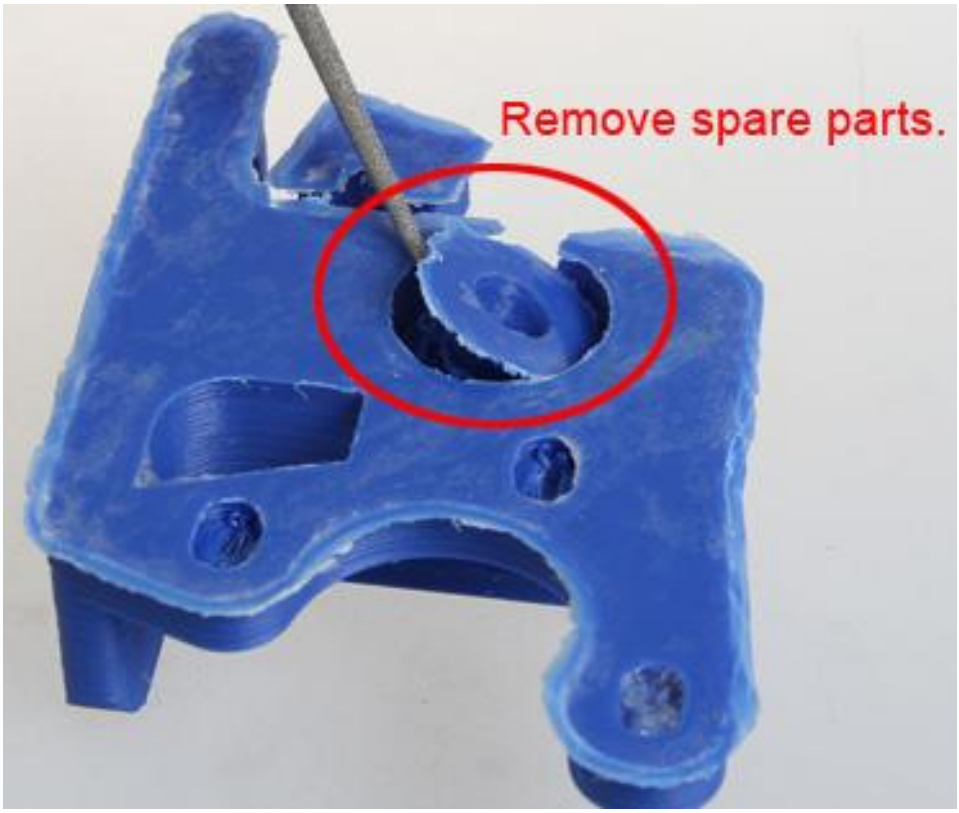
Rostock mini Hardware Build Manual

Some printed parts may have unsmooth edge, you can scrape them with the file. Some screw holes also have to be expanded for assembly.

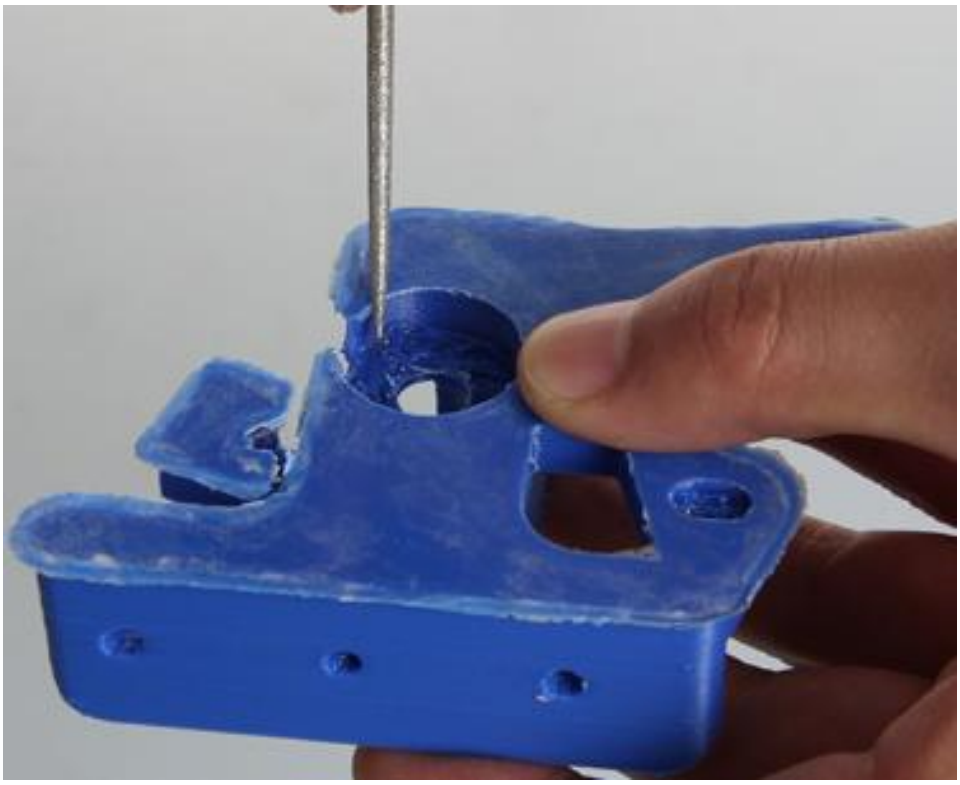
I. Pre-assembly of extruder

 1 X Small Drive Gear	 1 X Extruder Idler Block	 1 X Big Brive Gear	 1 X Extruder Block
 1 X M8 Hobbed Bolt	 2 X M4*50 Bolt	 1 X M3*30 Bolt	1 X M3*6 Headless Screw
 3 X M3*10 Bolt	 1 X M8*20 Polish Rod	 2 X Spring	 1 X M8 Lock Nut
 Several M4 Nut	 Several M3 Nut	 Several M4 Washer	 Several M8 Washer
 3 X 608 Bearing	 1 X Screwdriver Set	 1 X File	 1 X Stepper Motor

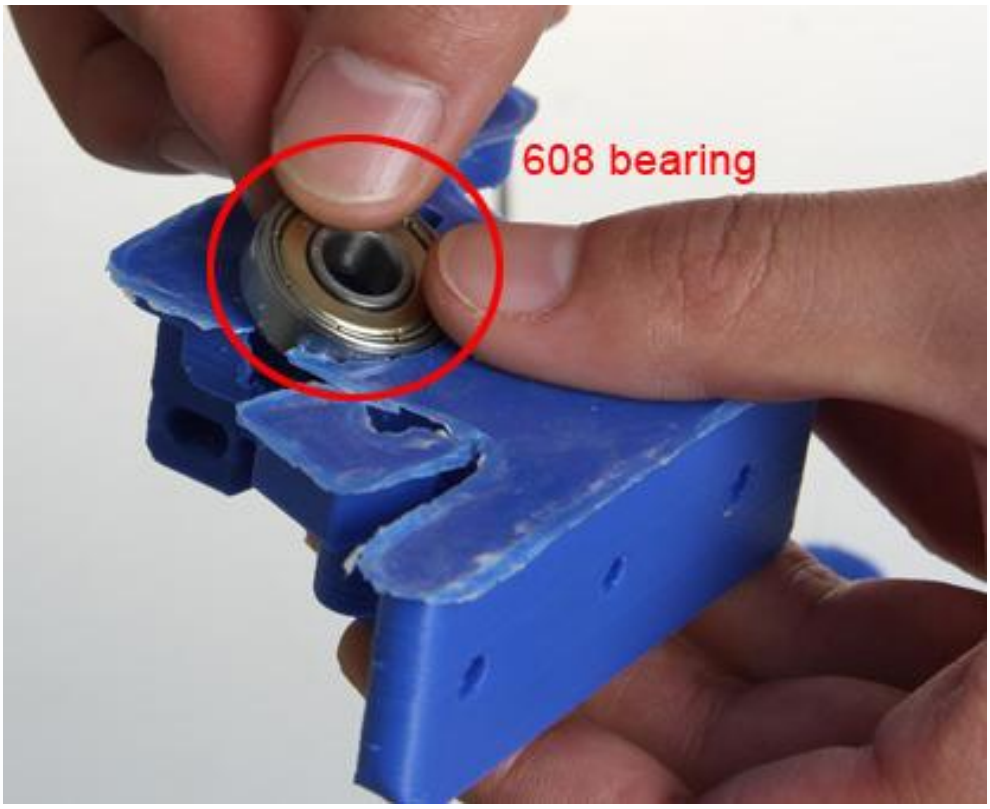
1. Extruder block



Use the file to remove spare parts.



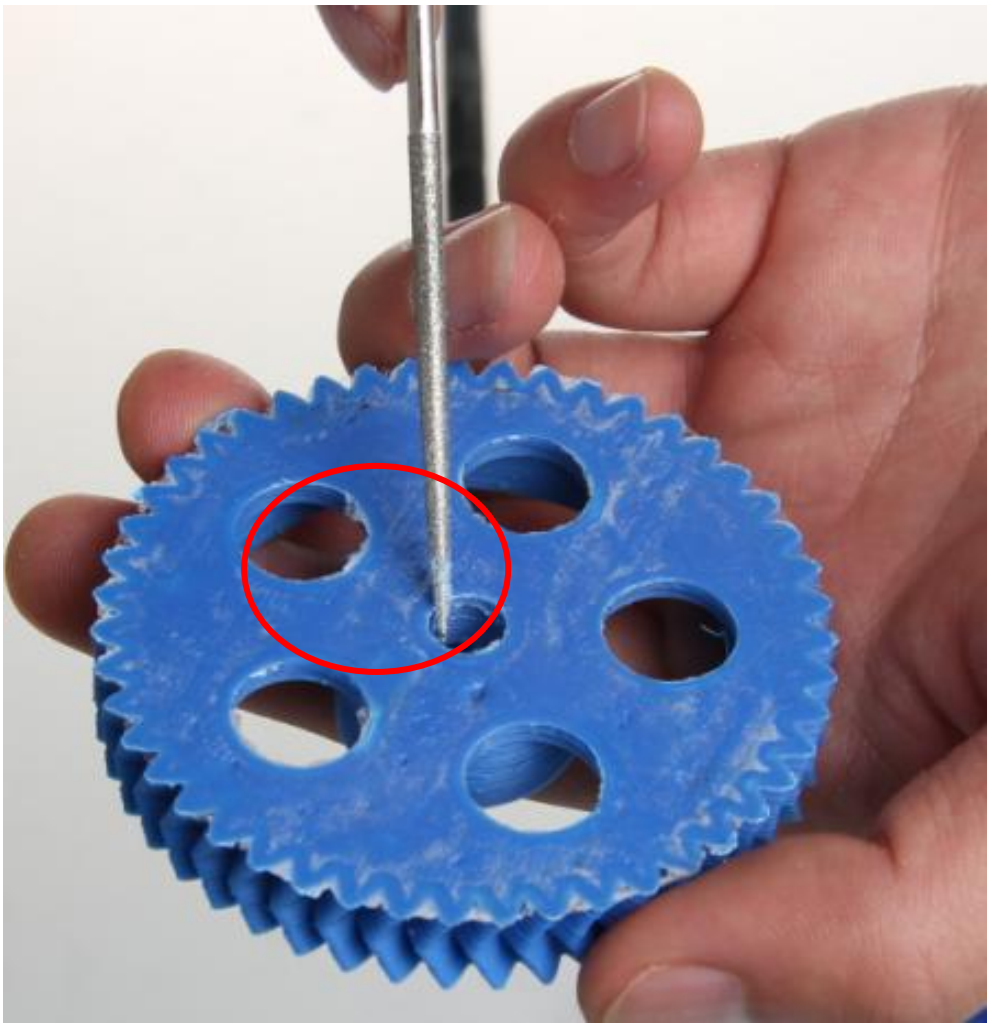
Enlarge the hollow and smooth the edge.



