

MICROSMT PNP-V3 assemble manual

Ver 2.1

2023-09-06

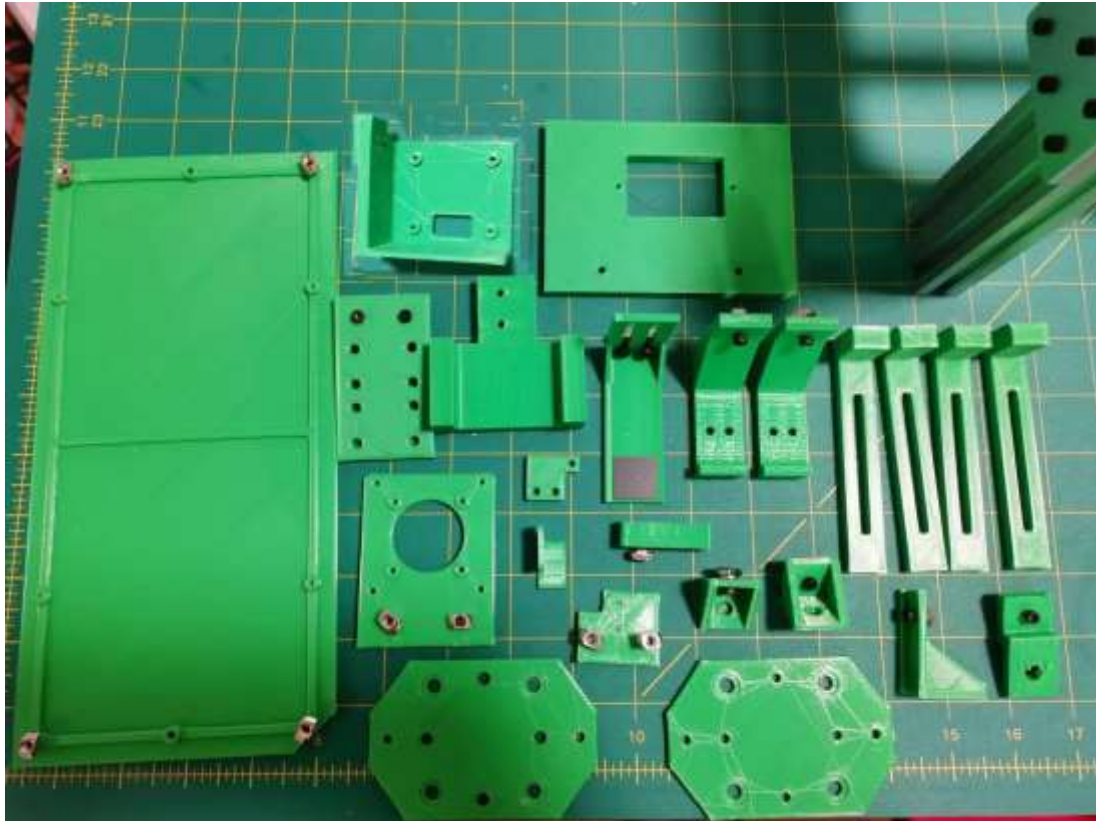
Please download and read the other two documents at the same time

[microsmt_PNP_V3_frame Installation diagram.pdf](#)

[microsmt_pnpboard_v1.7_manual.pdf](#)

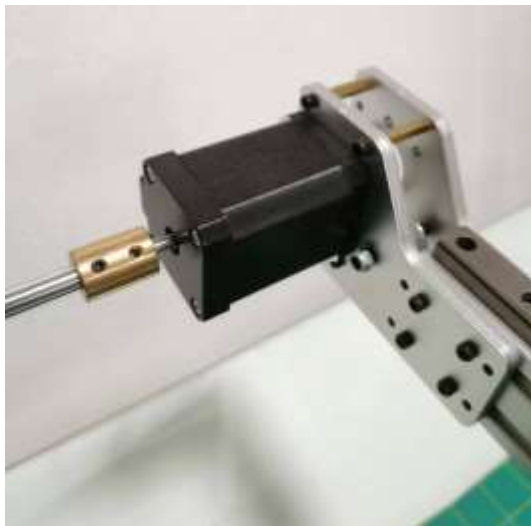
Technical support bingluo@microsmt.com.cn

STEP 1: Print all green 3D parts



Note: total of 19 accessories need to be printed. Please refer to the 3D drawing folder.

