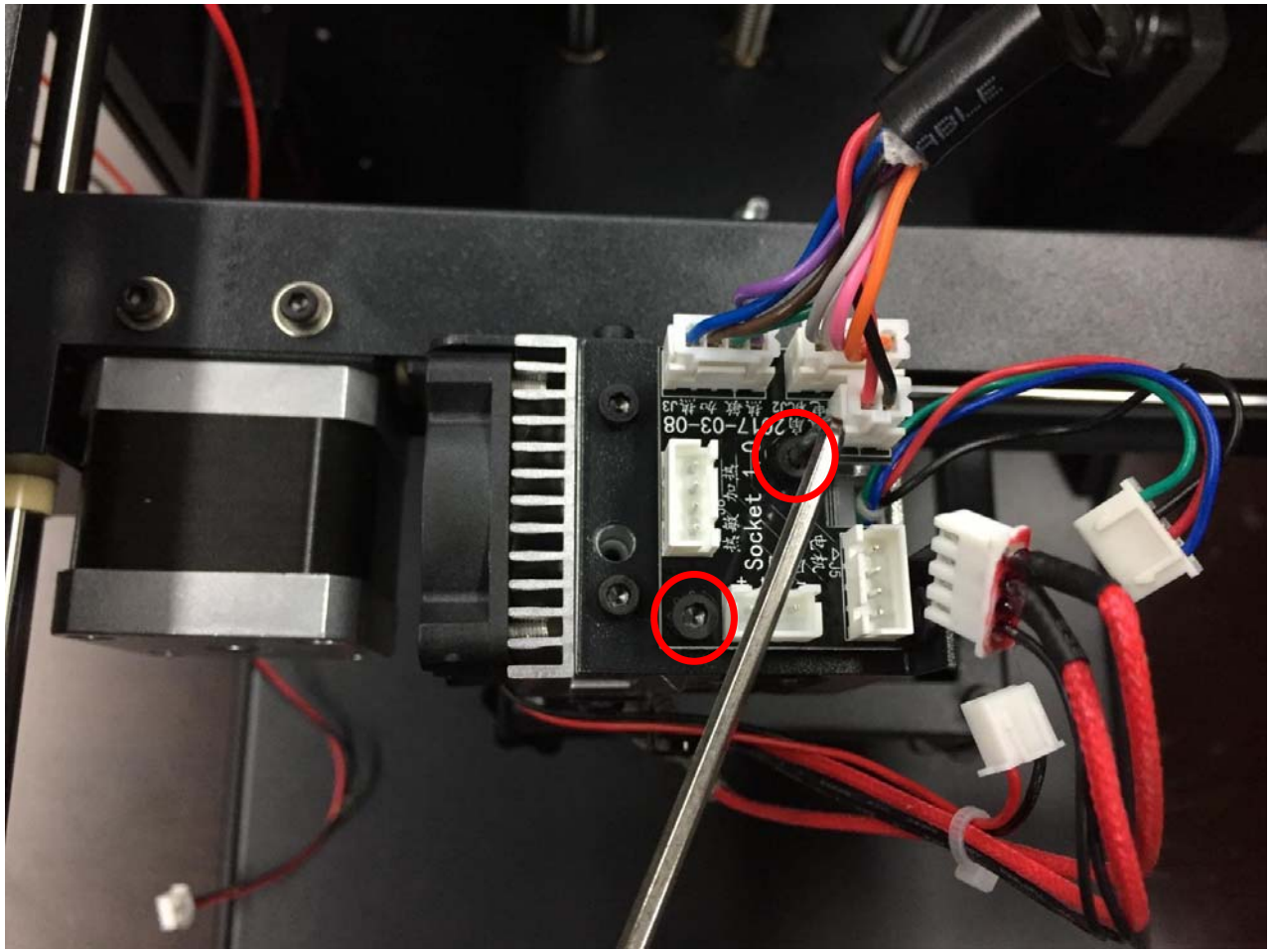
•21. Pull the X-axis motor cable and limit switch cable out of the nylon sleeve. .
(SR20170621 pull out te cables out from ribbon cable carefully. One side is still connected to motor)



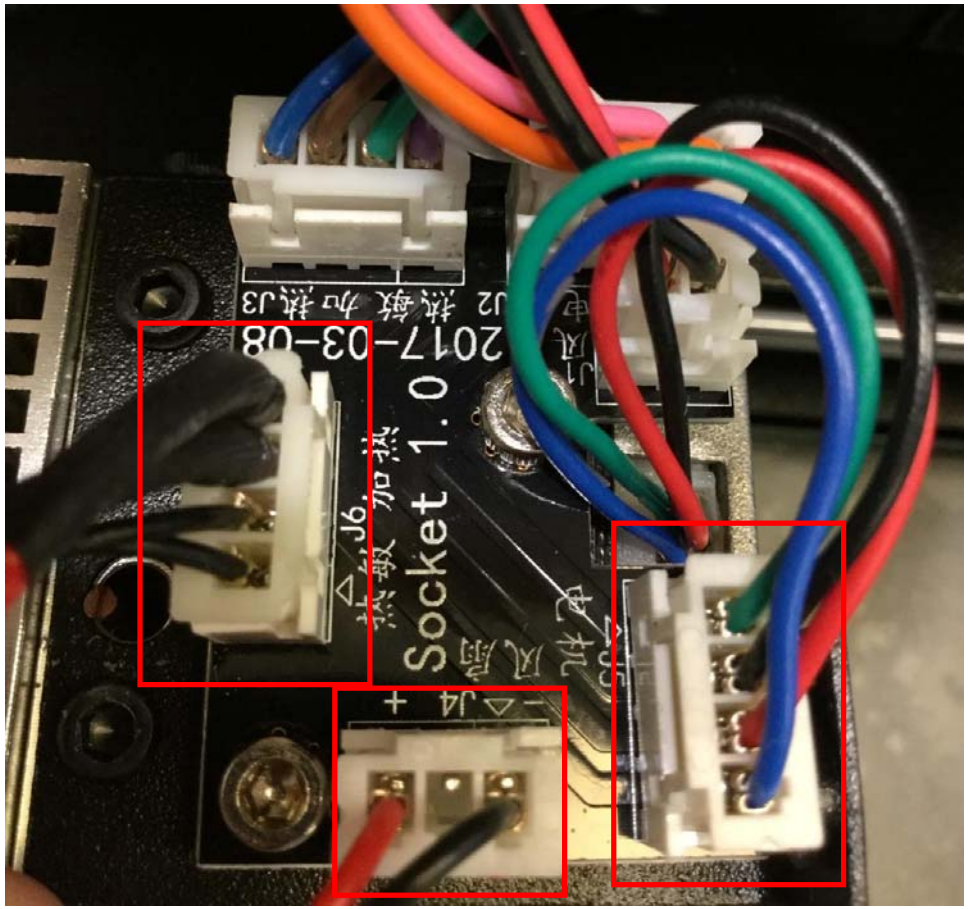
Unplug the 3 connector as illustrated



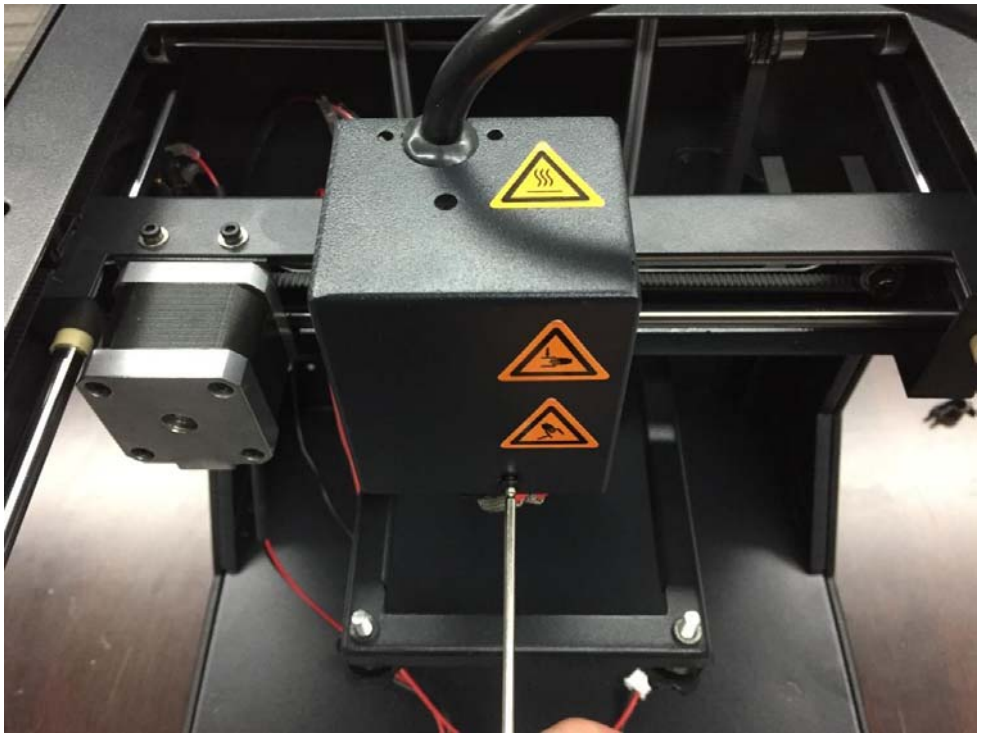
•22 unscrew (screw size needed) and remove the old exturder PCB from Extruder unit.
Replace this with the new round cable PCB Fix the new pcb with 2 screws by allen key 2.5mm.
Screw photos needed

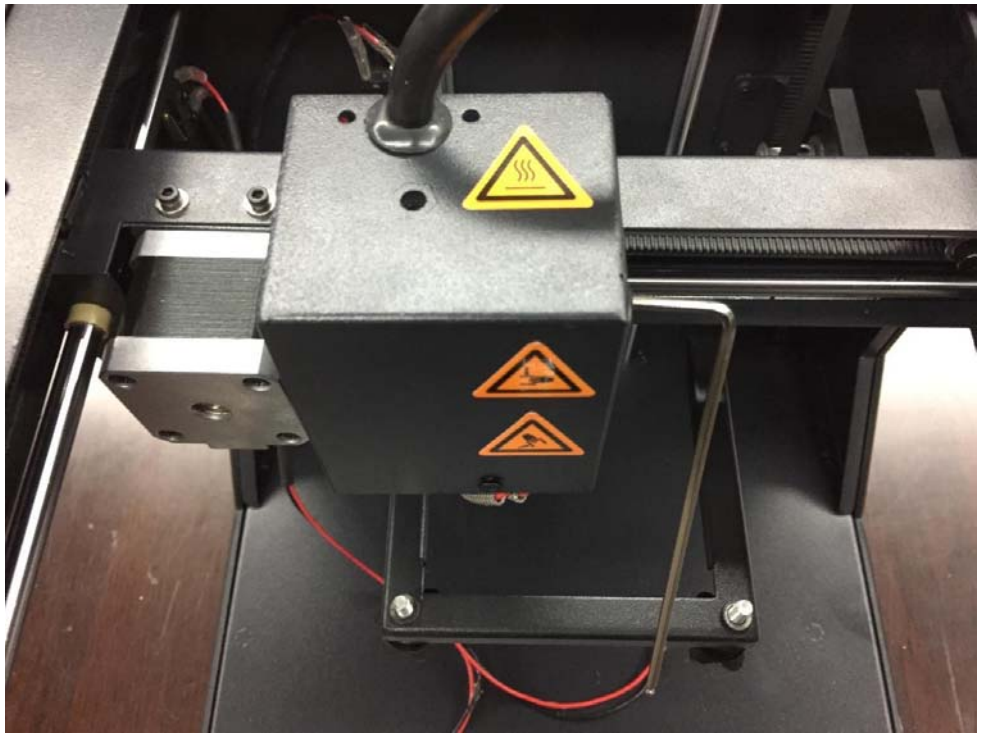


•23. Plug the connector removed in (previous 2 steps) to the new PCB. Correct connection as shown below.