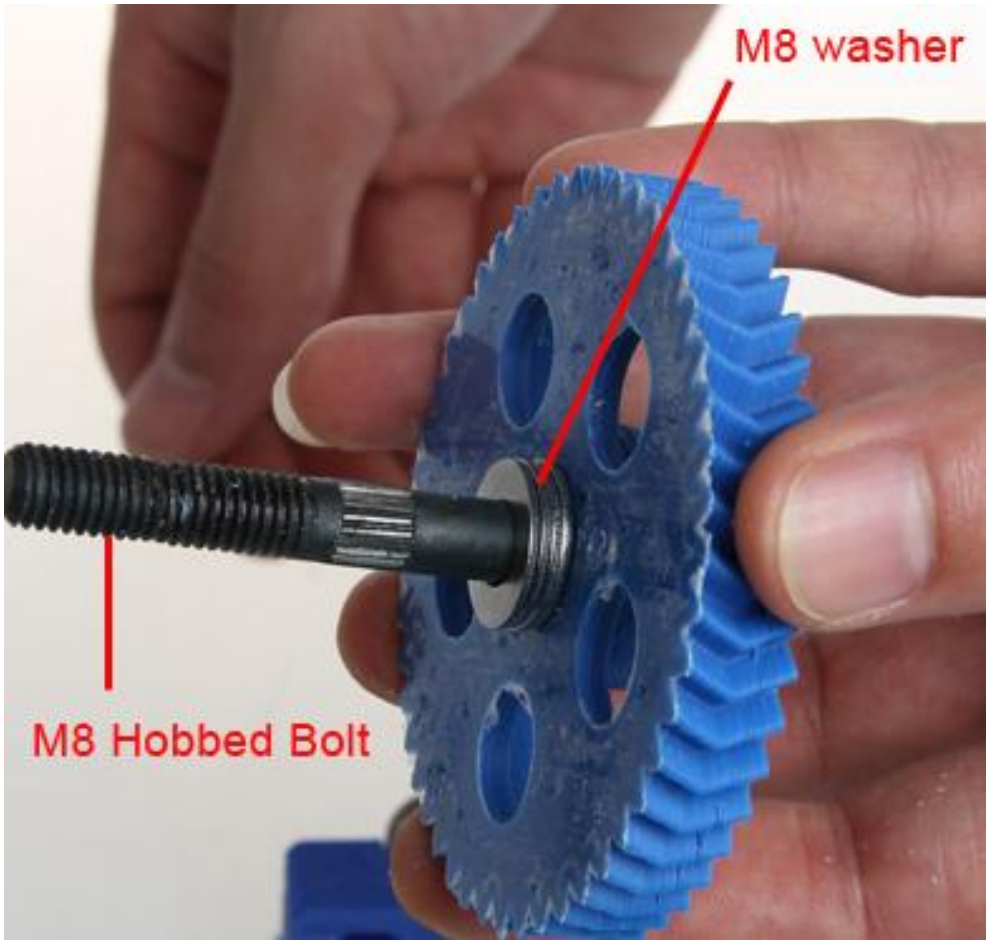
Mount the 608 bearing inside the hollow. Use the file to rub the hollow again if it is difficult to fit the bearing.

Mount another 608 bearing on the other side of the Extruder block.

2. Big drive gear

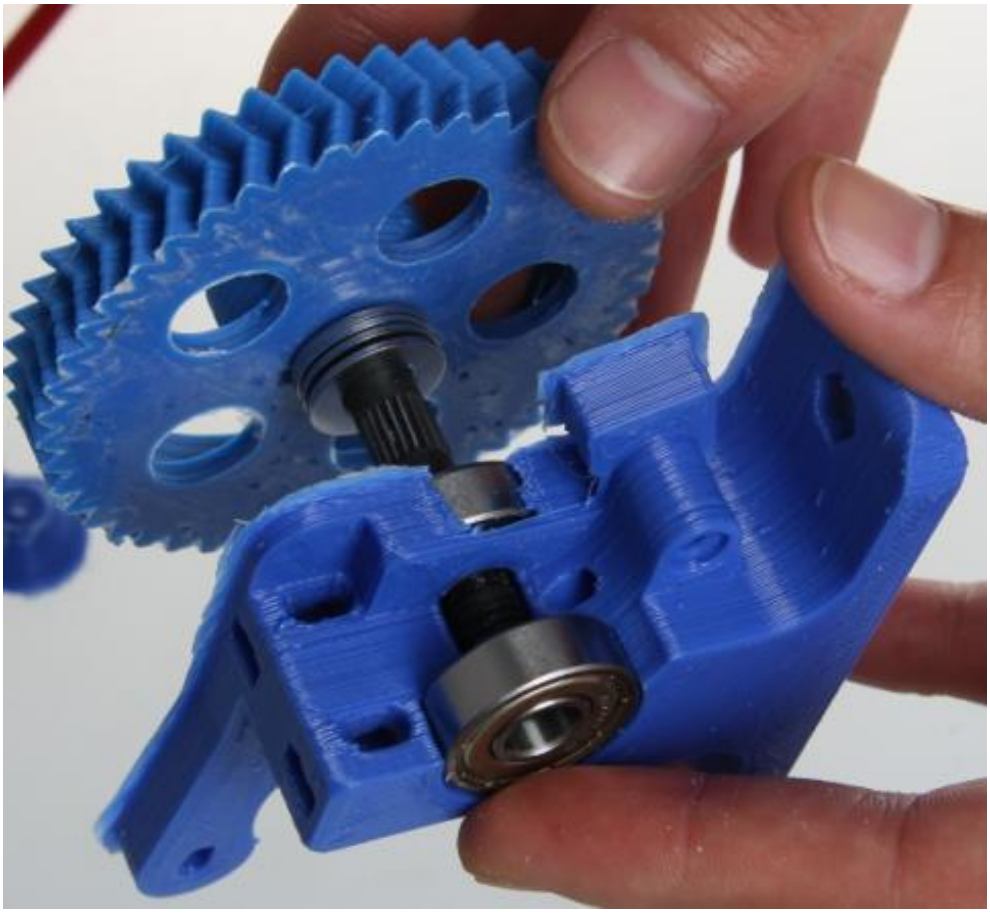


Enlarge the hole and smooth the edge.

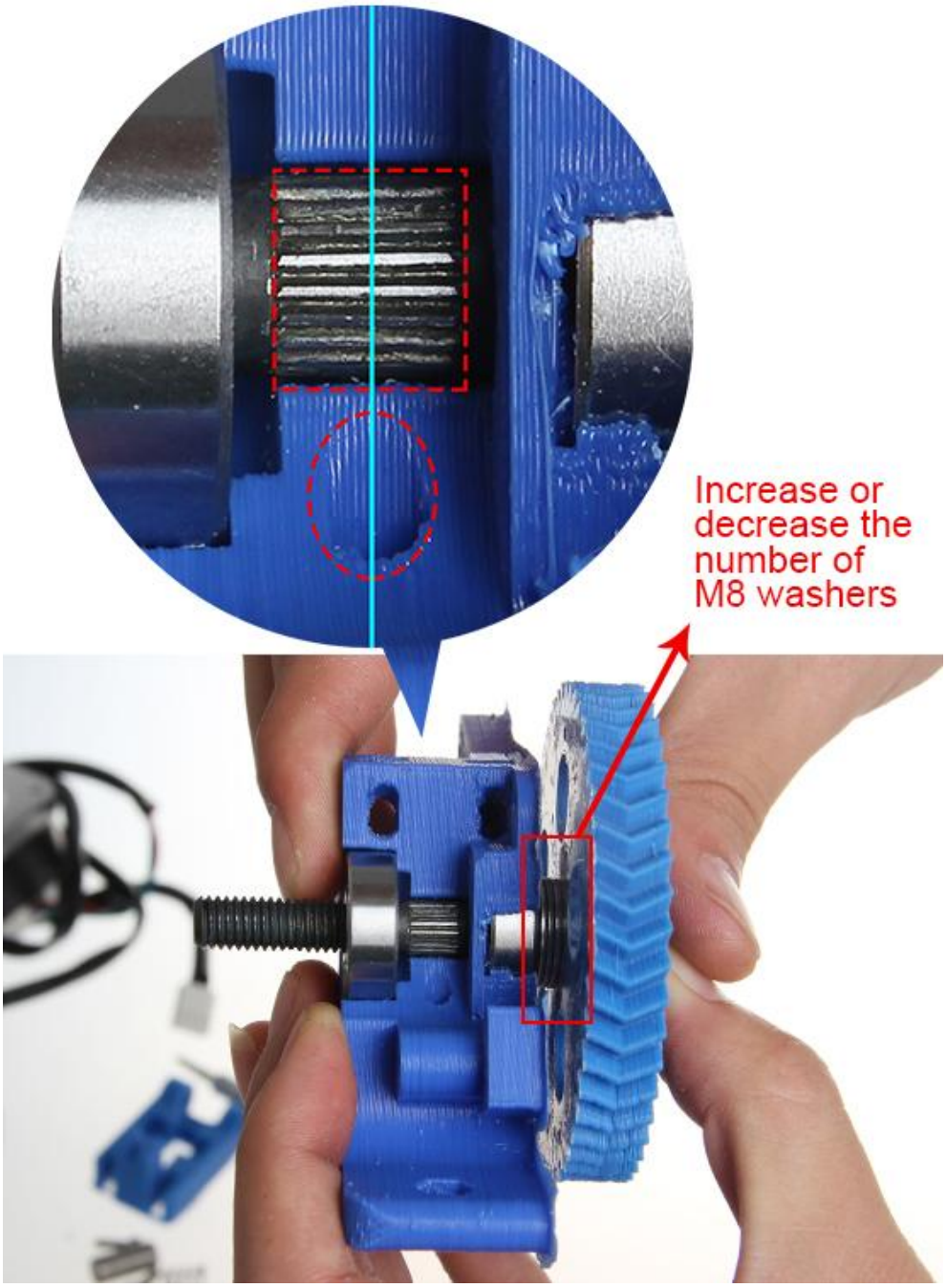


Put the M8 Hobbed bolt inside the hole, then add several(3 to 4) M8 washers.

3.



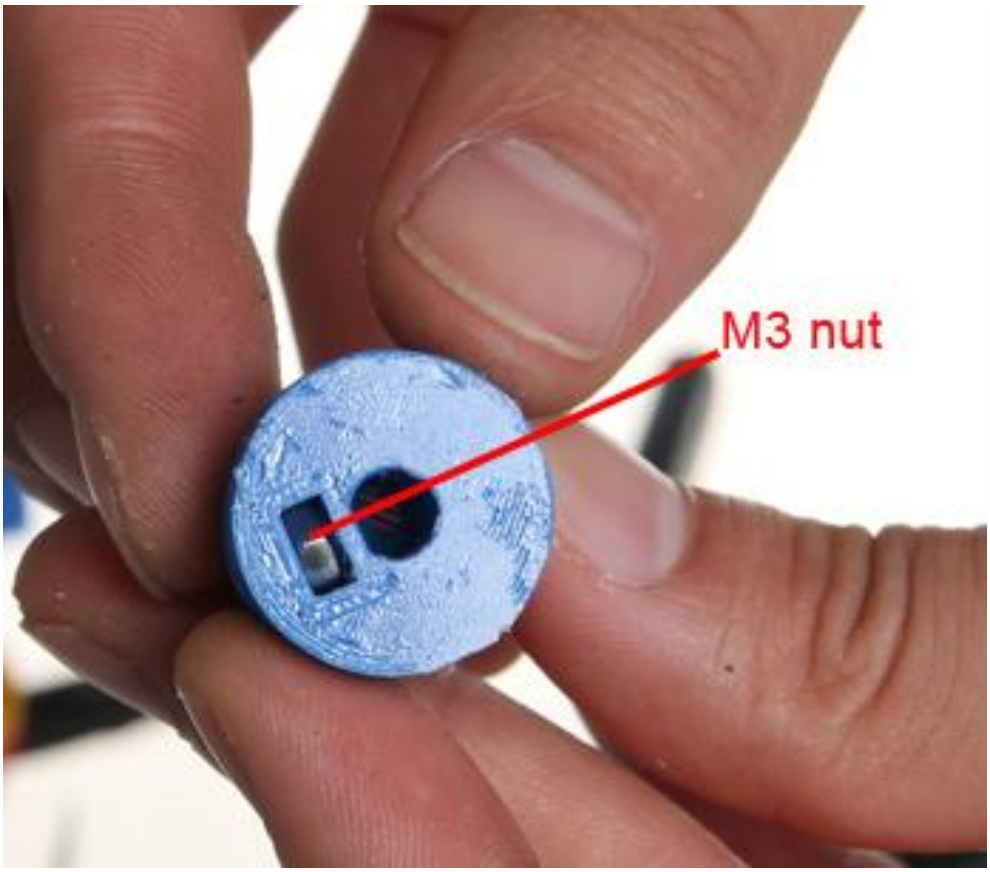
Mount the Big drive gear and Extruder block together with M8 Hobbed Bolt passing through the two 608 bearings.