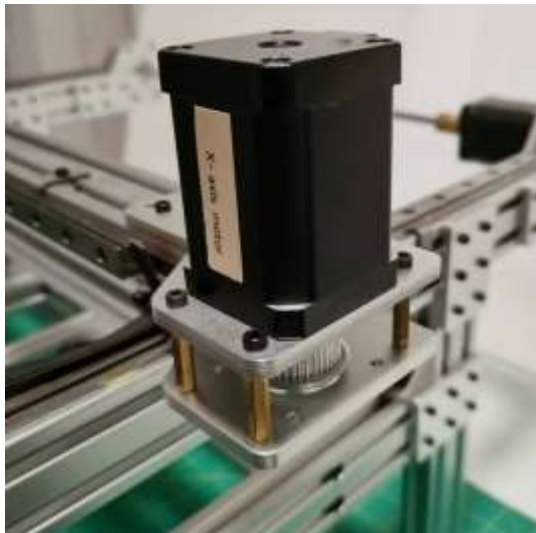
STEP 2: Installing Y-axis stepper motor





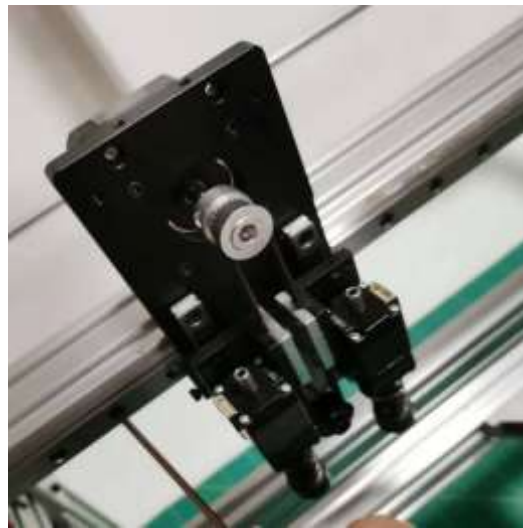
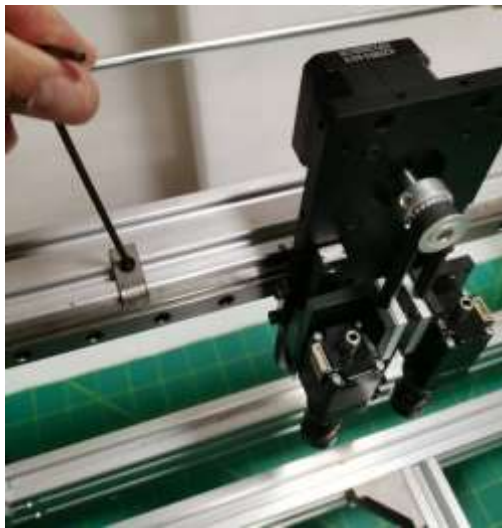
Note: 1: Only one bearing is needed, spare for extra bearings

STEP 3: Installing X-axis stepper motor



STEP 4: Installing mounter head

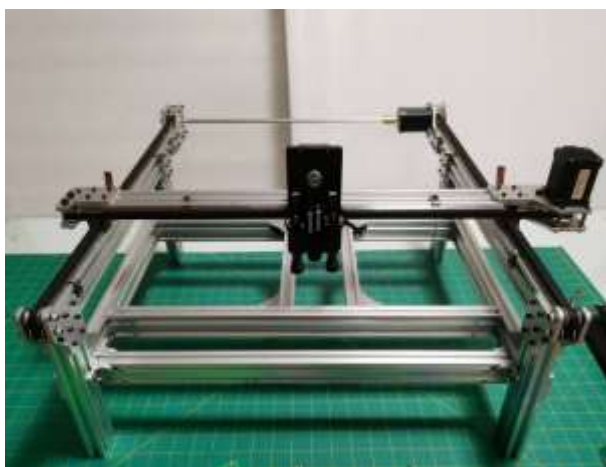
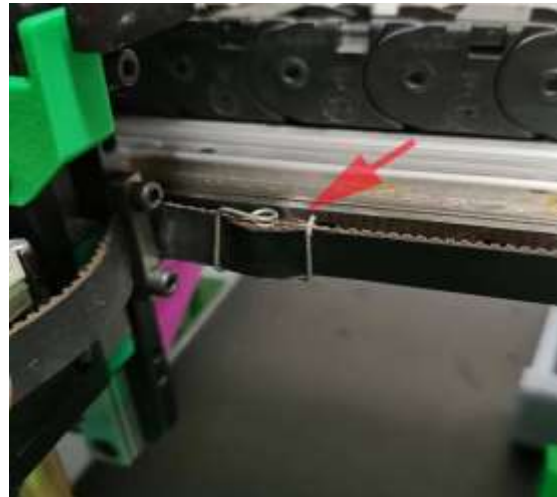
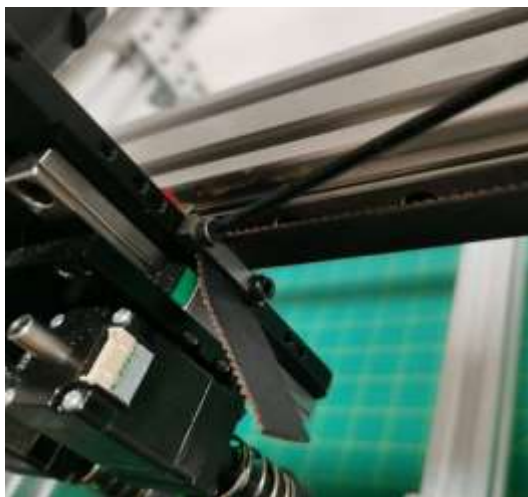
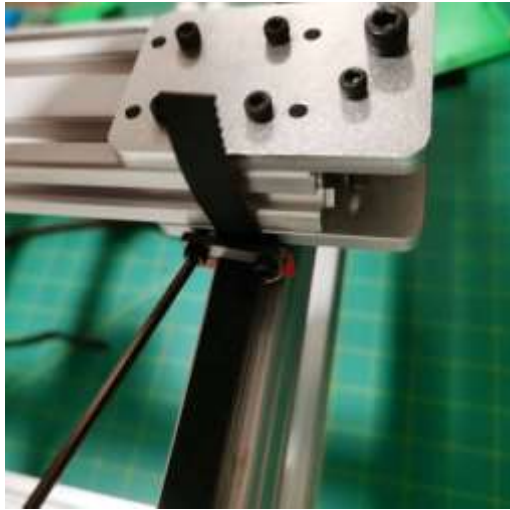
Note:use stainless steel sheet to center the guide rail.