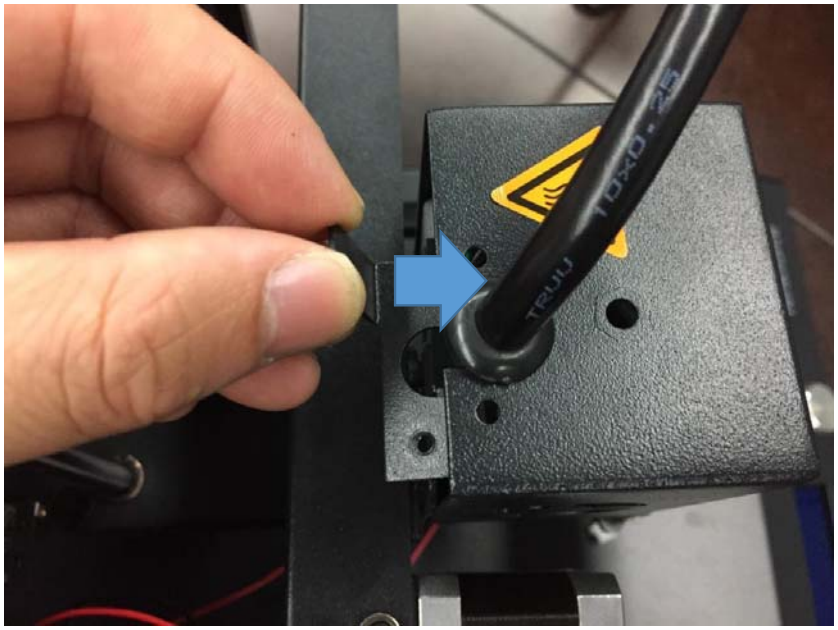


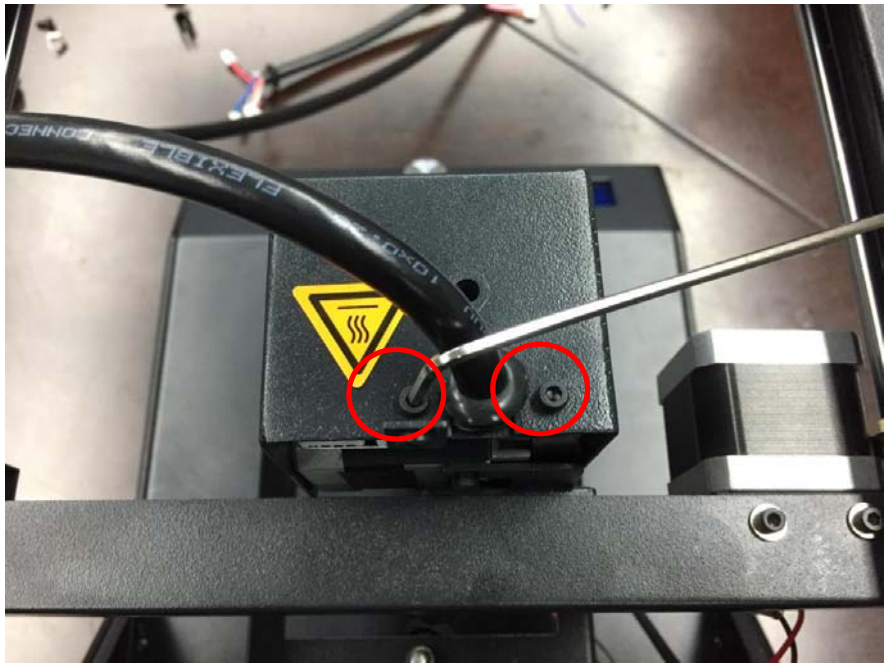
•24. Put the new metal cover back to exturder unit and tighten the screws by Allen Key 2.0mm and Allen Key 2.5mm. (Lisa's additional comment: Slice in the extruder cove between the rubbe fixture of the new cable)(new photo to be added)





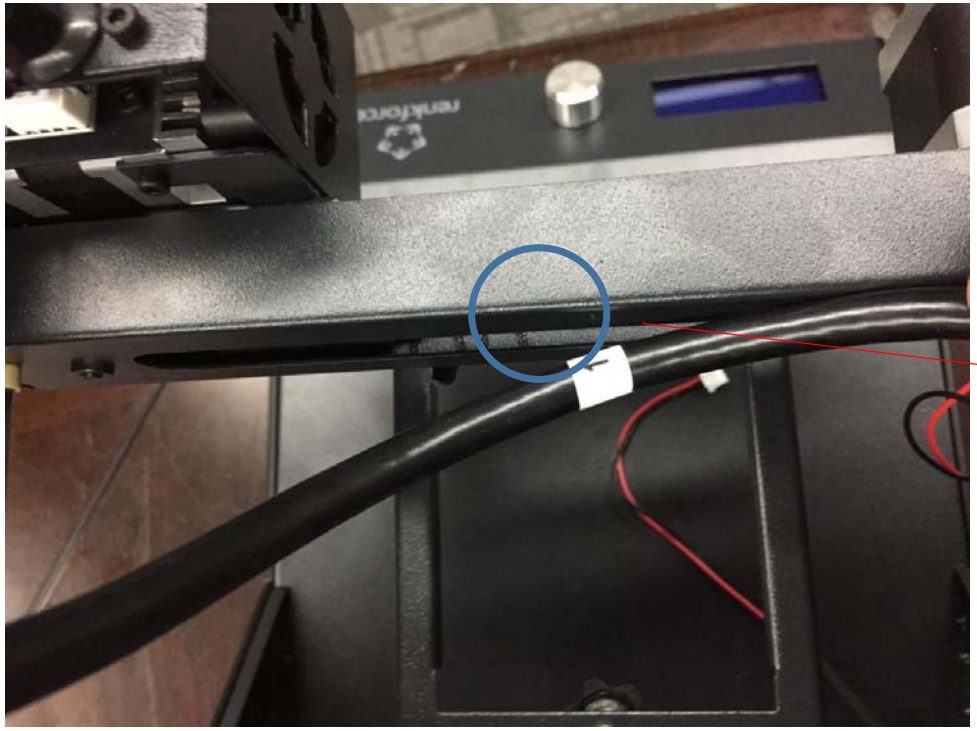
•25.Place the L shape metal stand (Lisa: spare part of the cable set) to extruder cover and tighten the two M3*6 screws (Lisa: = part of the cable set) by allen key 2.5mm.

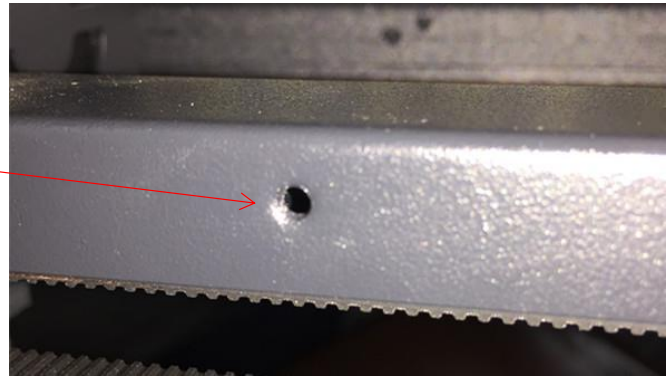




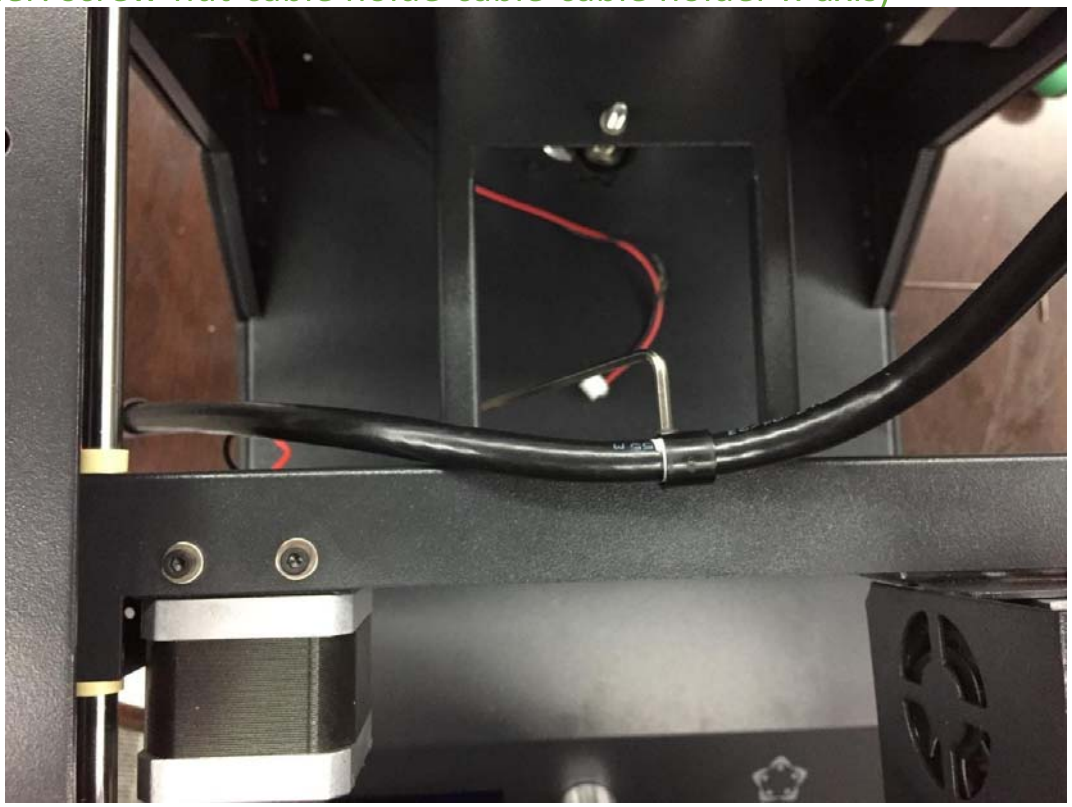
•26. Fix cable holder 01 with M3*8 screw and nut on cover stand by allen key 2.5mm.