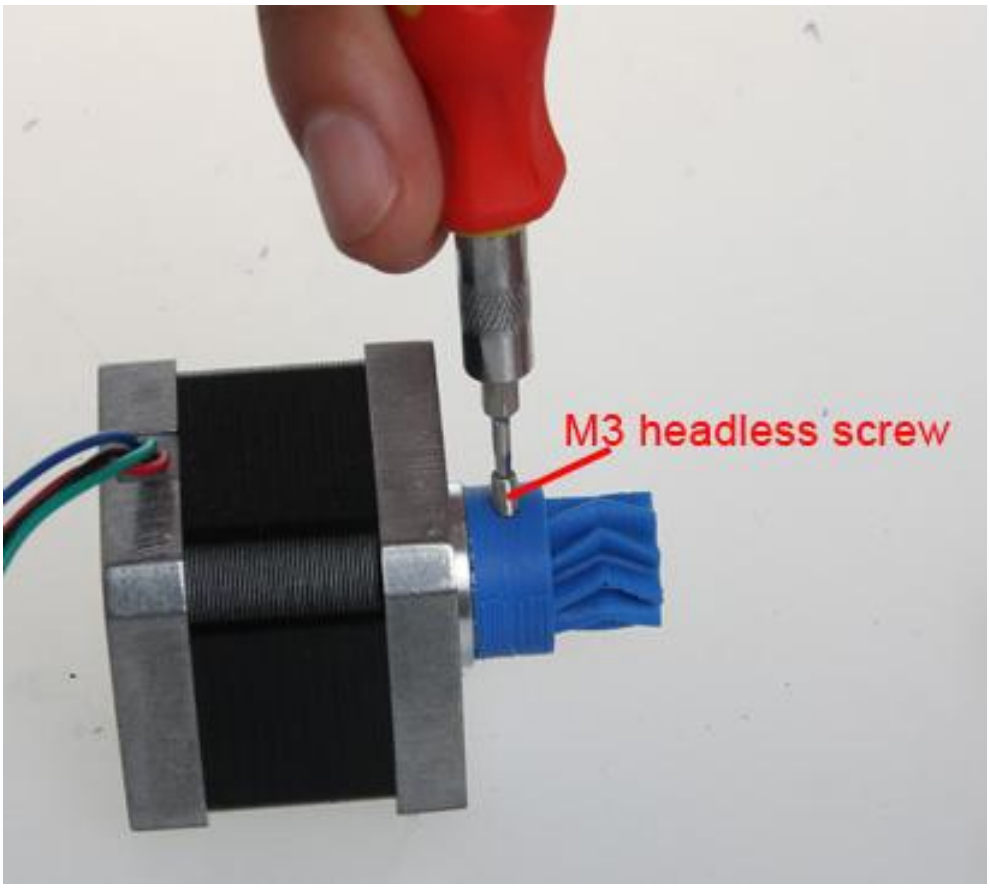


Make sure the middle of the filament feeding channel aligning with the middle of the Hobbed Bolt's W tooth by increasing or decreasing the M8 washers.

Add several(1 or 2) M8 washers, then mount the M8 lock nut by pliers or screw key.

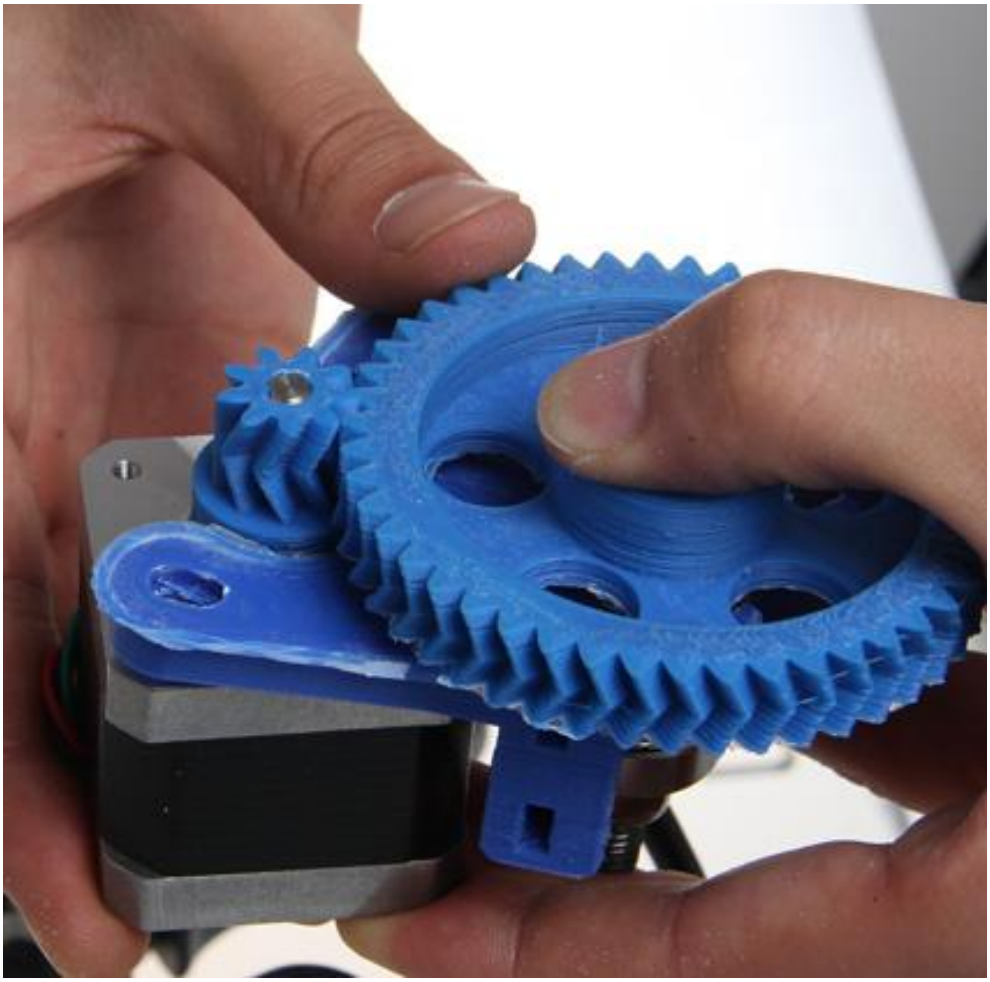
4.Small drive gear & stepper motor



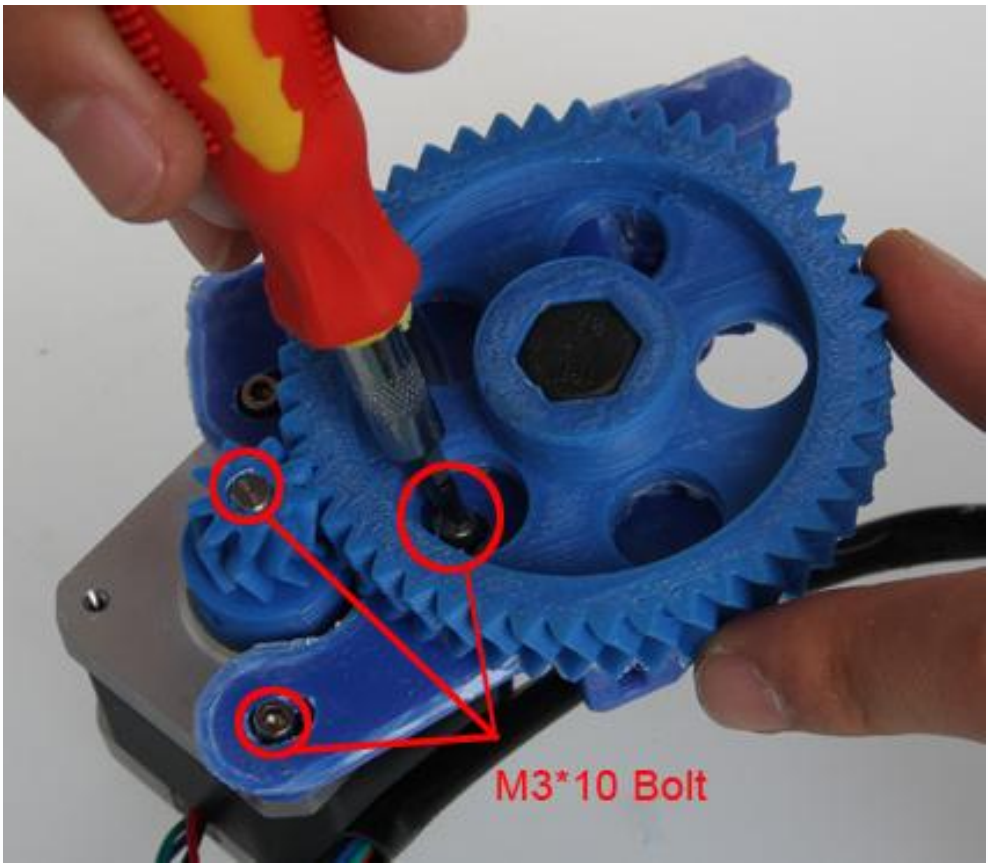


Use the M3 headless screw to fix the Small drive gear.

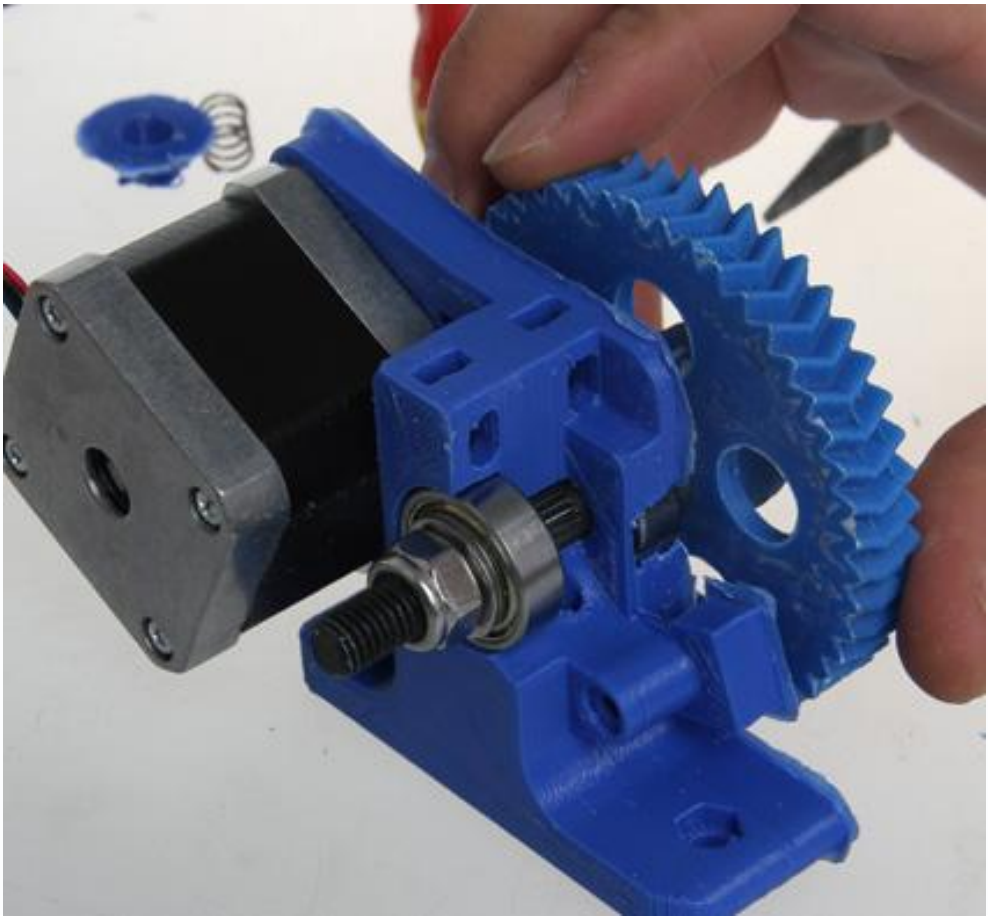
5.