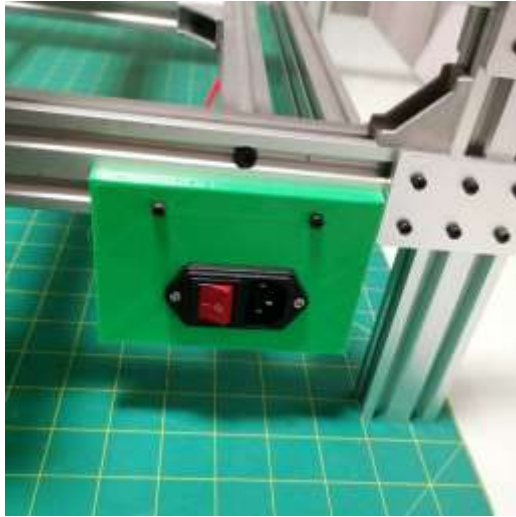
STEP 5 : Installing belt

Note: 1:The belt must be tensioned, otherwise the accuracy will be affected

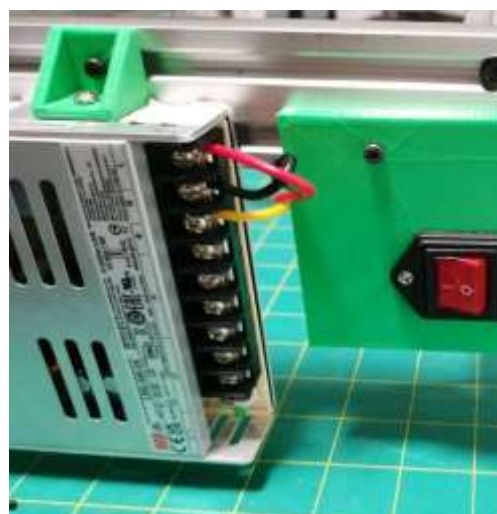
2: Belt tensioner must be used



STEP 6 : Installing the AC power socket

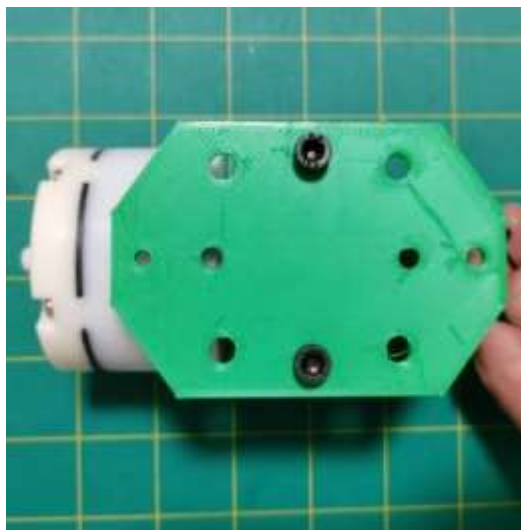


STEP 7 : Installing 24V switching power supply, The switching power supply can be switched between 110V-220V, with a default voltage of 220V.