•27. Place the part of the cable with sticker (Mark NO.1) to the middle of X-axis frame hole.

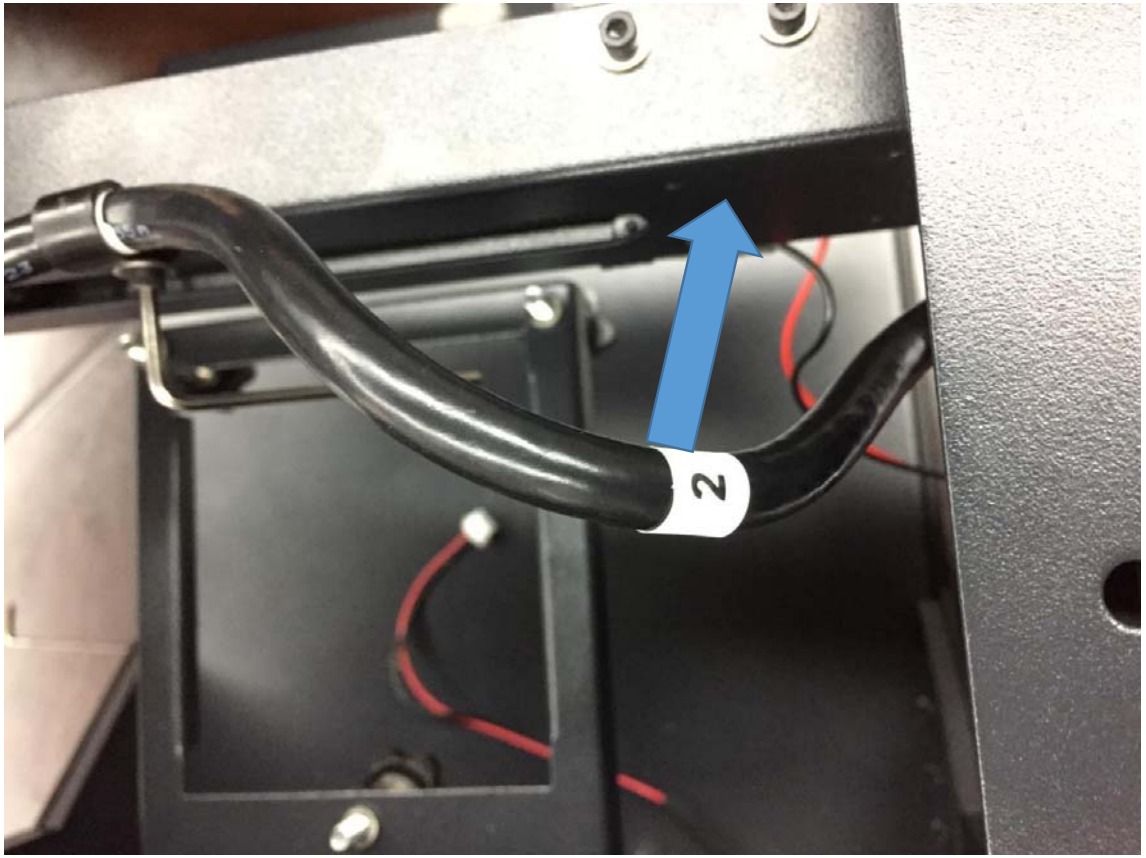


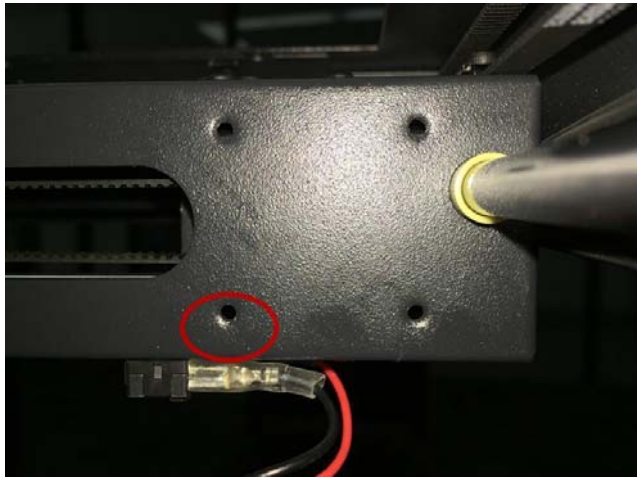


•28. Then use the cable holder 01 and M3*6 screw and washer to fix on the middle of X-axis frame hole.(Lisa: fix the part of cable 1 with the cable holder to the middle of the x –axis. For this place the cable between the cable holder. Order: screw-nut-cable holde-cable-cable holder-x-axis)



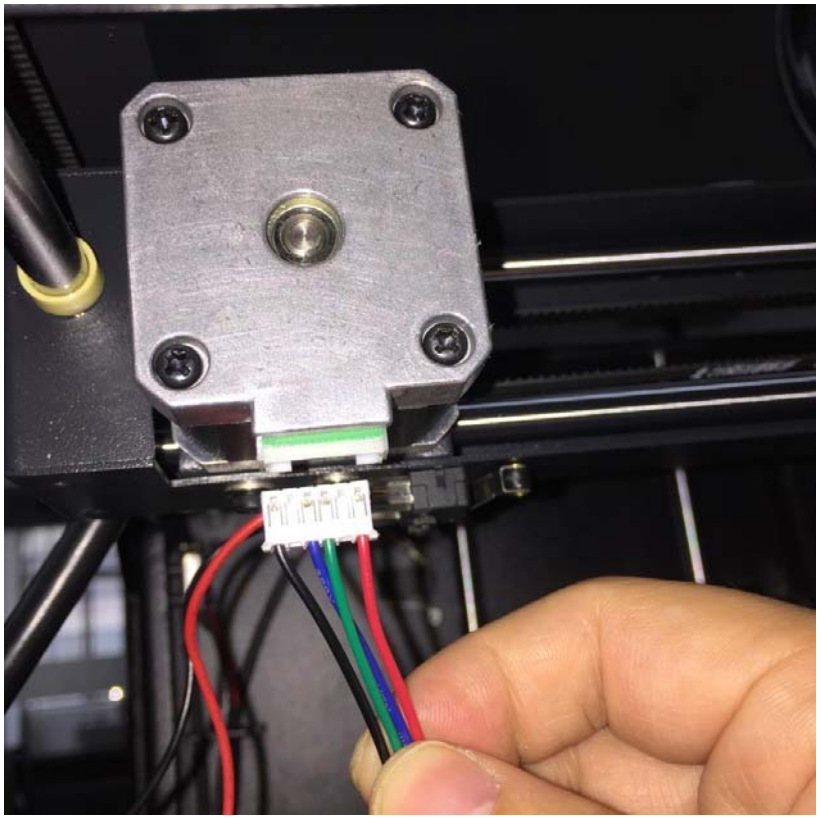
•29. Place-cable with sticker (Mark NO.2) to reference place(Red mark) at the x axis.

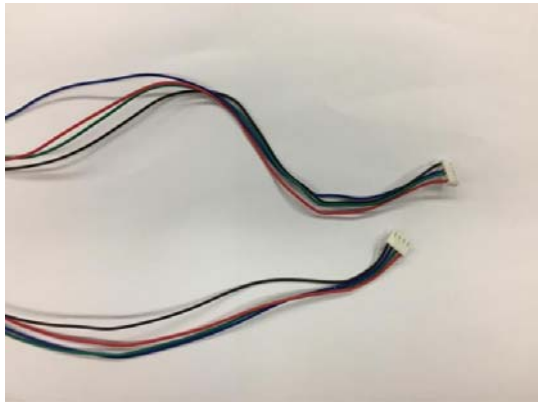


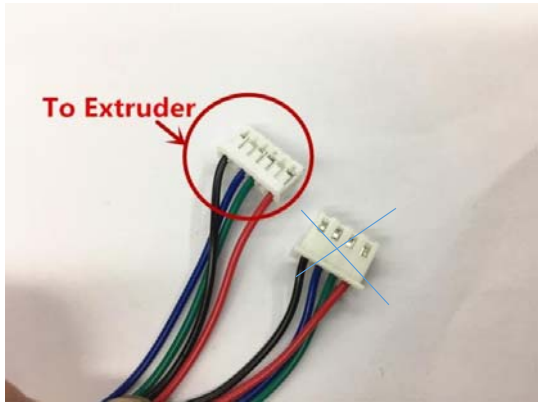


•30. Use cable holder 01 and M3*8 screw and washer to fix on the hole. (90 degree angle)

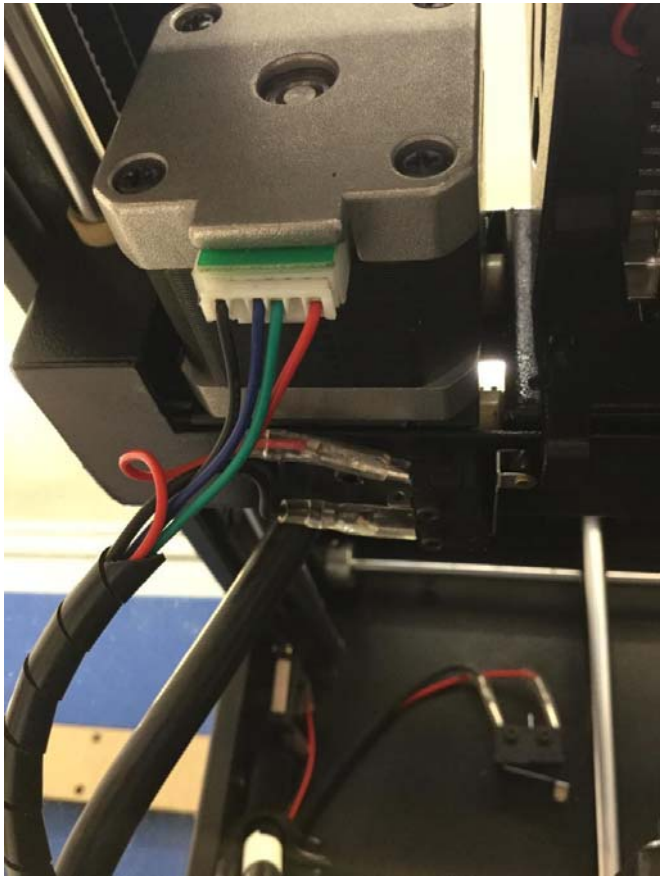
•31. Reinstall the cable to the X-axis motor .
(Attention: Pls do not exchange the X-axis motor cable and extruder cable , please find the image as reference.)