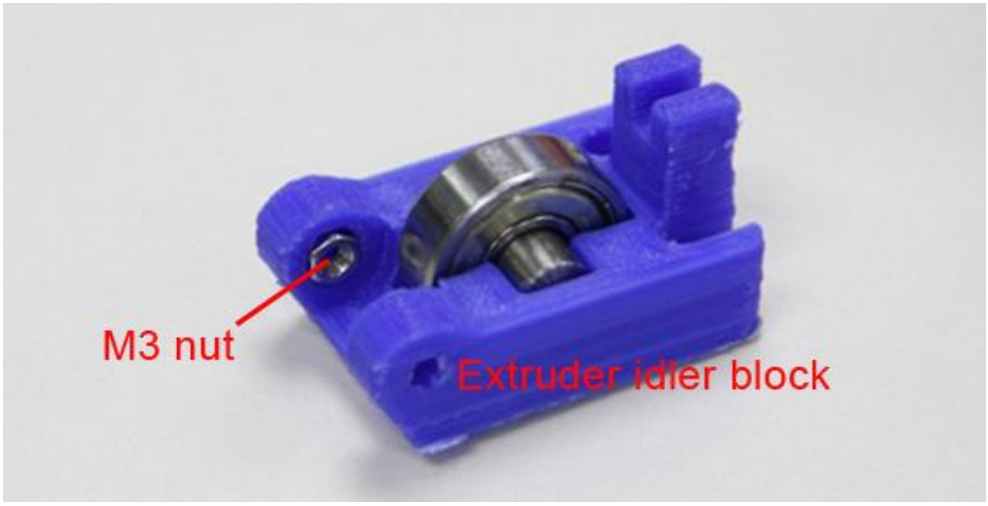
Mount the stepper motor to the Extruder block.



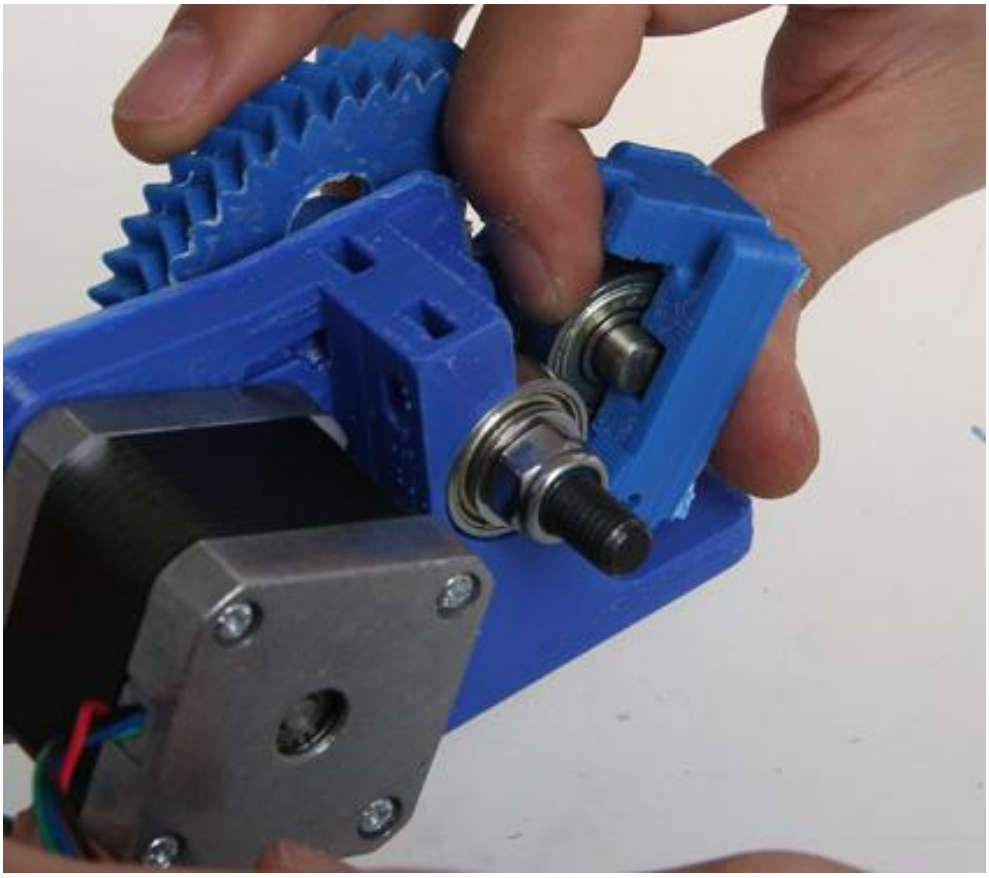
Use three M3*10 Bolt to fix the stepper motor

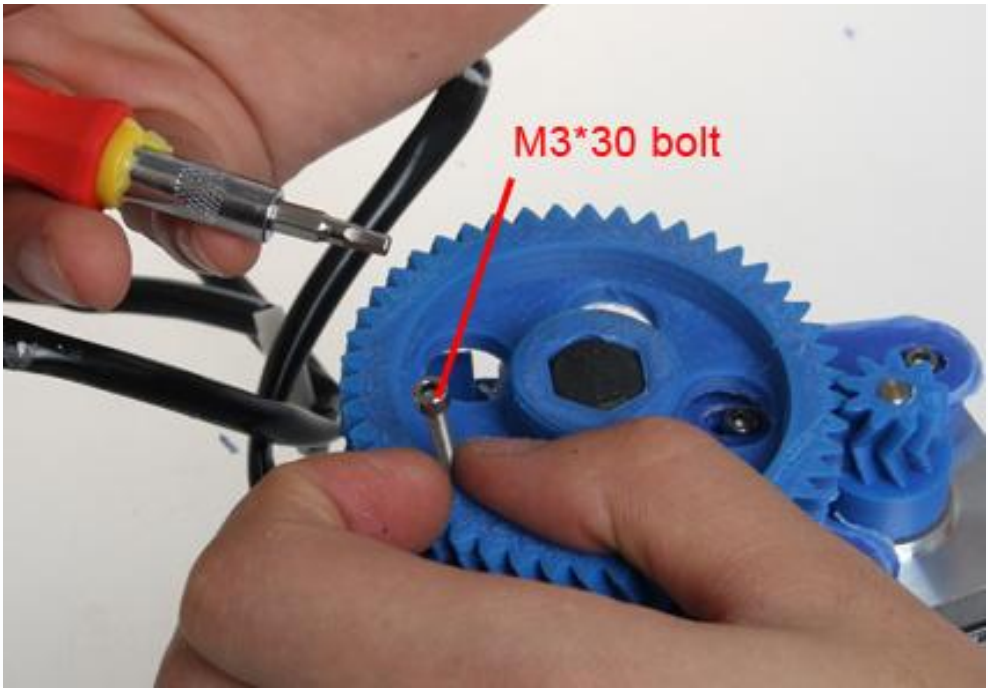


6.Extruder idler block



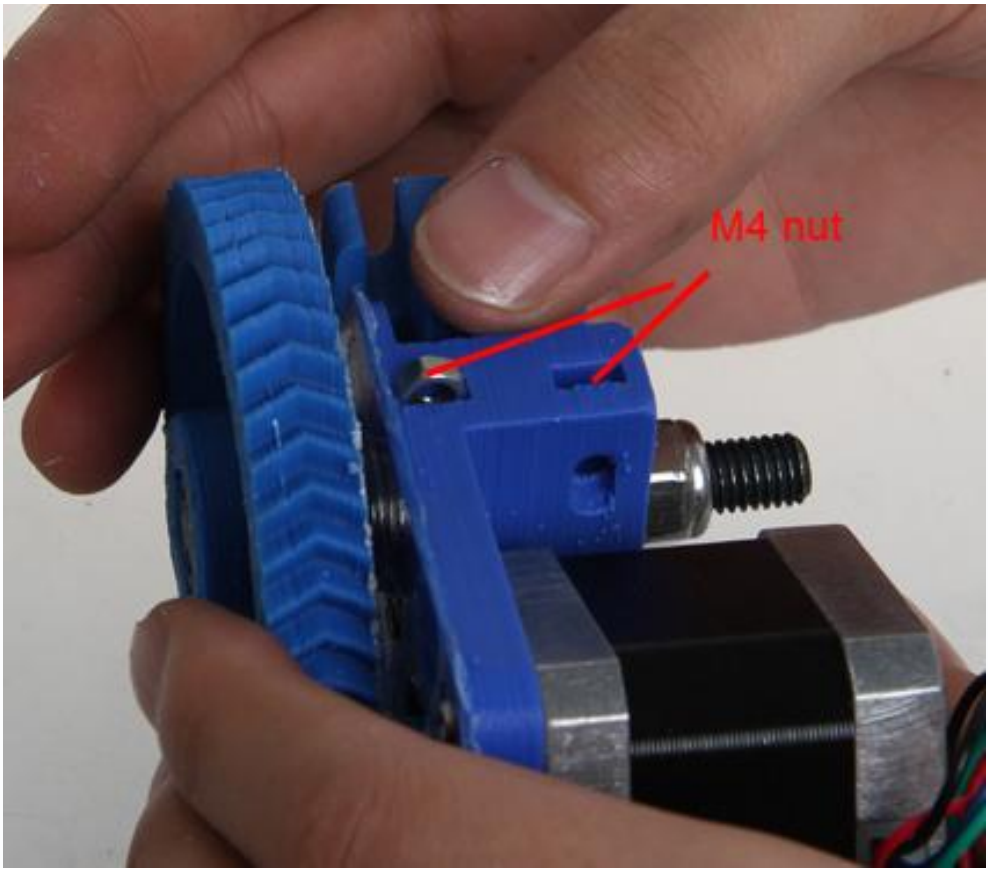
7.Mount the Extruder idler block to Extruder block