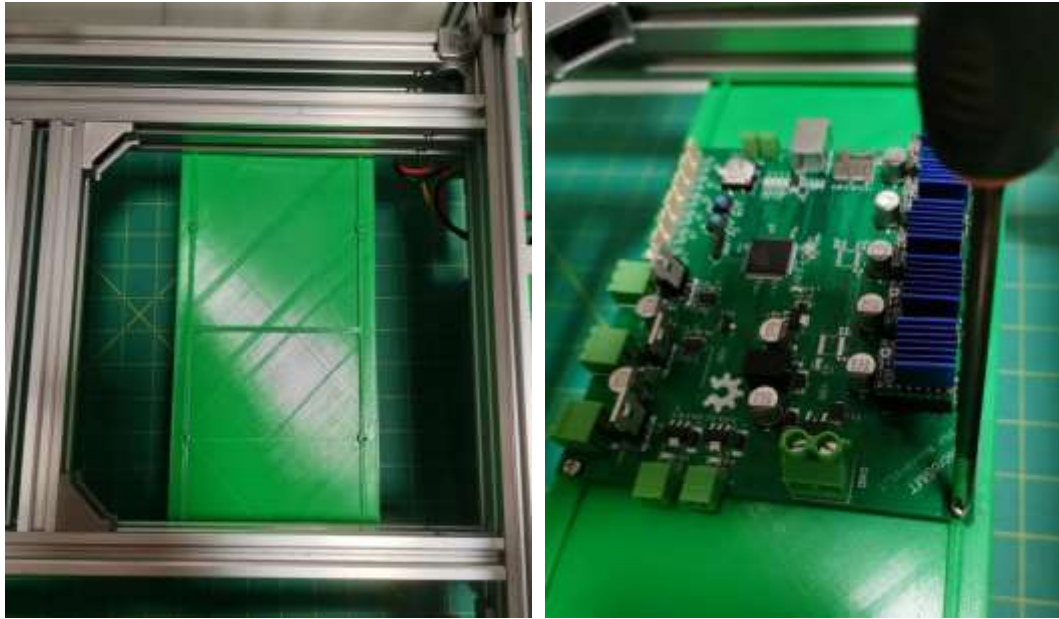




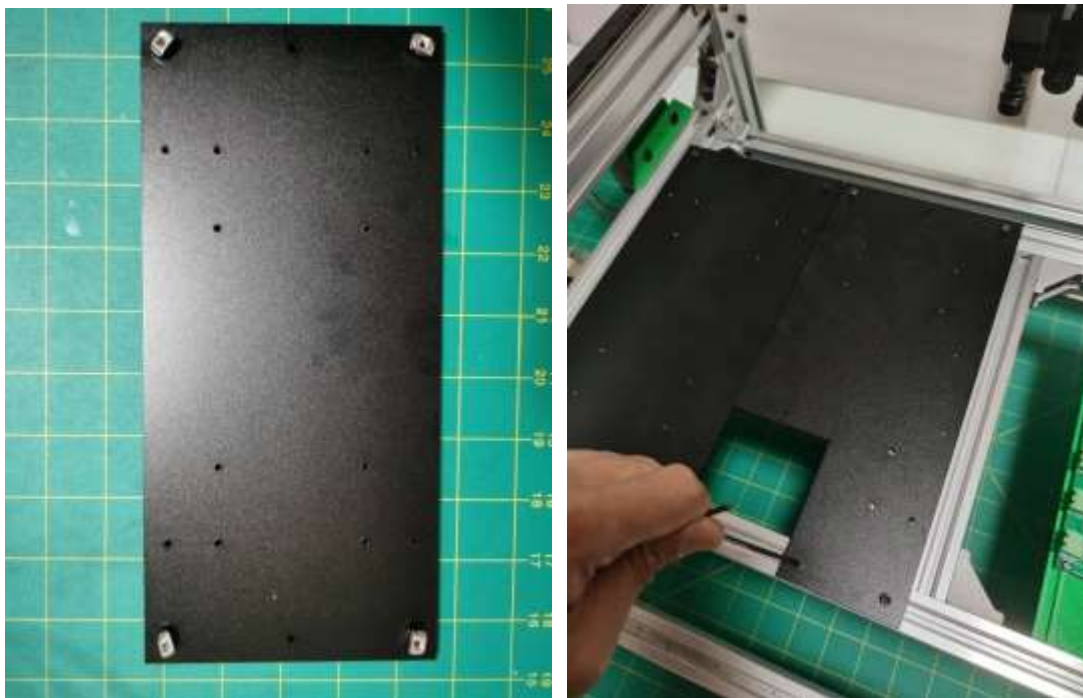
STEP 8 : Installing Vacuum pump



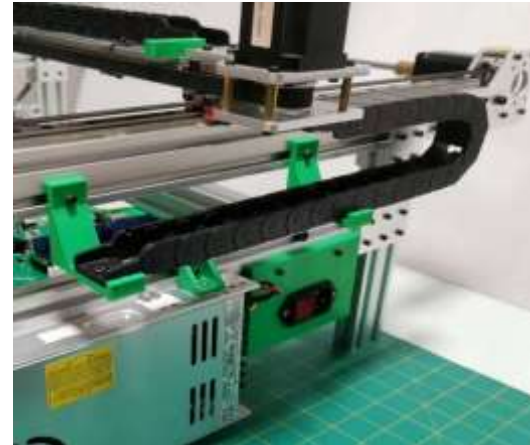
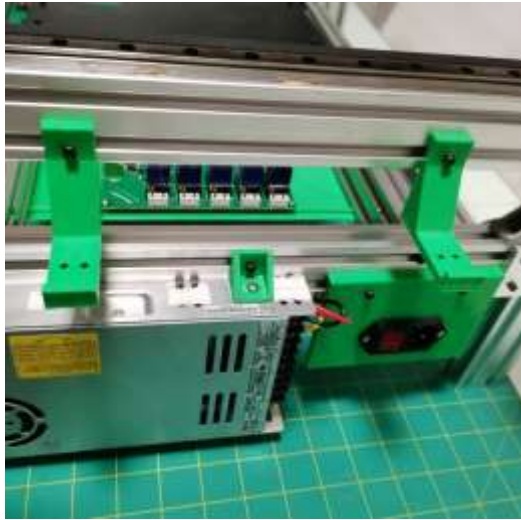
STEP 9 : Installing motherboard