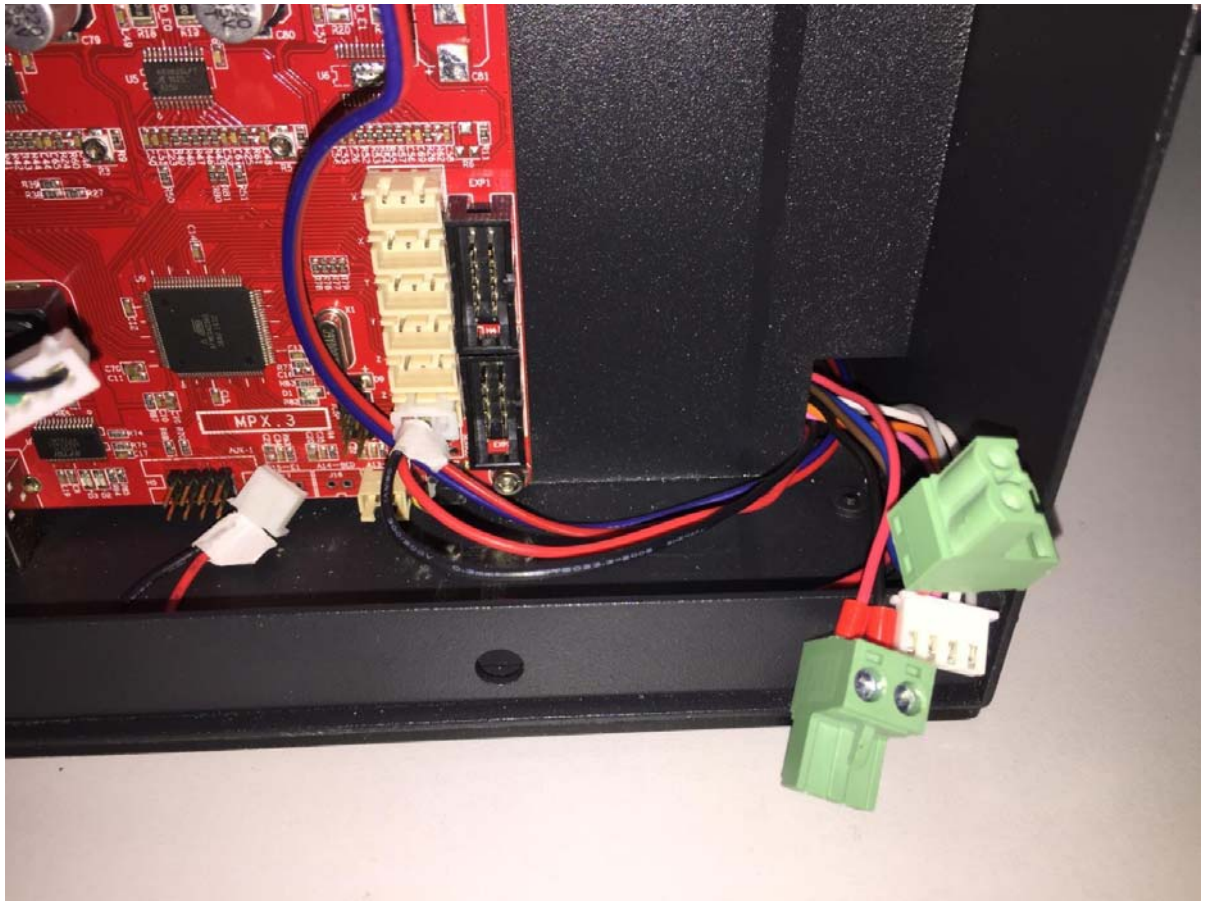




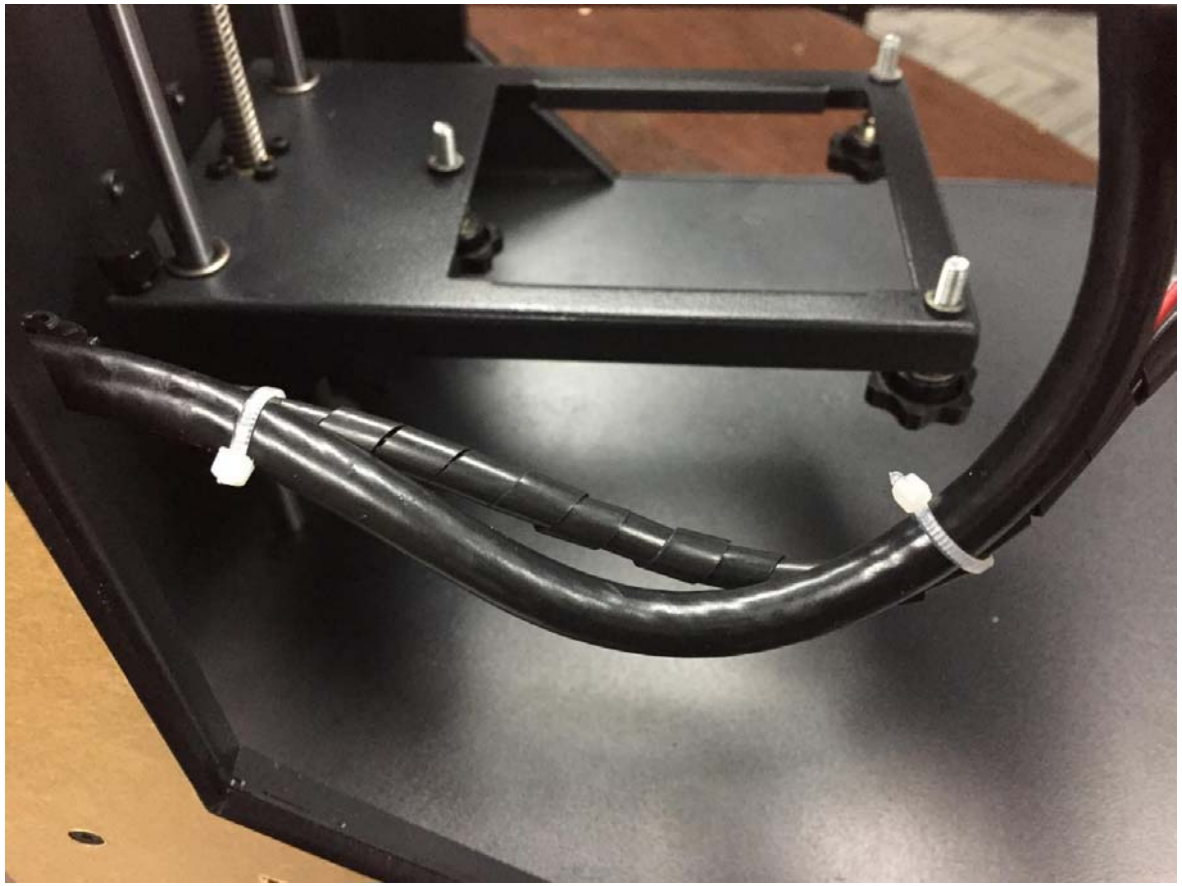
•32. Use spiral twined pipes to wrap up X-axis power cable and Limit switch of X axis cable. (need to revise photo) in total 6pcs



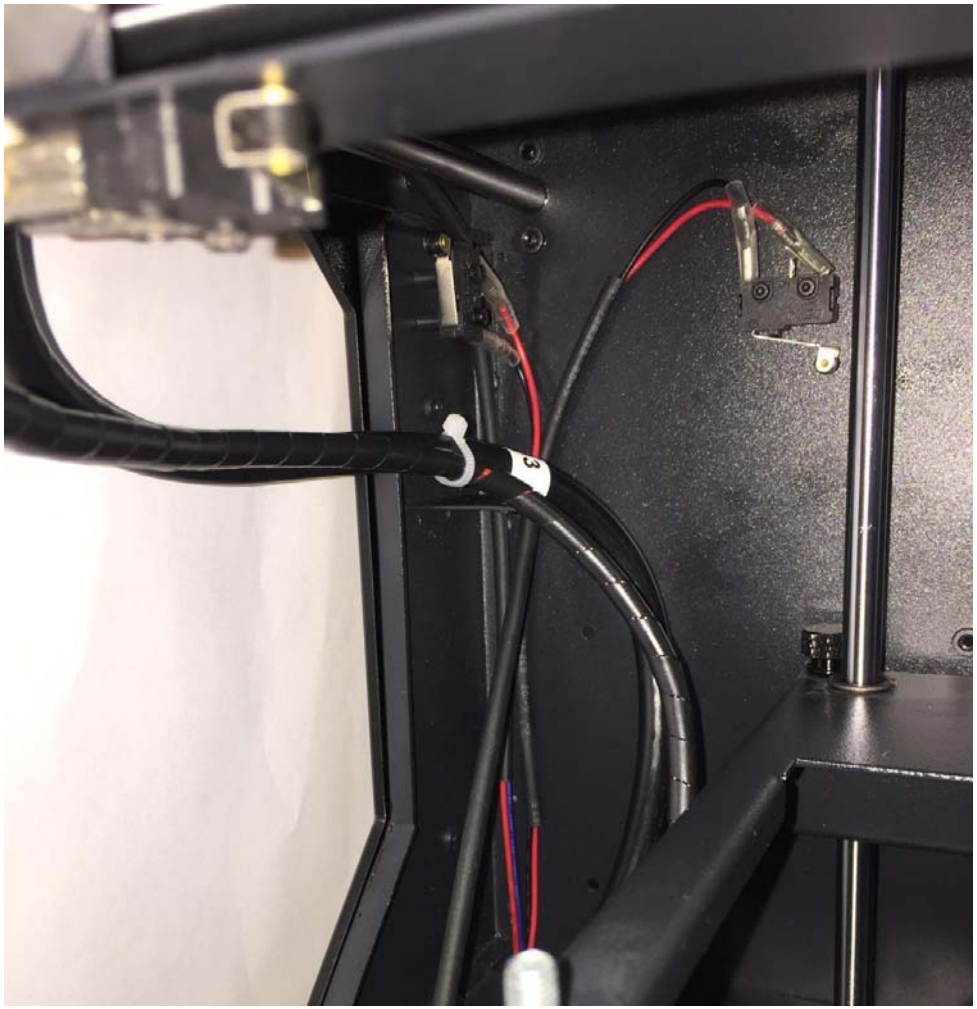
33.Pull all the connector back to bottom of RF100



•34. Use cable ties and fix both cables as shown in the picture.and cut off the remaining part.