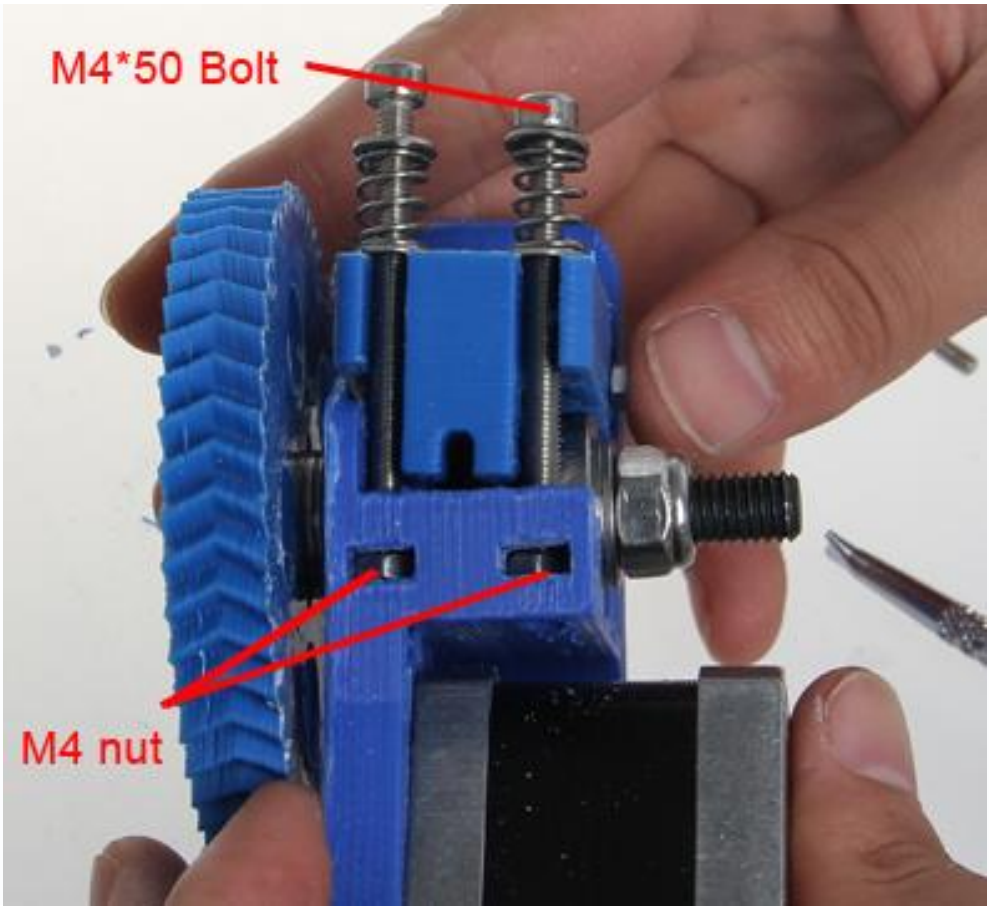


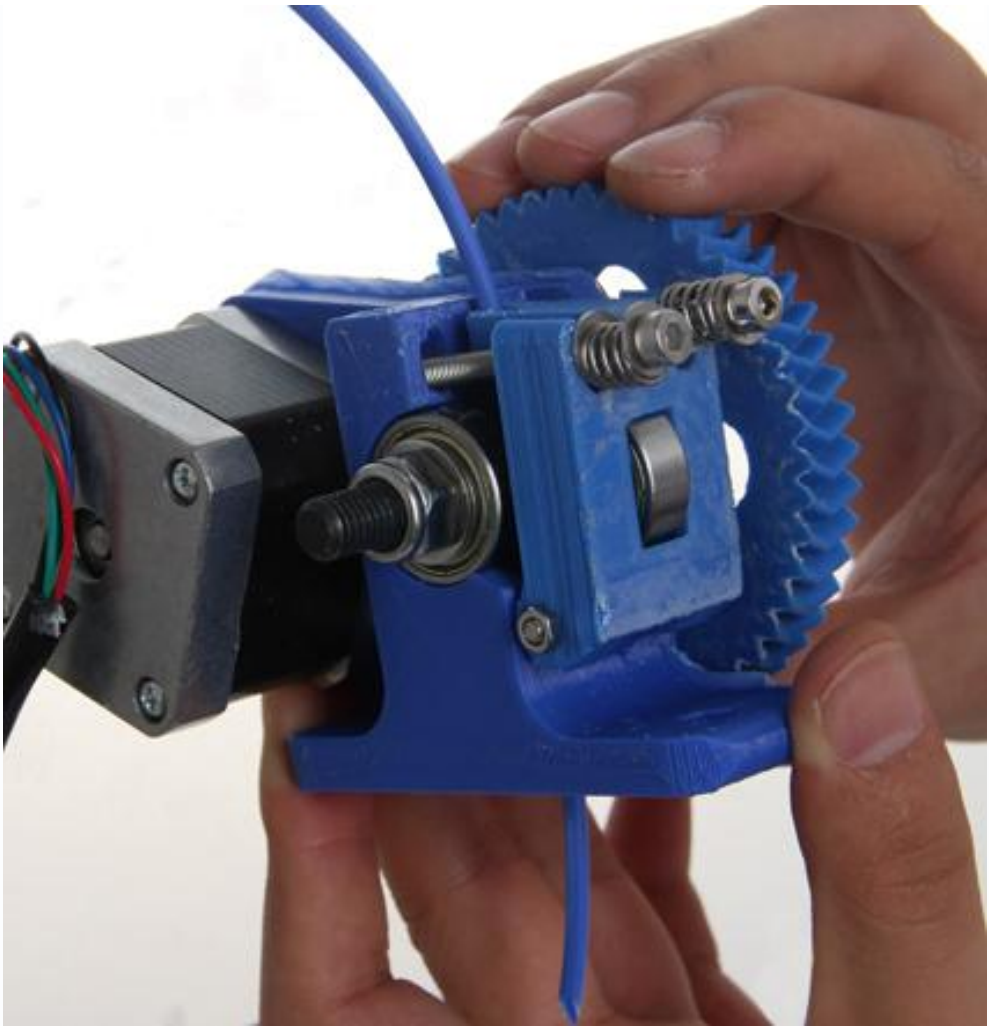


Use M3*30 Bolt to fix the Extruder idler block.

8.



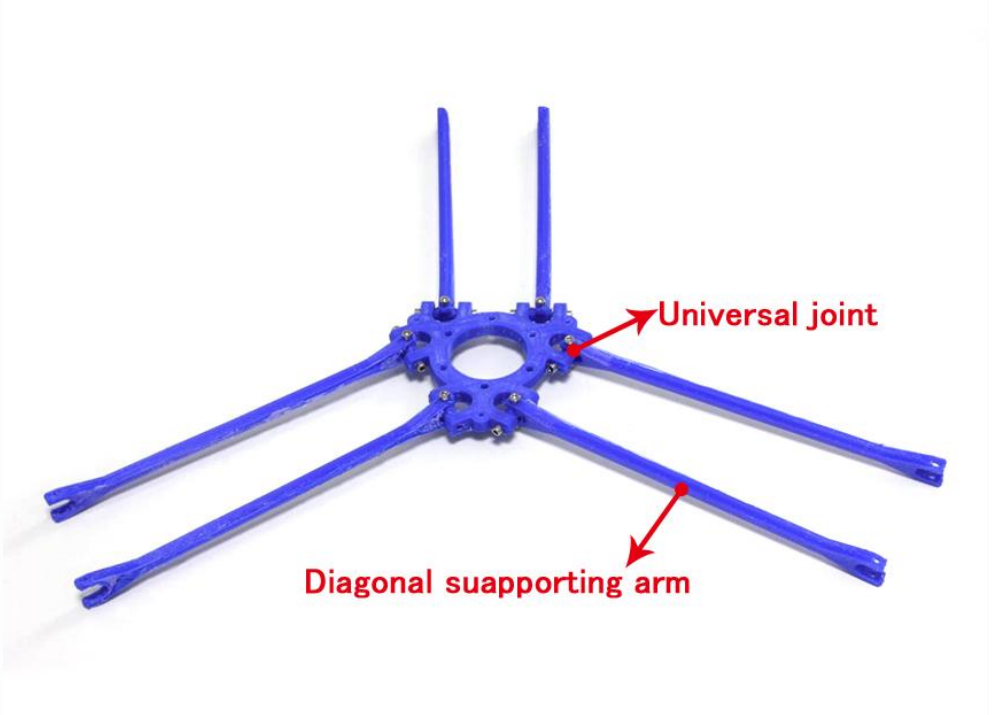

M4*50 Bolt
M4 nut



Put the filament into the feeding channel and turn the big gear to make sure it is feeding fluently.

II. Pre-assembly

1. Assemble of the Universal arms



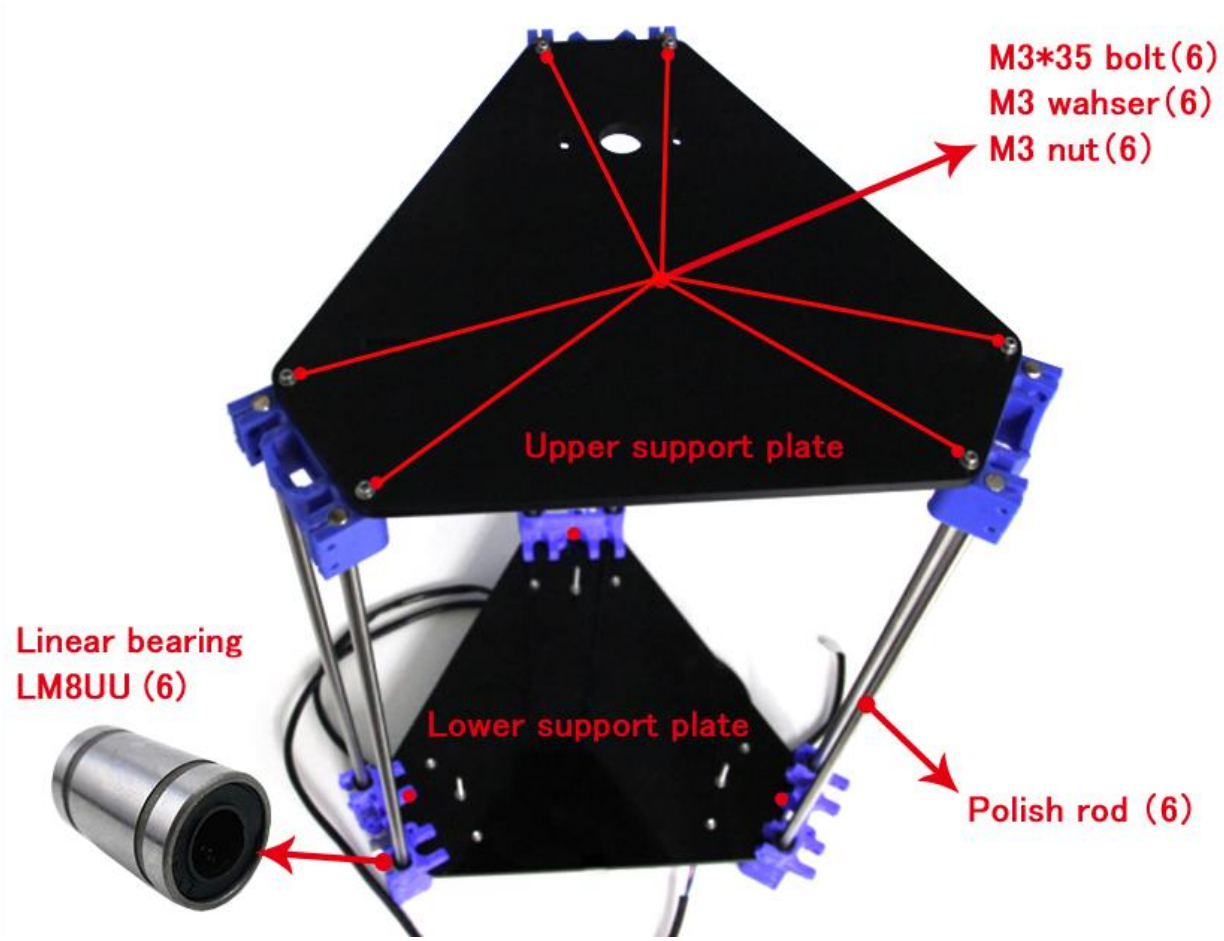
Set the universal joints (one is fixed with 2 x M3*10 inner hexagon screw and another is fixed with 2 x M3 screw). The diagonal supporting arm is fixed on universal joint (1 x M3*10 inner hexagon screw + 1 x M3 rubber-washer screw). When the free joint can be assured, the gap should be as small as possible.