STEP 10 : Installing aluminum alloy platform



STEP 11 : Installing Y-axis tank chain

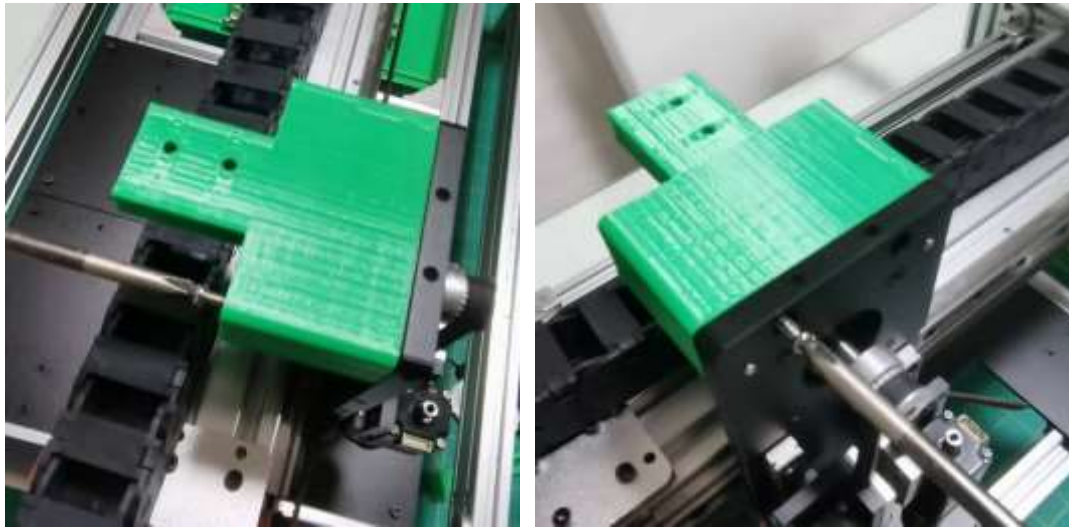


Note: 1:Here, part of the plastic should be cut to form a hole, because the X axis wire will enter the Y axis tank chain from here..

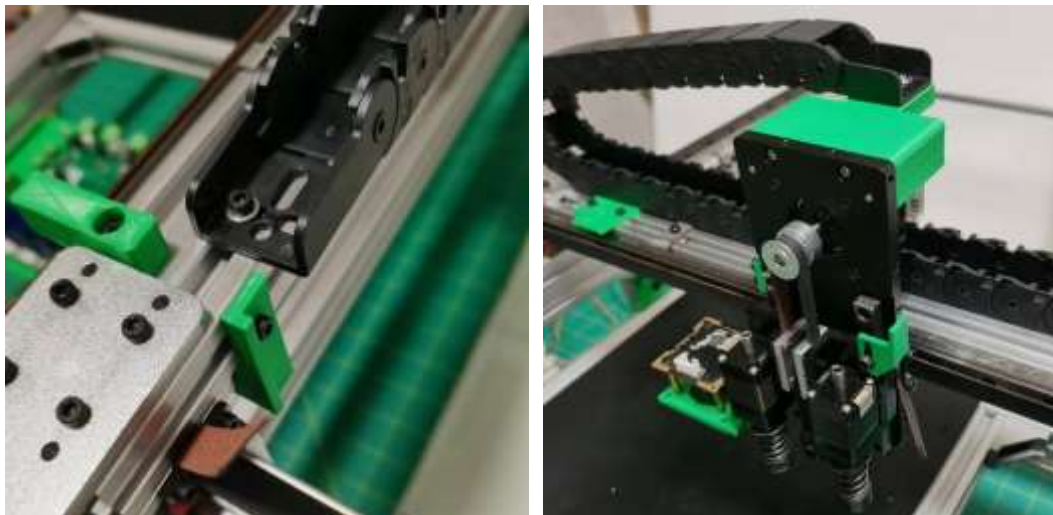


2:The length of tank chain can be adjusted according to actual needs.

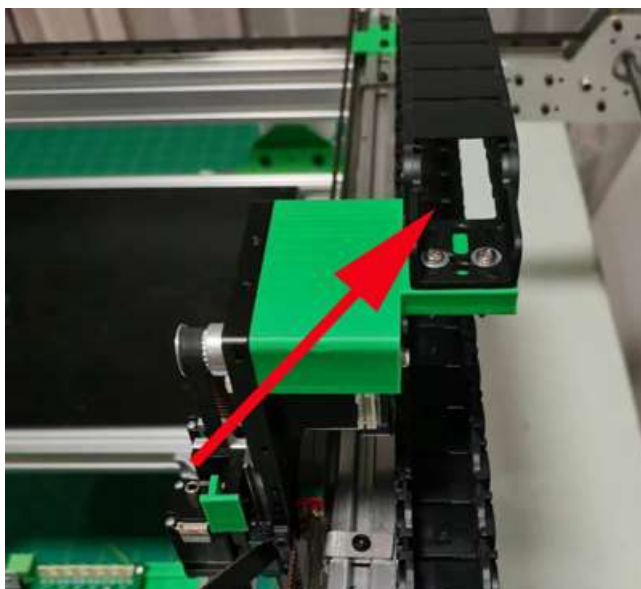
STEP 12 : Installing the Z-axis motor cover plate