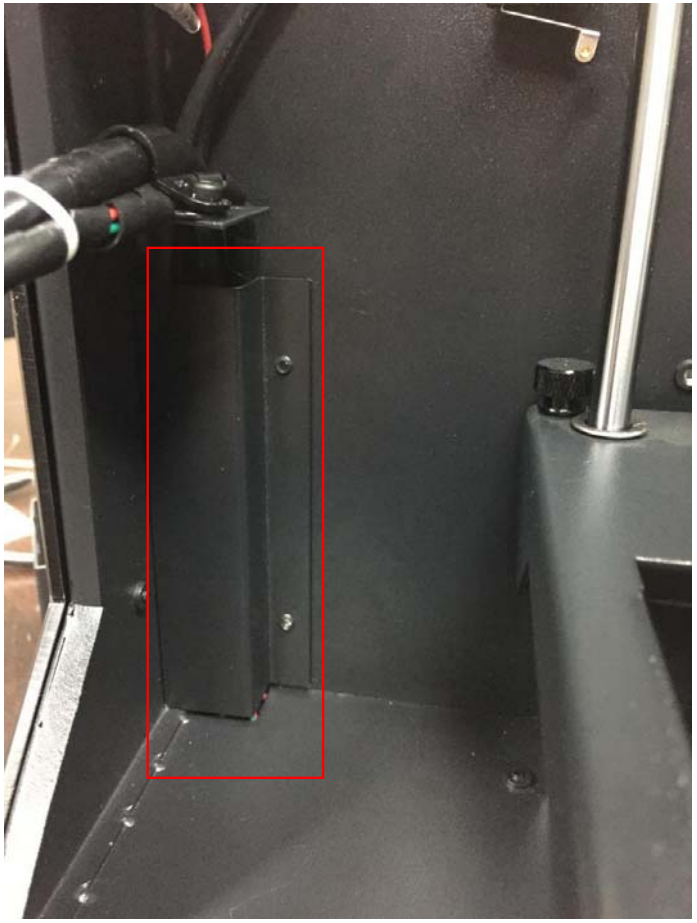


•36. Place cable that sticker 03 will fit to the reference position as shown in the picture (left frame/ left side of build bed) .

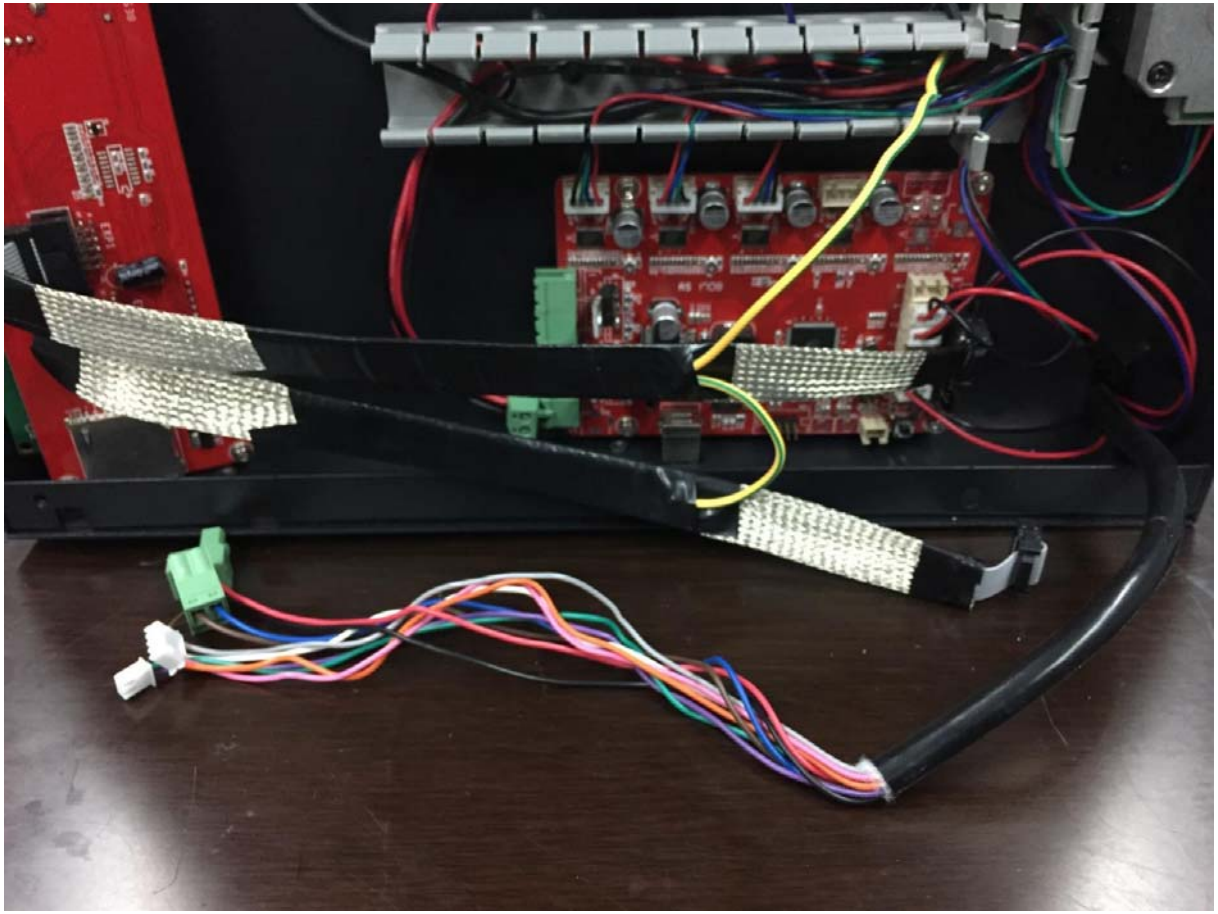


•37. Use cable holder 02 and M3*8 screw and washer to fix.

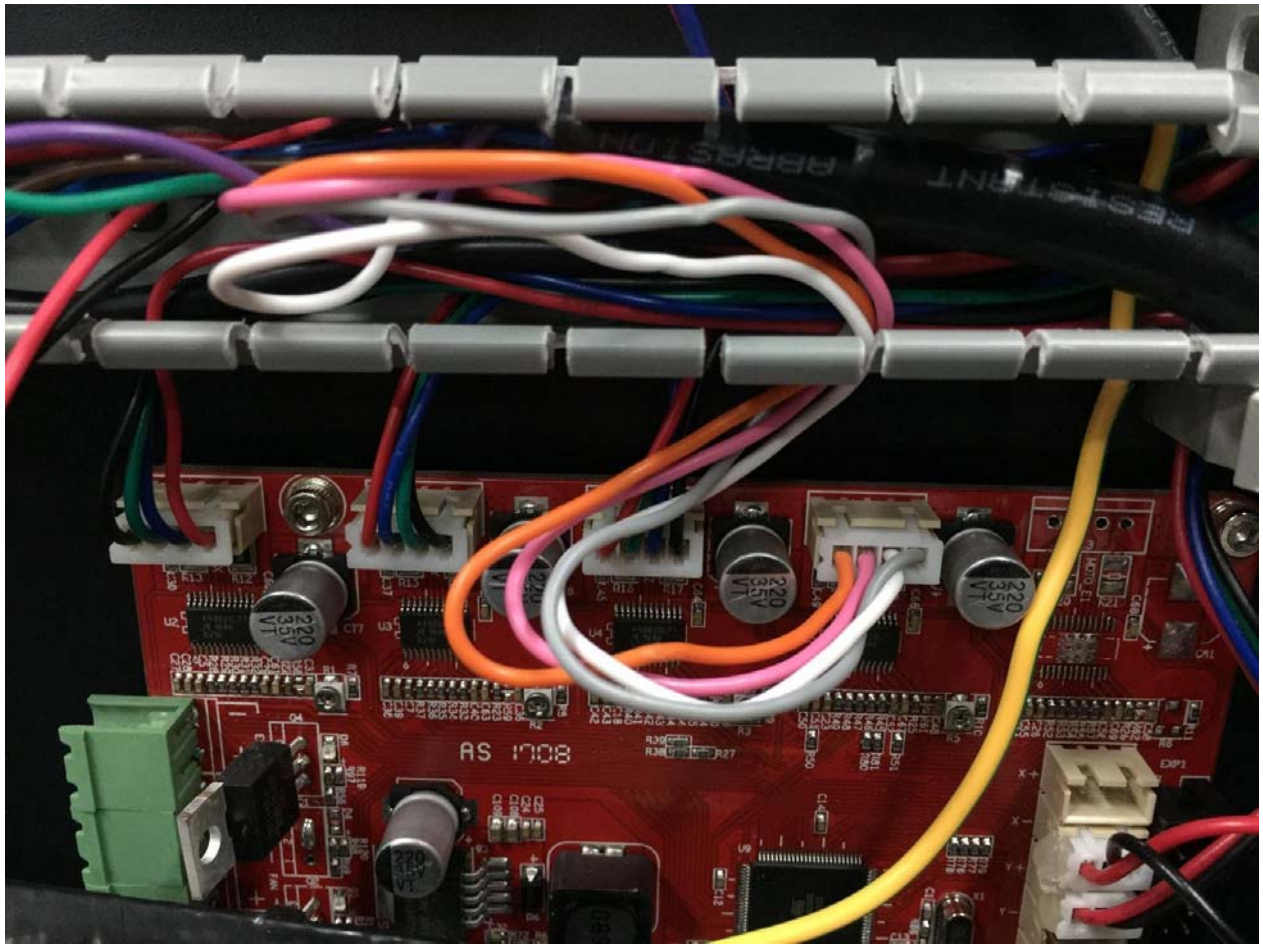
•35. Install the cable stands with screws by allen key 2.5mm. (screw size needed)