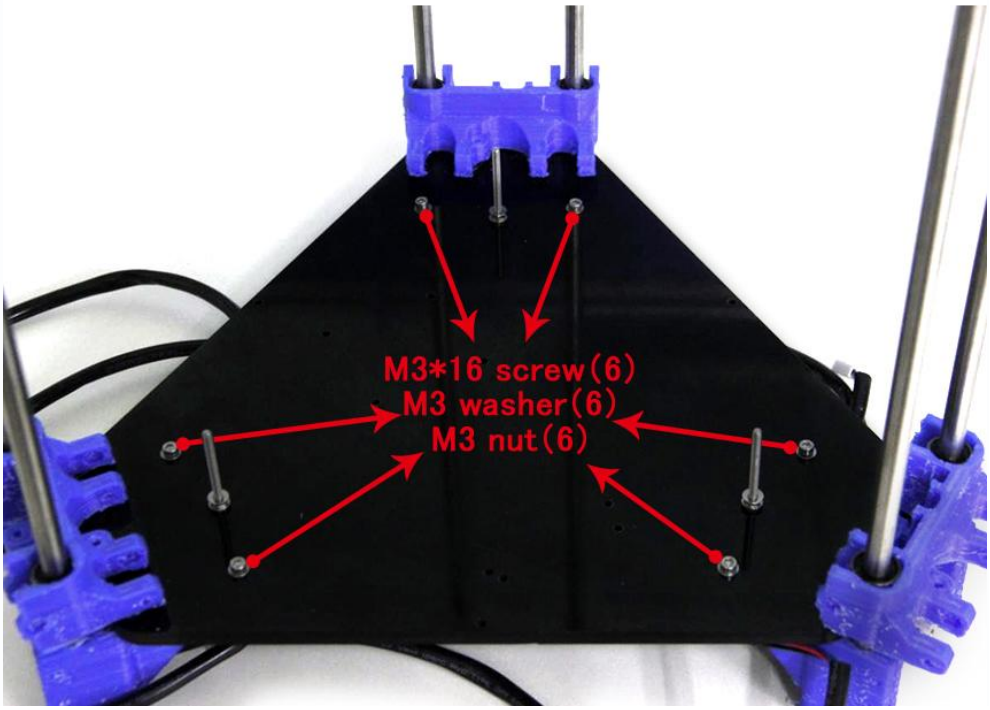
2. Pre-assembly of stepper motor

Fix motor to support with 4 x M3*10 screw + 4 x M3 washer; then Assemble deep groove ball bearing onto motor spindle, and fix it with 2 x M3*6 set screw.

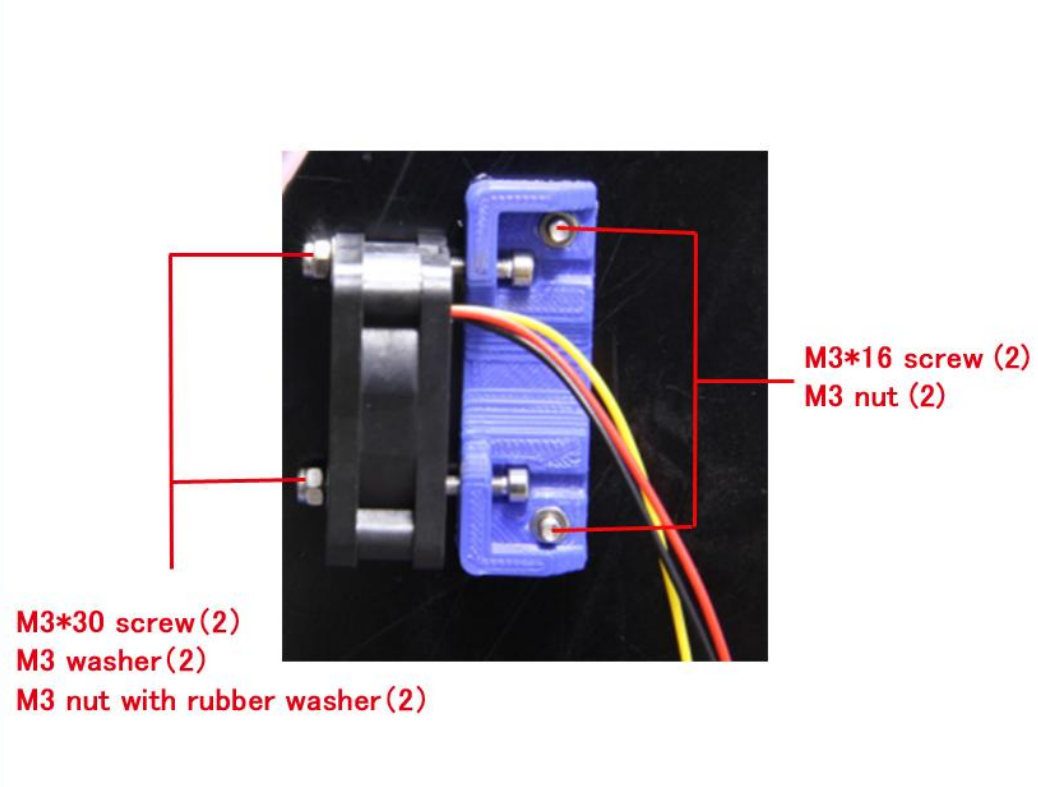
I. Assembly (numbers in the bracket represent quantity)

1. Assemble polish rod, upper/lower support plate, and linear bearing LM8UU.

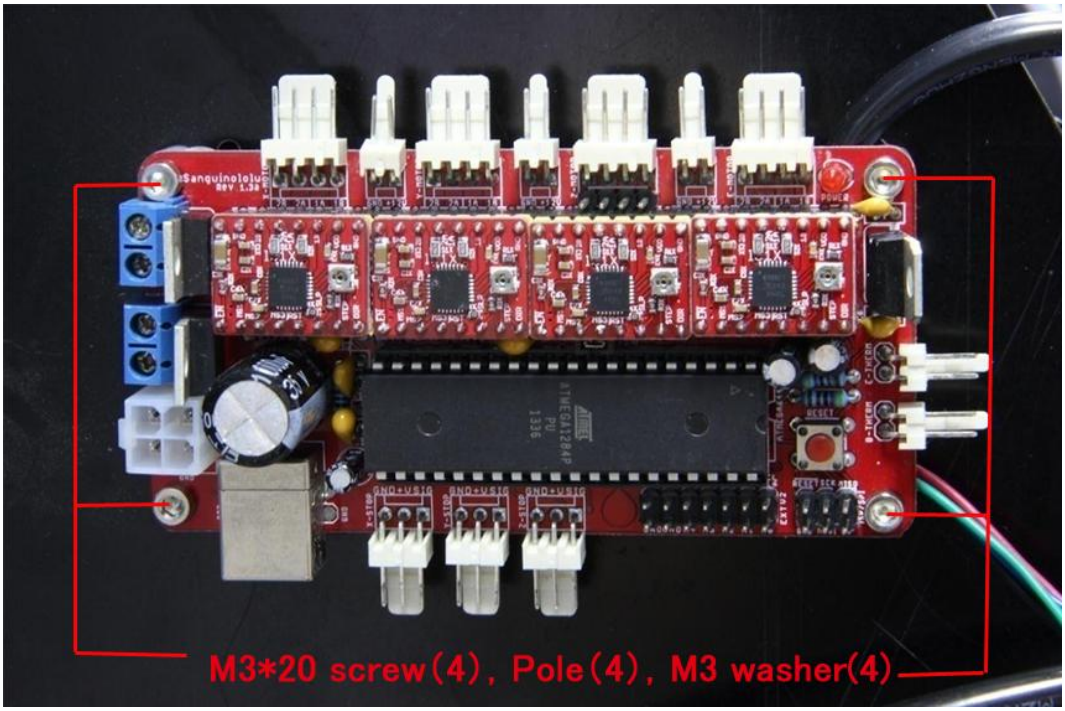




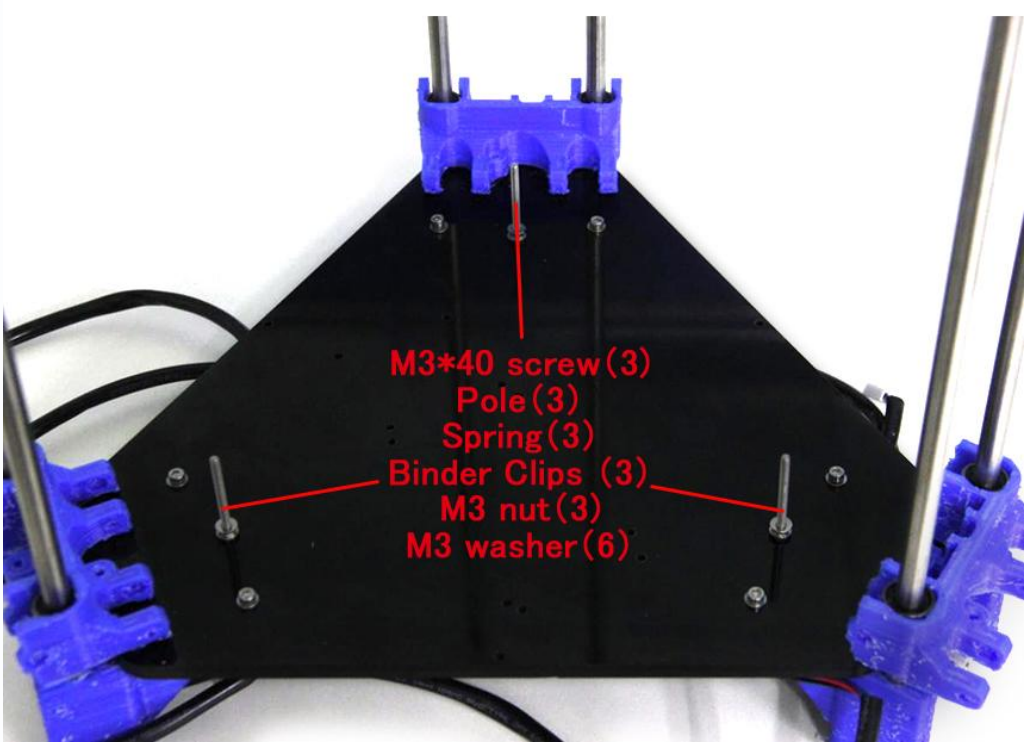
2. Assemble the fan.



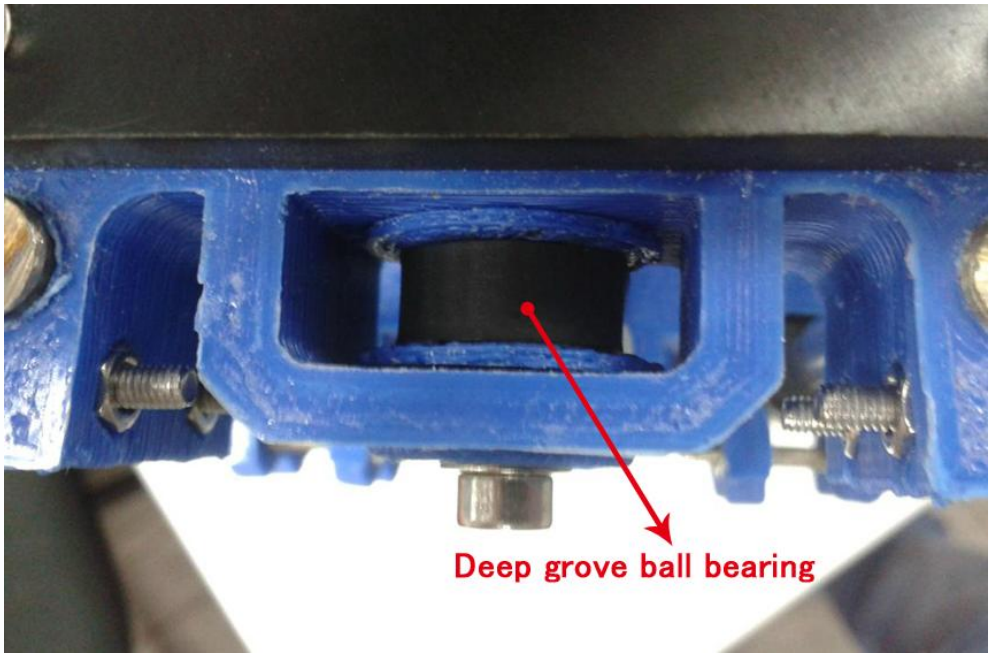
3. Assemble controller board.