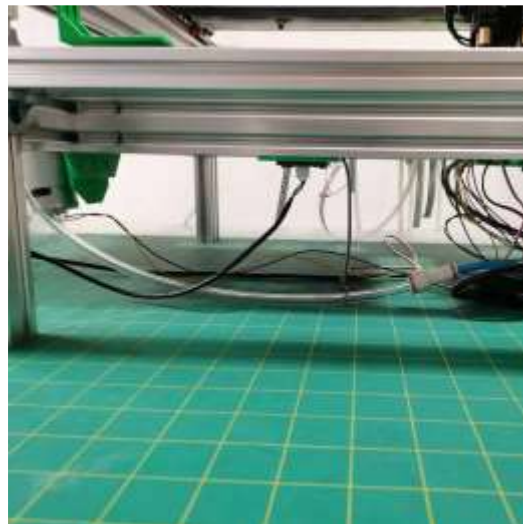
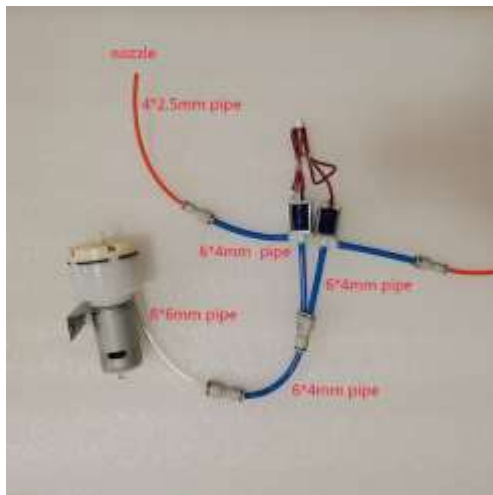
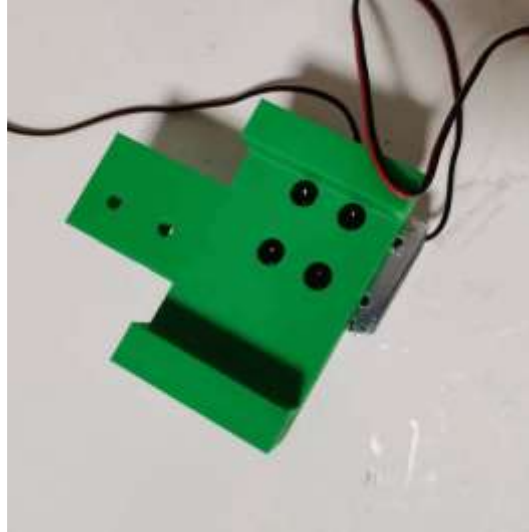
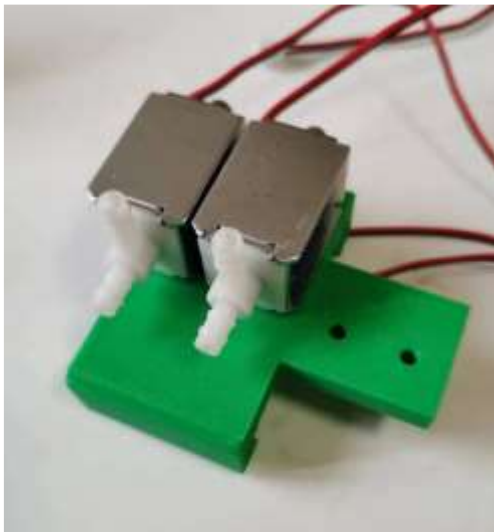
STEP 13 : Installing the X-axis tank chain



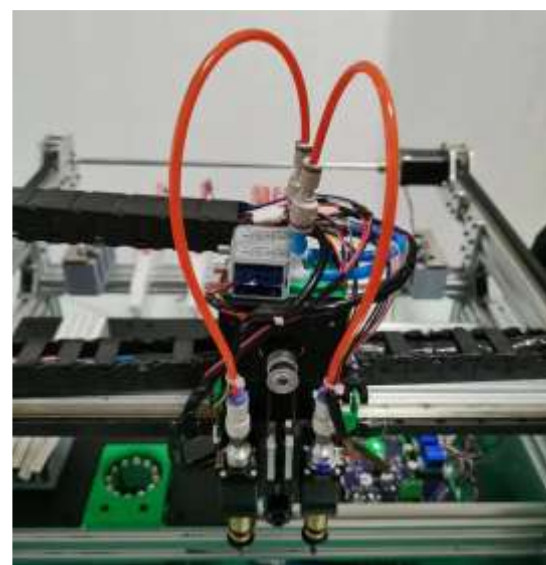
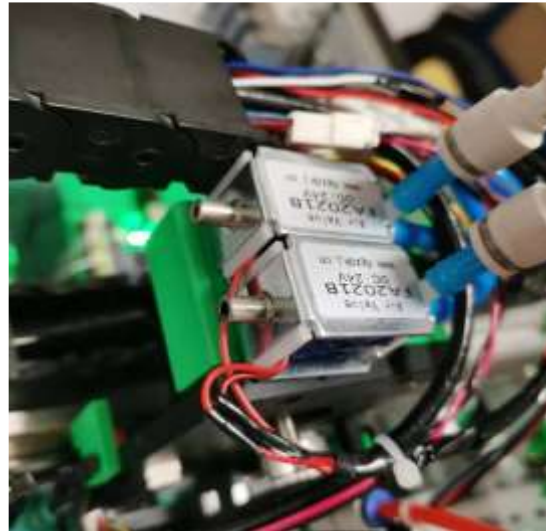
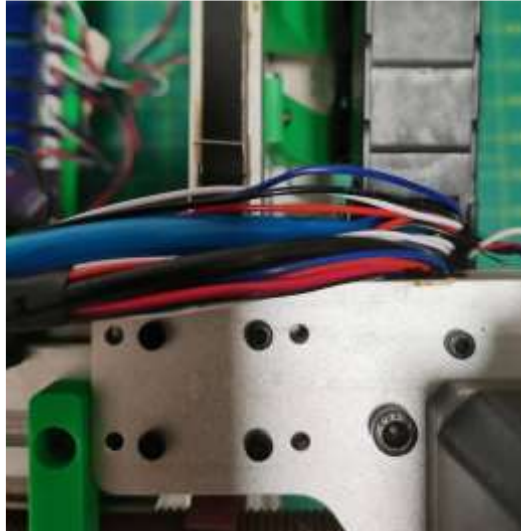
Note: 1.turn this connector upside down. The wire will come out from this hole.