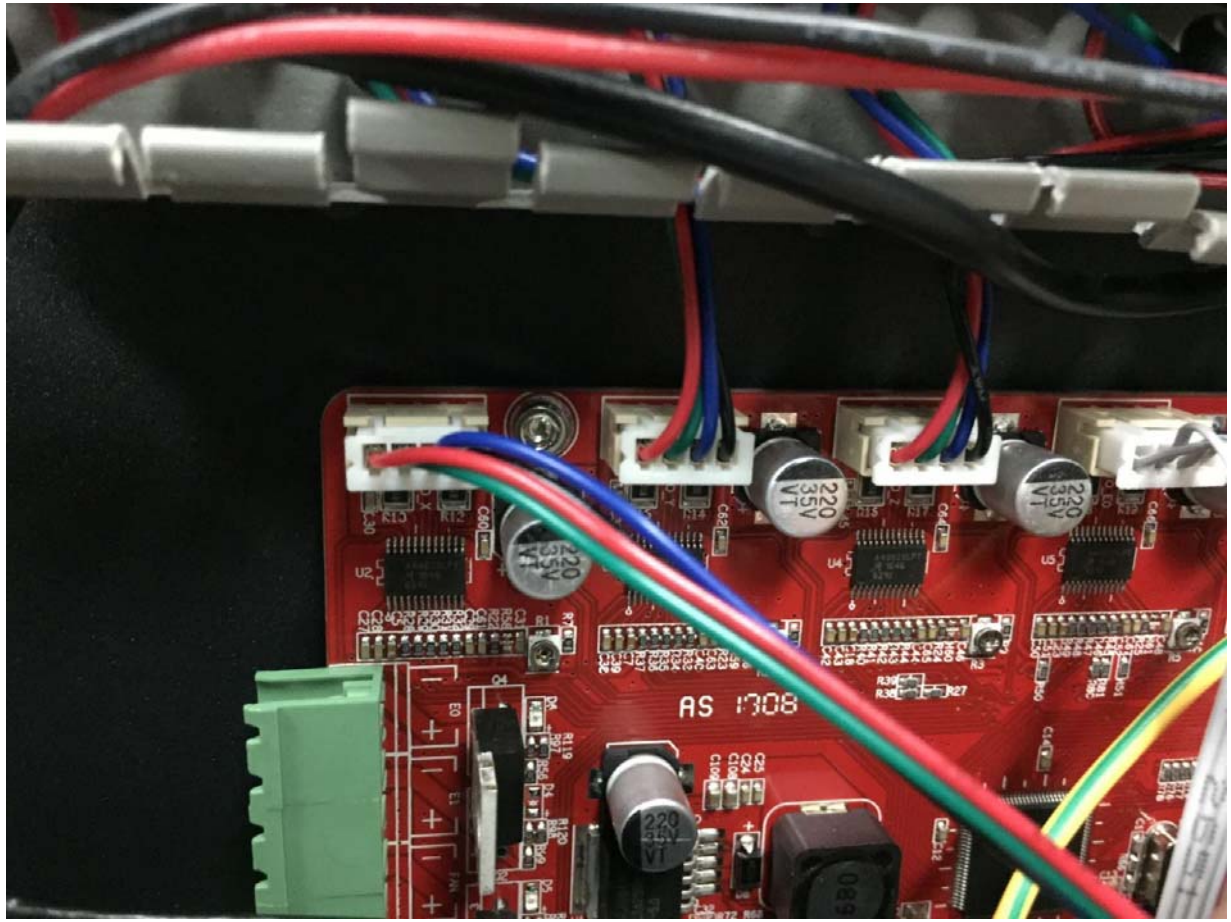
•38. Through all round cable terminals to the hole (in the corner) until we can see all of them at the bottom. (carefully, one by one terminator)



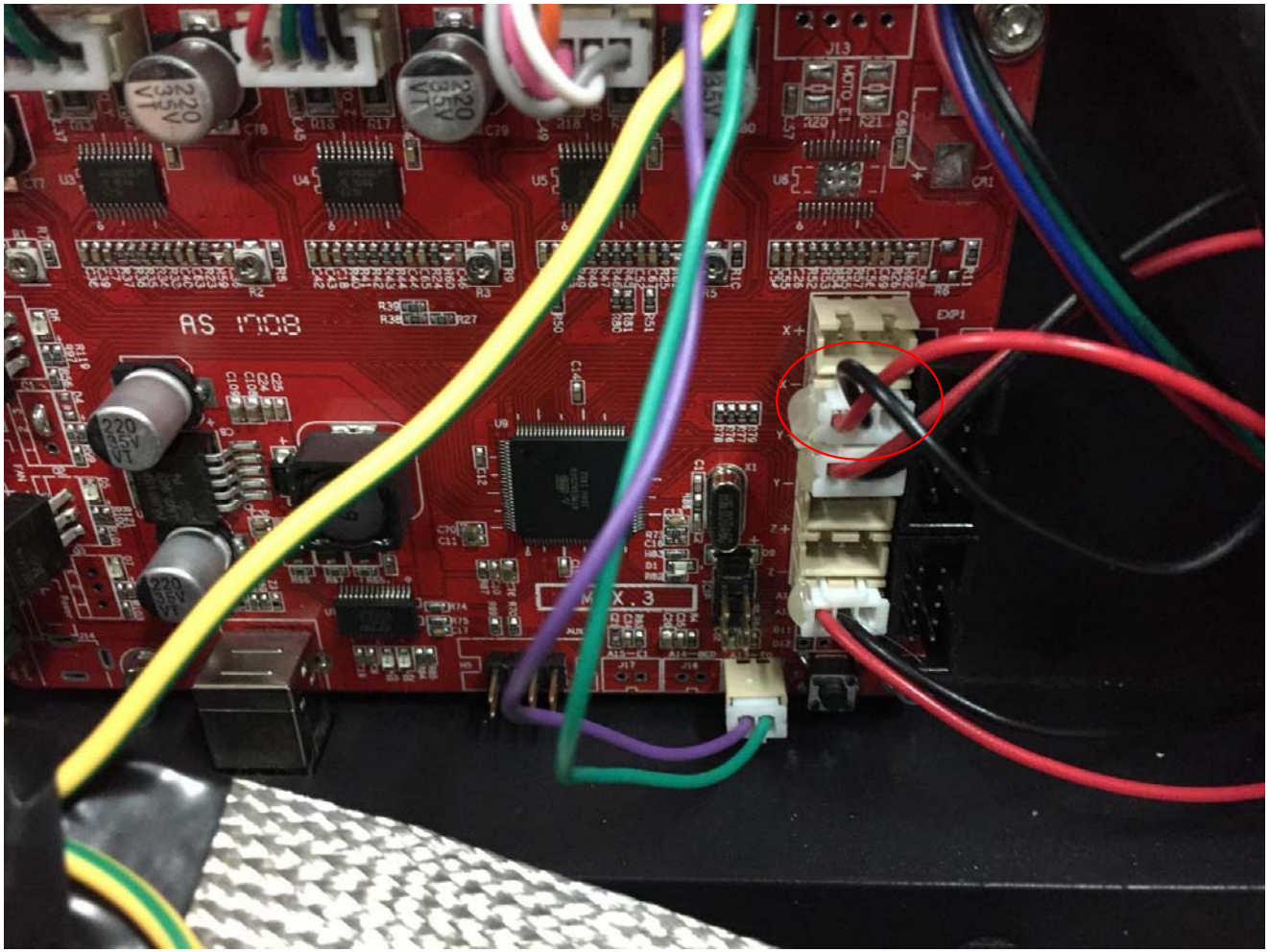
•39. Reinstall the extruder motor cable to terminal as shown in the picture.



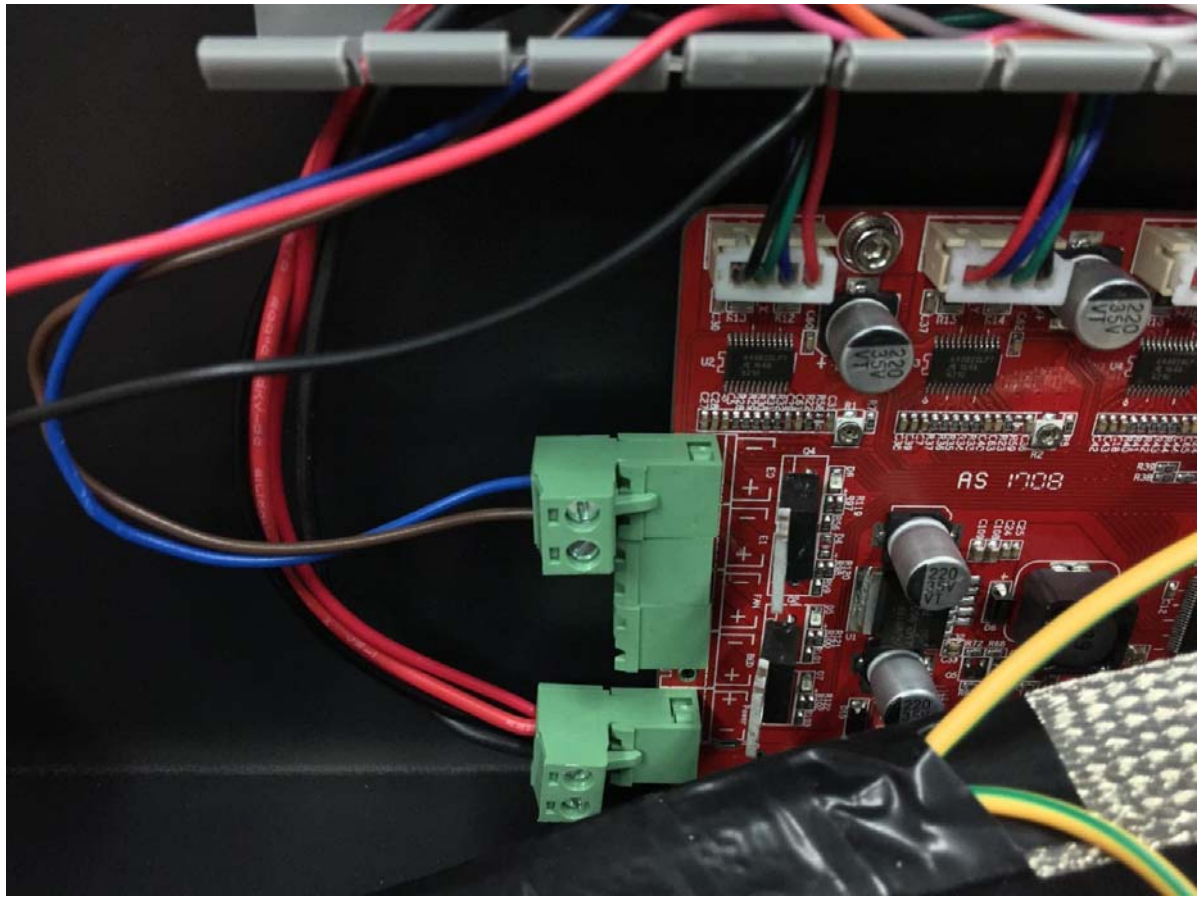
•40. Reinstall the X axis motor able to terminal as shown in the picture



•41. Reinstall the thermistors cable and limit switch cable as shown in the picture.