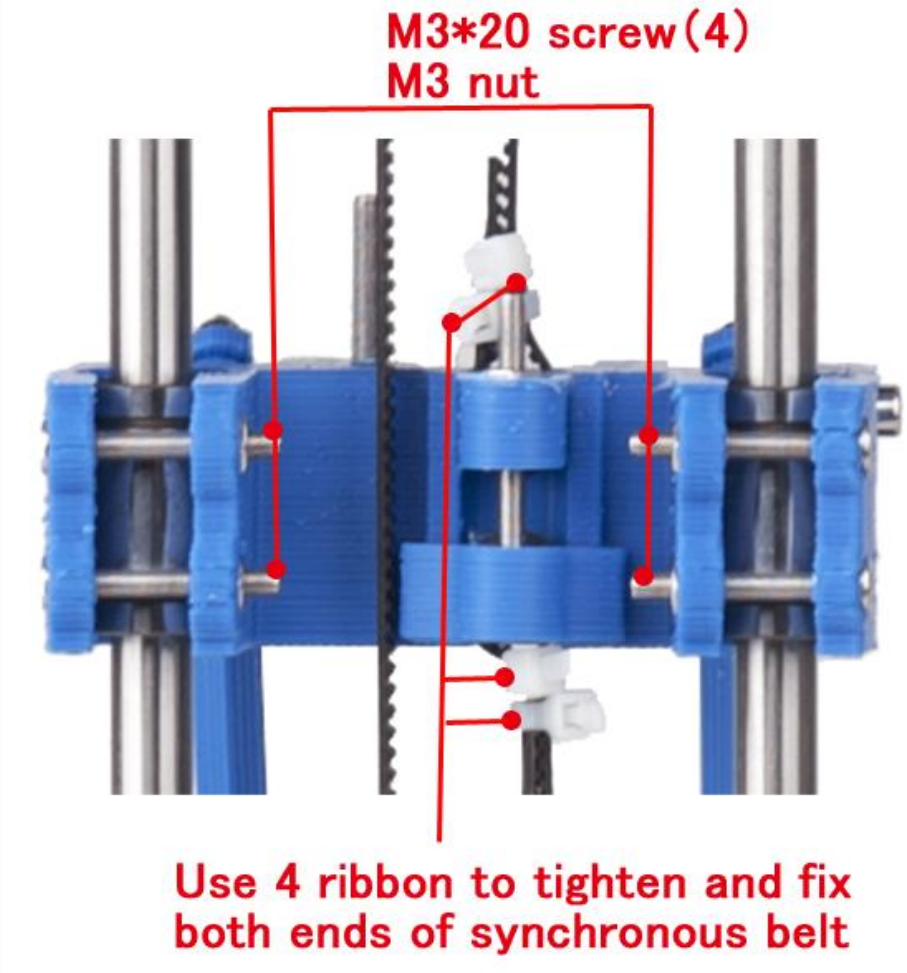


4. Assemble the printing support plate.

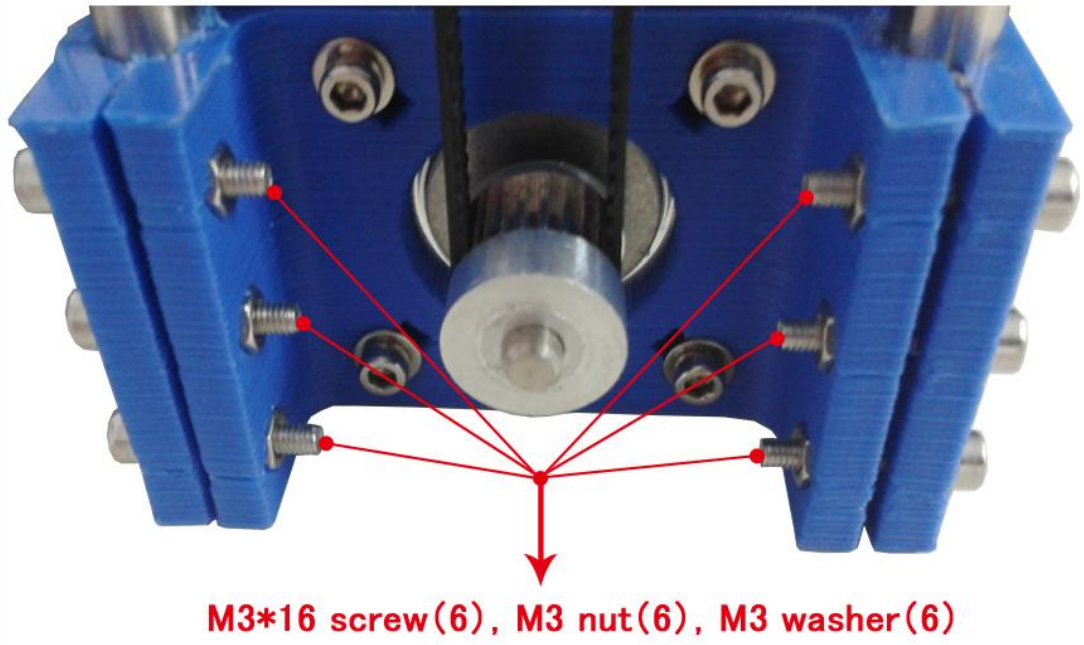


5. Assemble the synchronous belt.

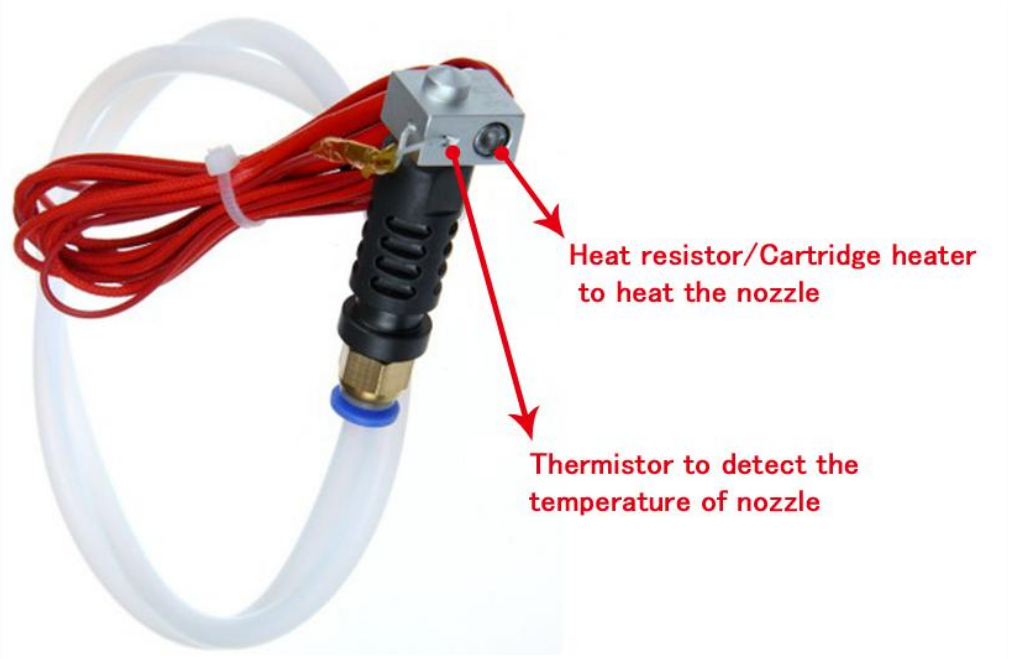


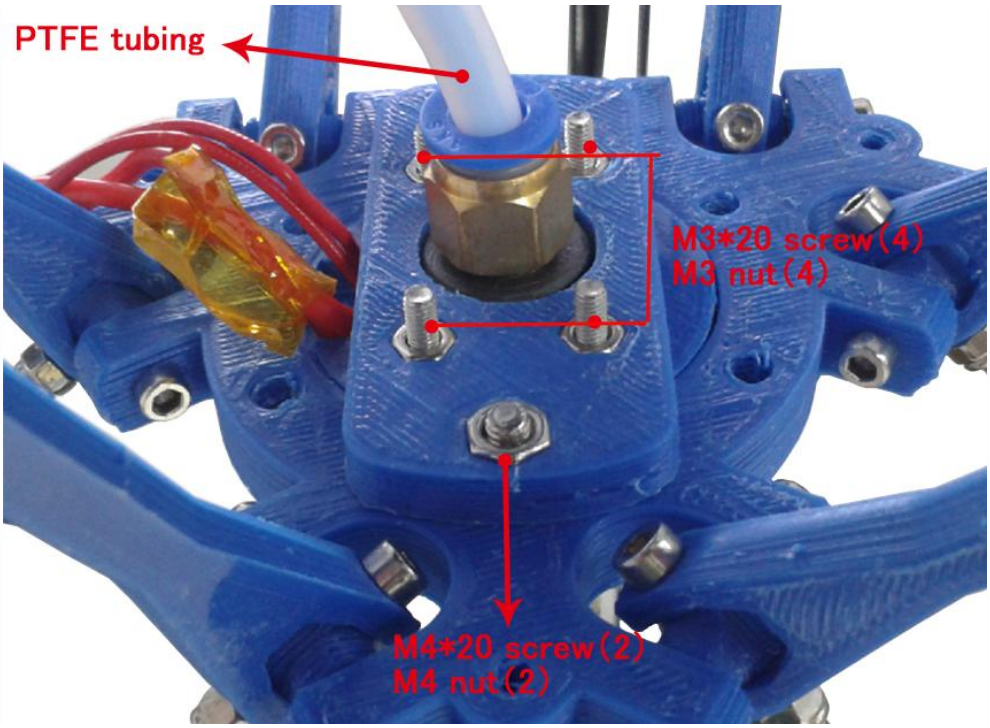


6. Tighten the polish rods.

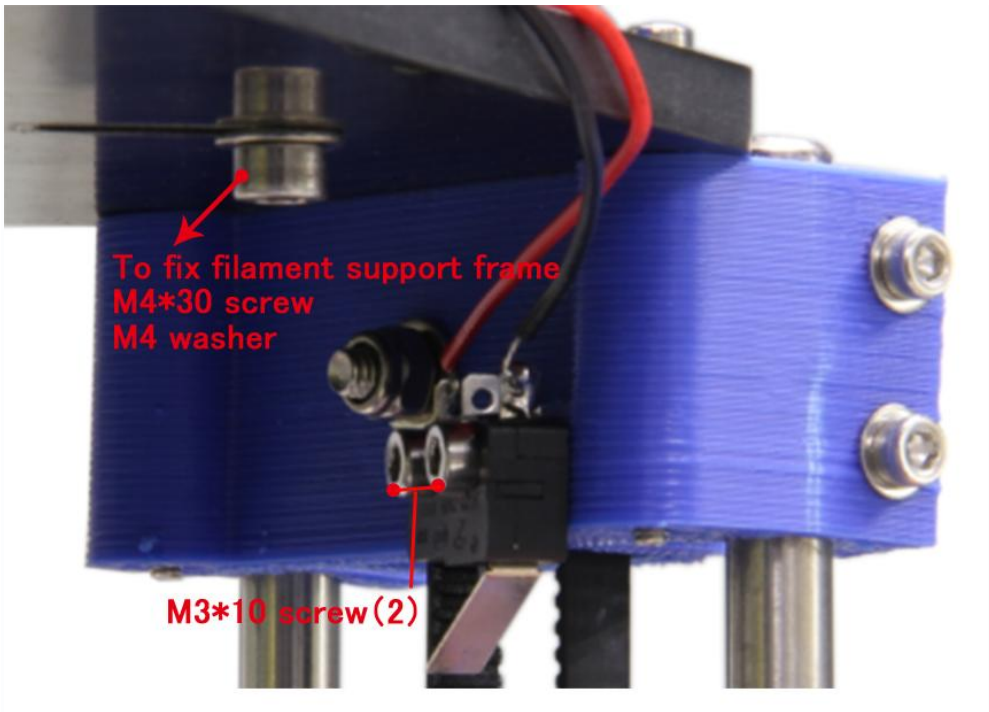


7. Assemble the nozzle.

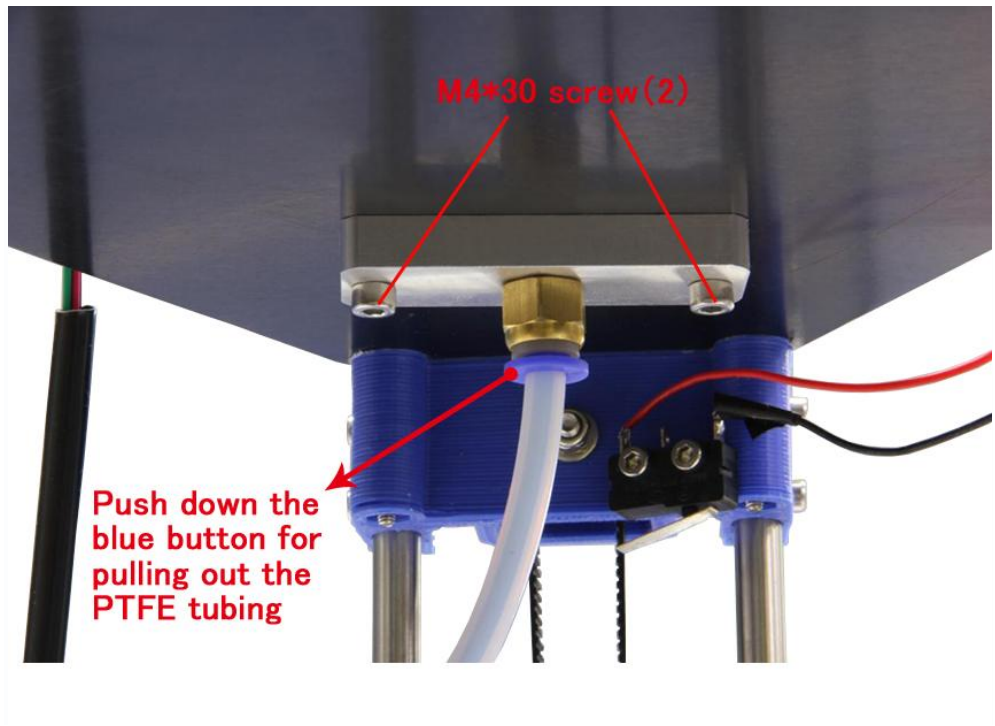


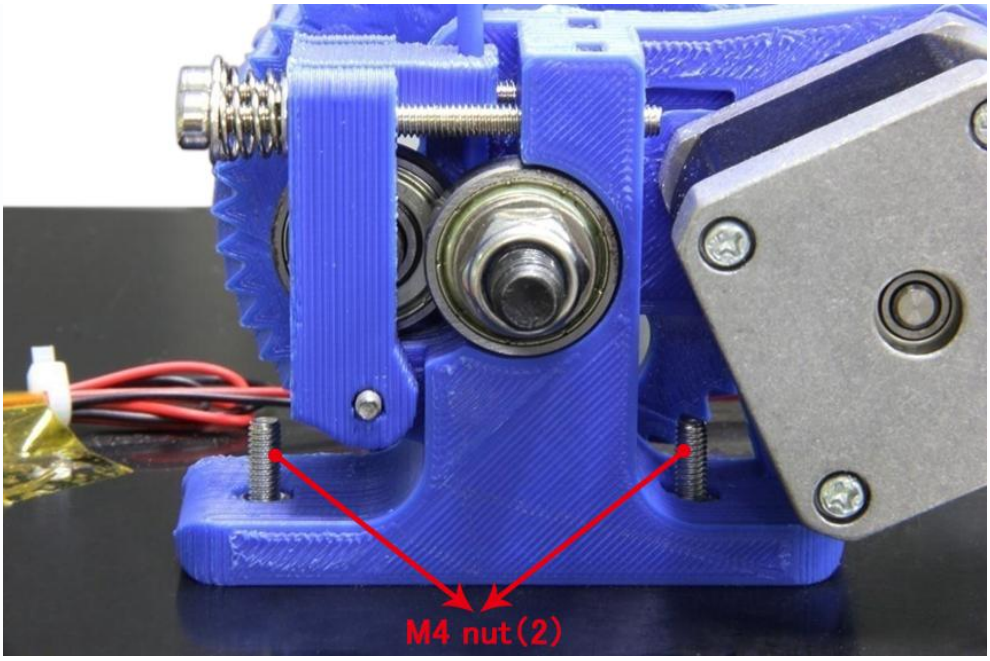


8. Assemble the end stop.