STEP 14: Installing the solenoid valve and connect the PU pipe



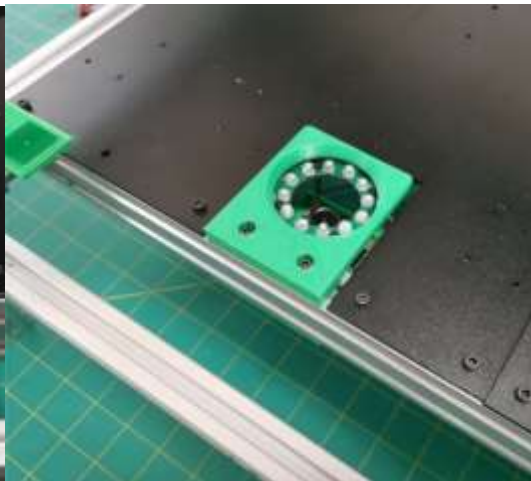
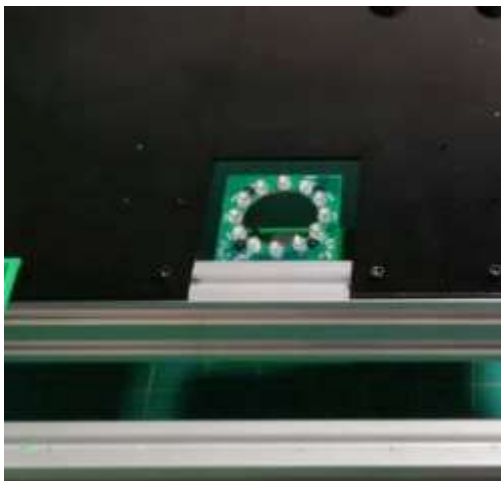
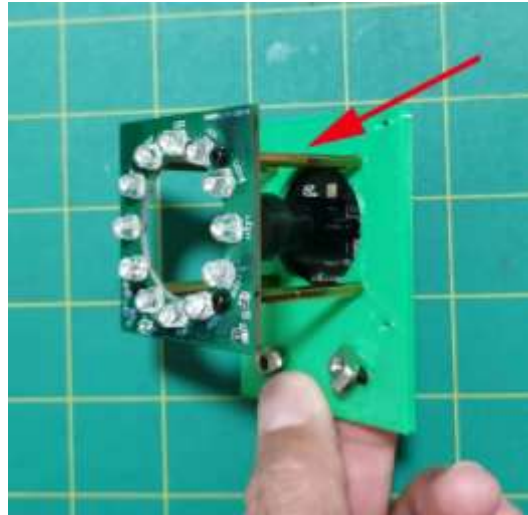
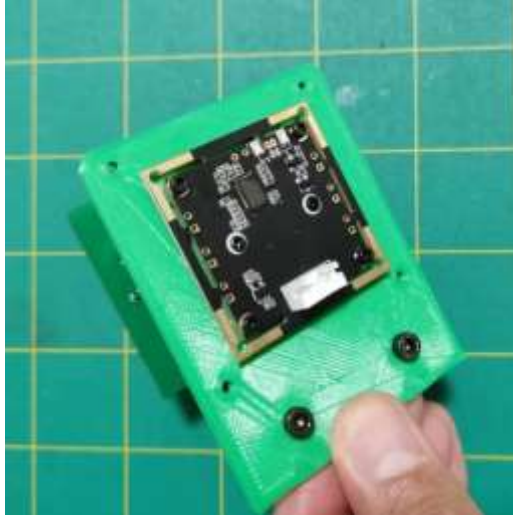
Note: Here is a demonstration of the connection method of PU tube, please ignore other wires.