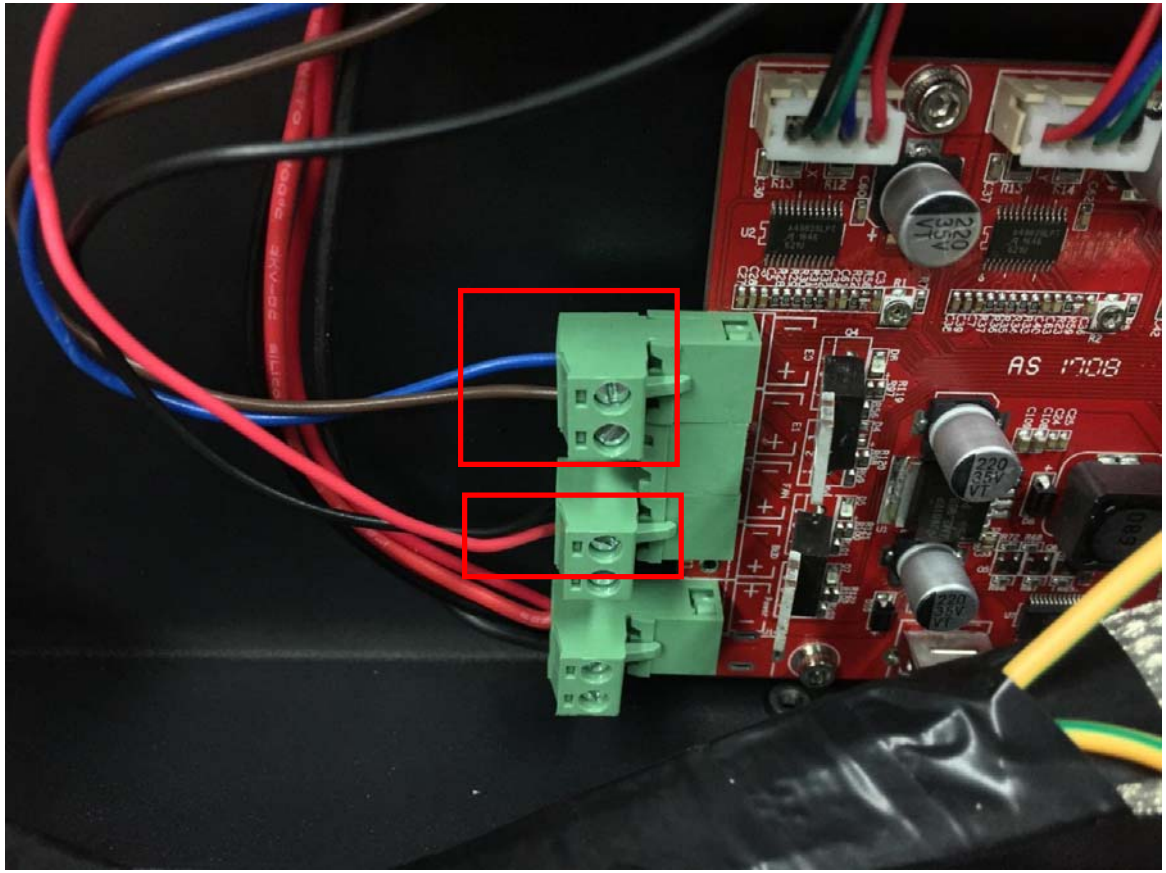


•42. Reinstall extruder heating cable as shown in the picture.
•Aware of polarity

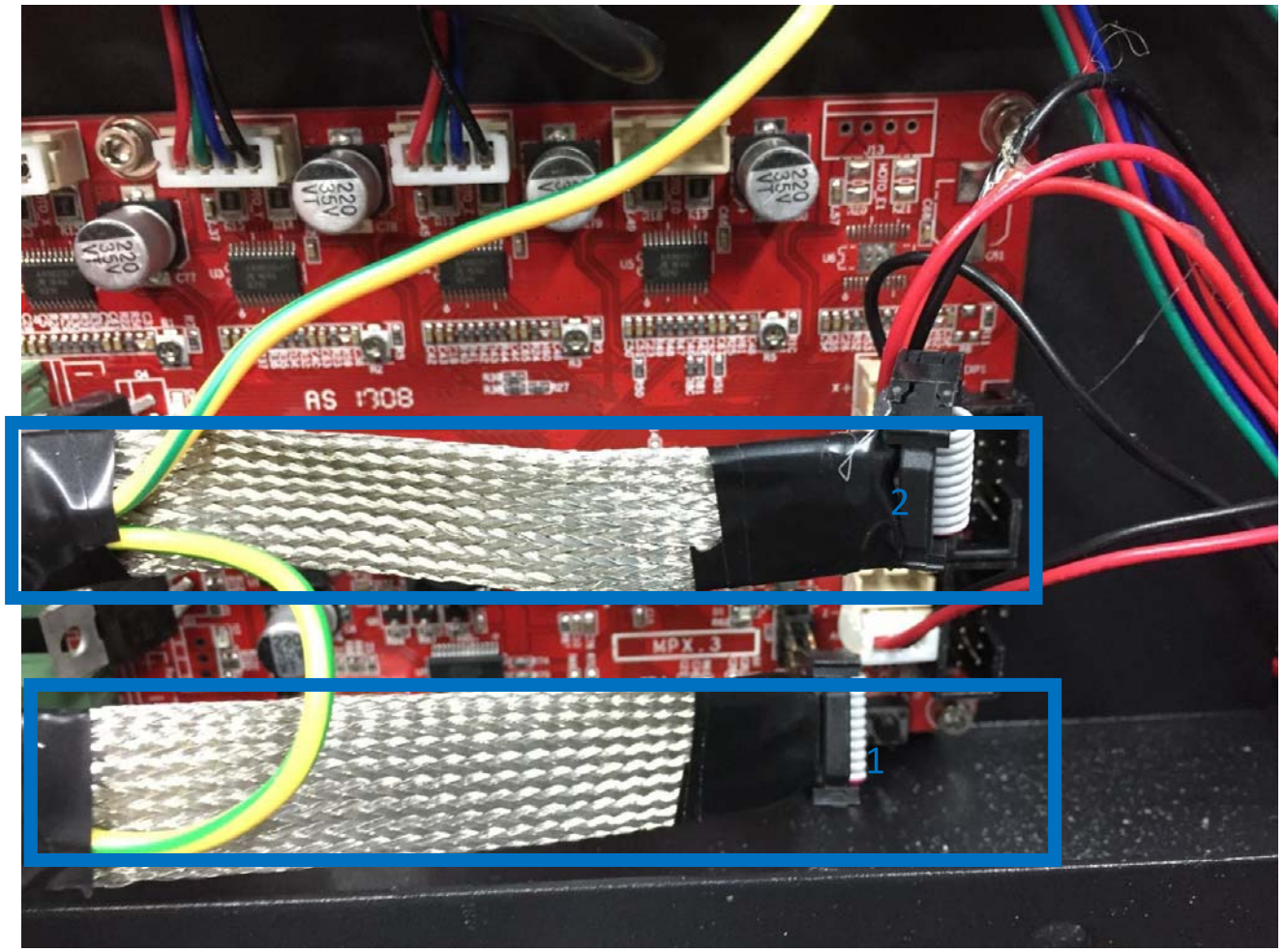


•43. Reinstall extruder fan cable as shown in the picture.