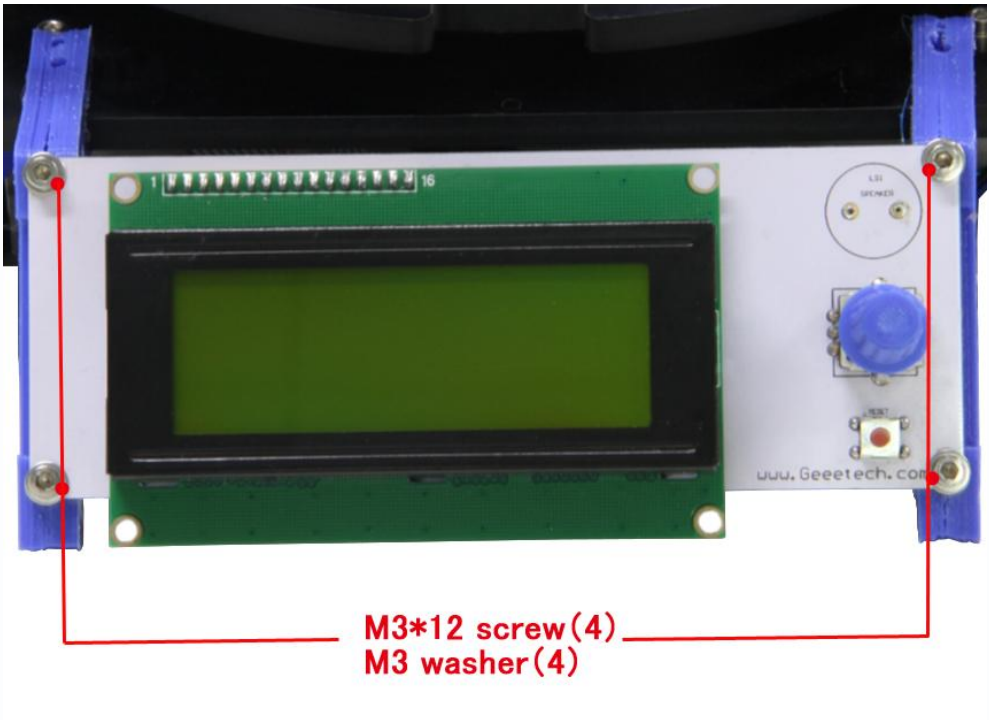


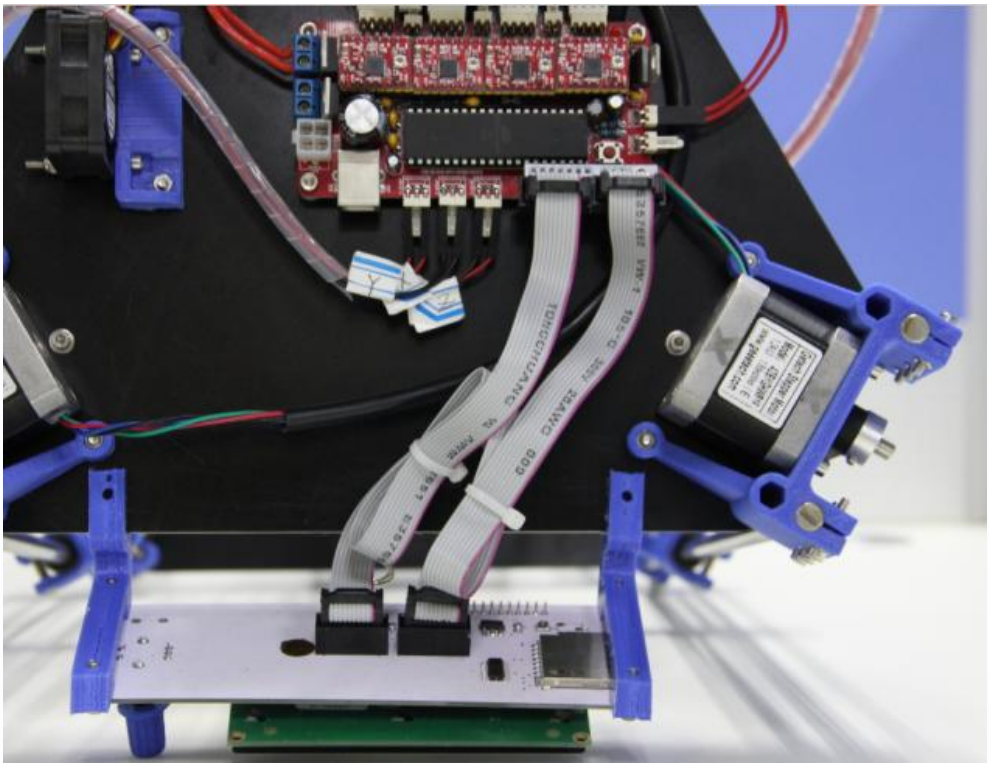
9. Fix the extruder.



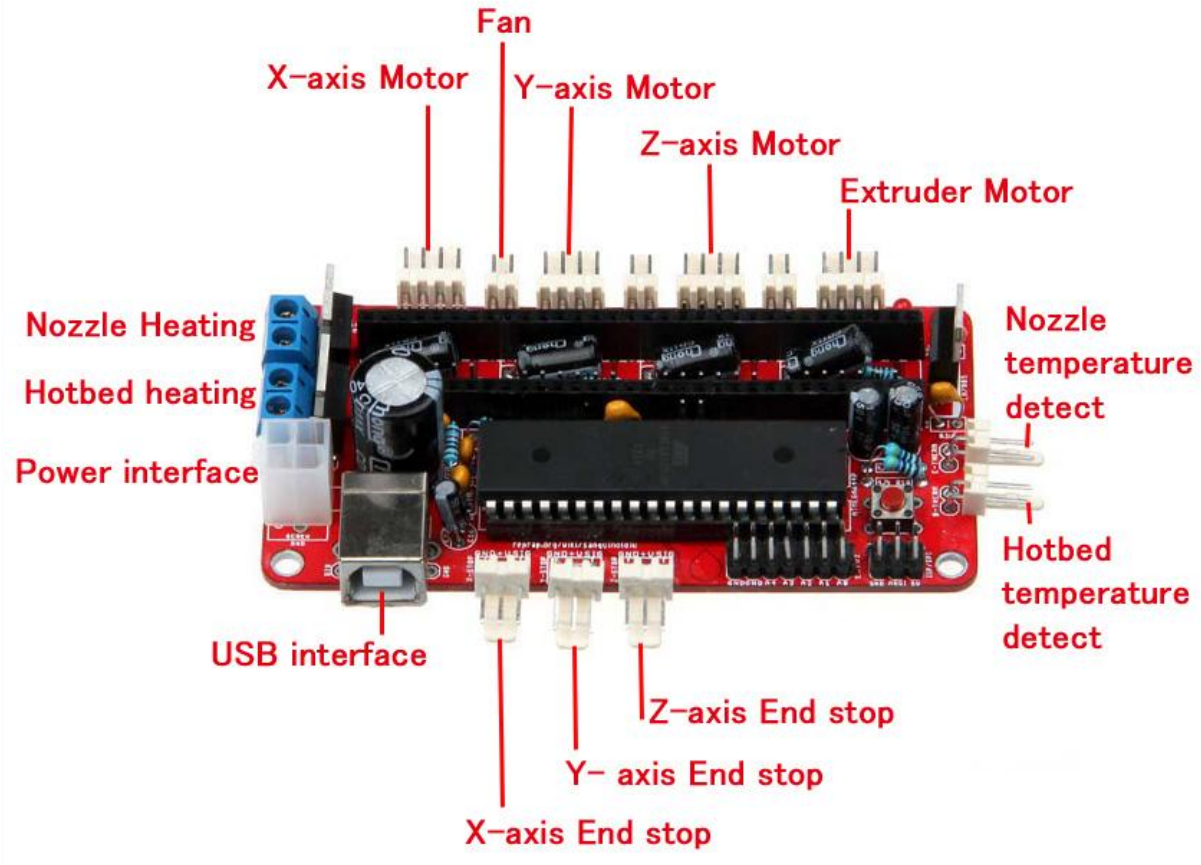


10. Assemble the LCD controller





11. Wiring


Fan
X-axis Motor
Y-axis Motor
Z-axis Motor
Extruder Motor
Nozzle Heating
Hotbed heating
Power interface
Nozzle temperature detect
Hotbed temperature detect
USB interface
Z-axis End stop
Y- axis End stop
X-axis End stop

12. Complete machine