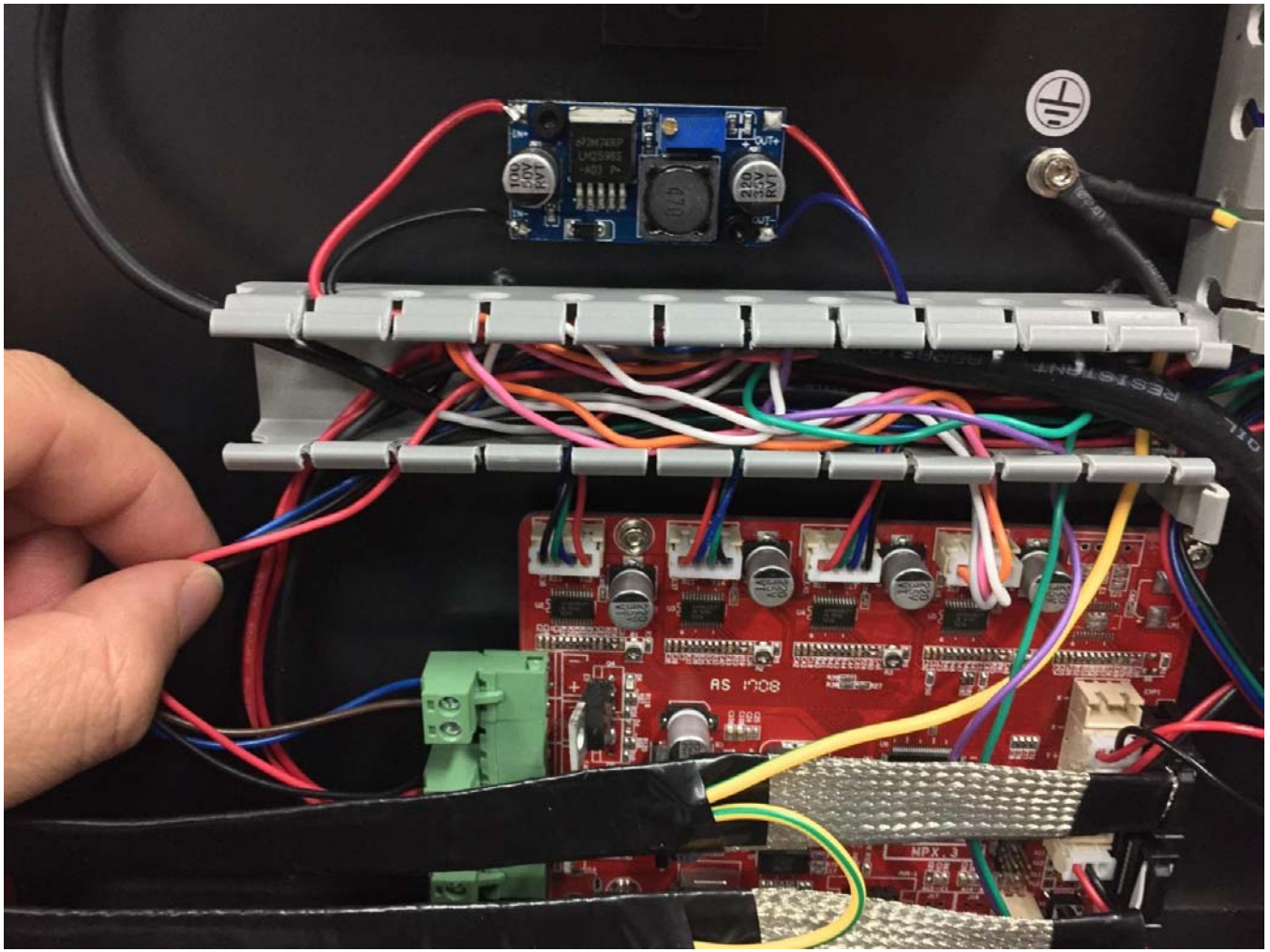
•Aware of polarity



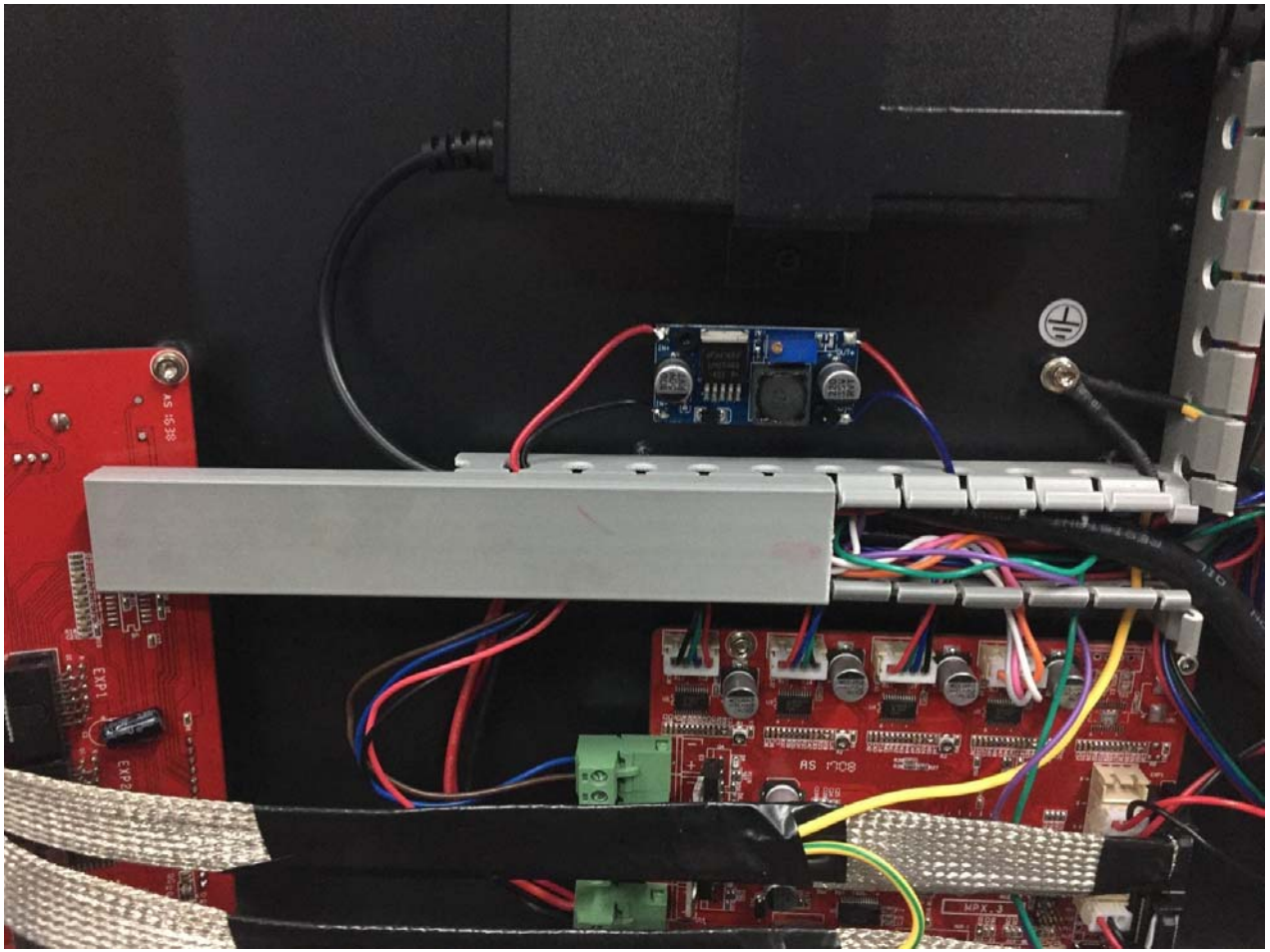
•44. Reinstall the cable with metal protector as shown in the picture. (take care that the cable should not be twisted. They should be plug in parallel)



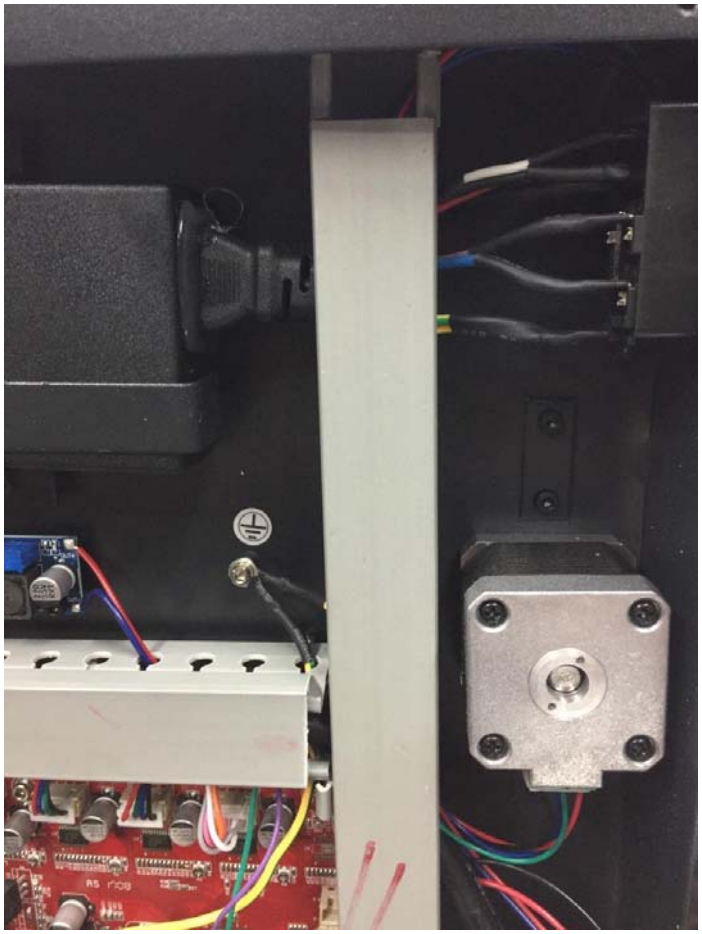
•45. Put the cable back into the cable slot to make them in order.



•46. Install the first cable cover.

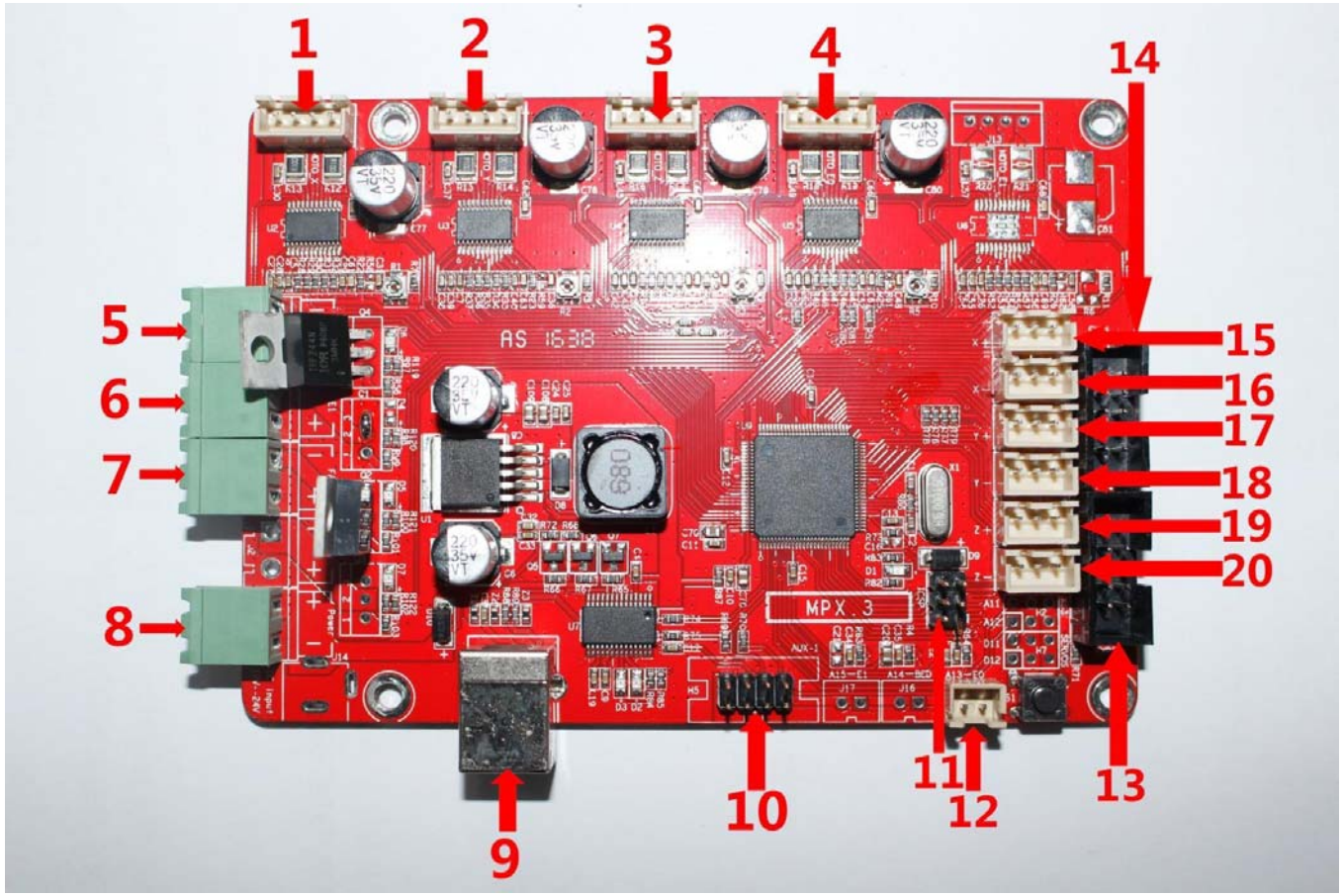


•47.Install the second cable cover



•48.Reinstall bottom cover and then tighten 4 bottom screws by allen key 3.0mm.

- Supplementary note: RF100 Mainboard port



Items highlighted in Green are those will be plug/unplug during the operation

1- X axis power port

2- Y axis power port

3- Z axis power port

4- Extruder power port

5- Heating rod port

6- N/A

7- Fan power port

8- Motherboard power port

9- USB port

10- N/A

11- N/A

12- Thermistors port

13- Display PCB port01

14- Display PCB port02

15- X+: N/A

16- X-: Limit switch of X axis port

17- Y+: Limit switch of Y axis port

18- Y-: N/A

19- Z+: N/A

20- Z-: Limit switch of Z axis port