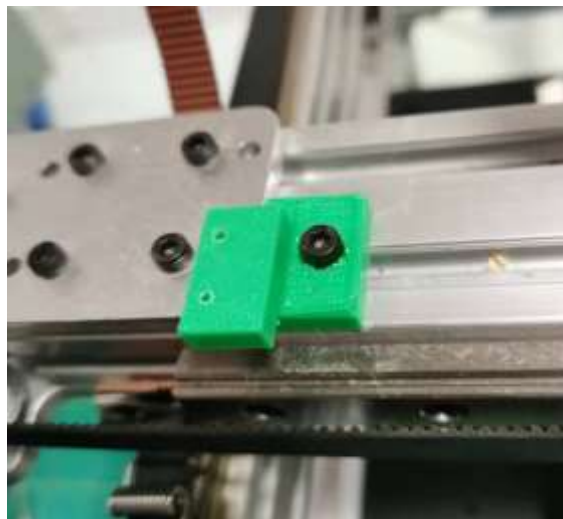
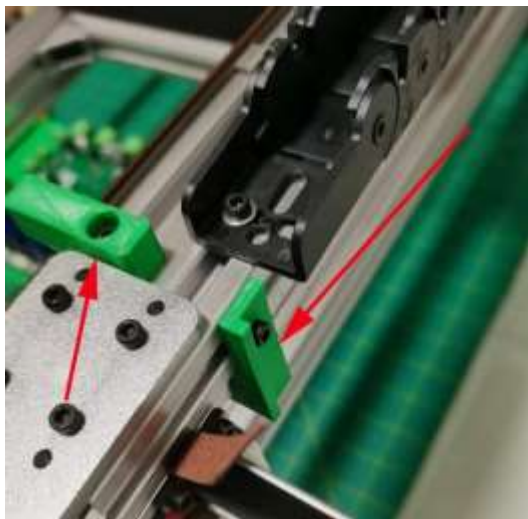
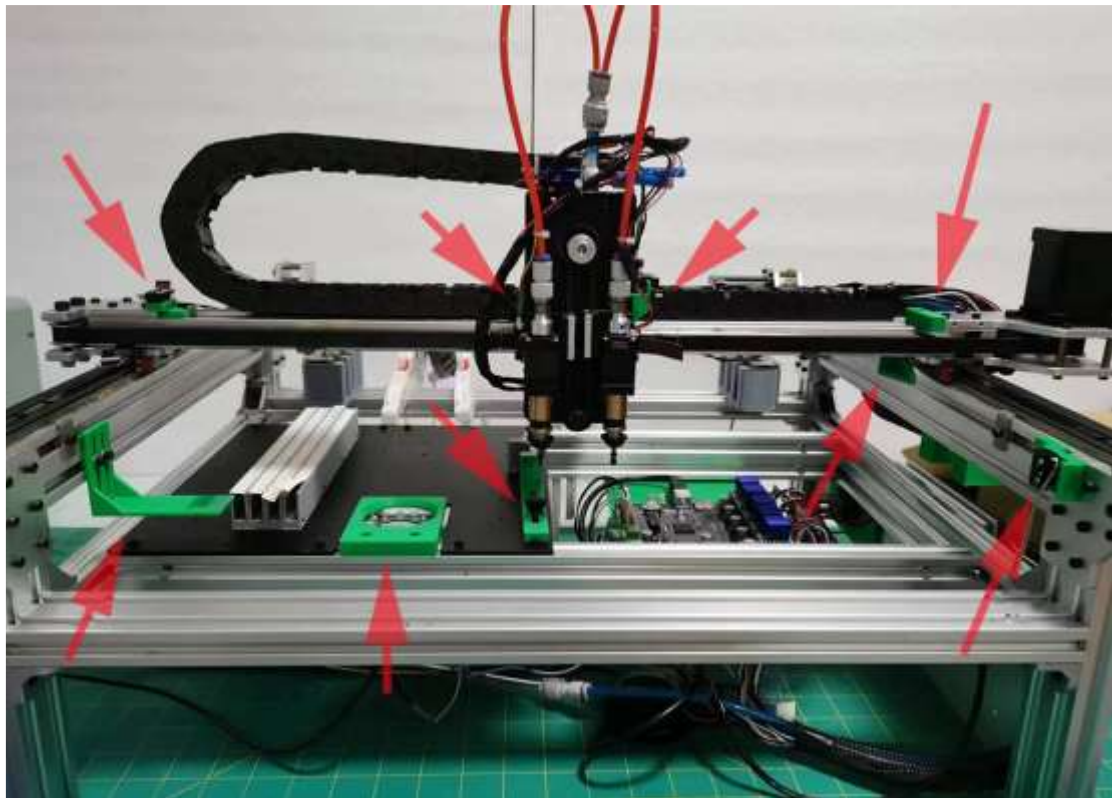
STEP 15 : Installing the bottom camera

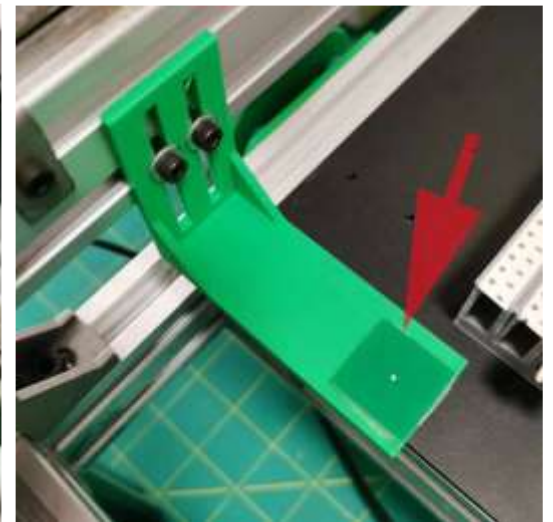
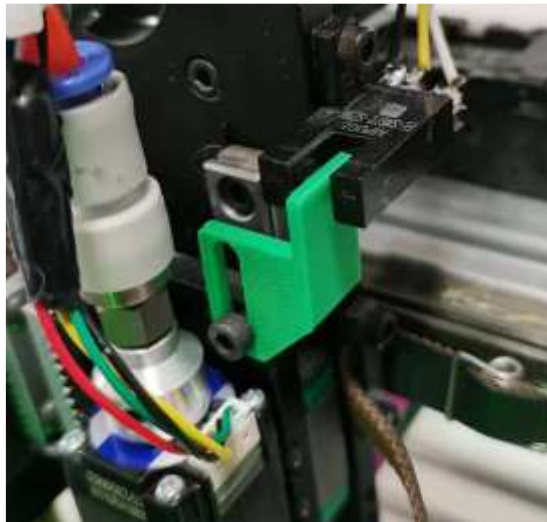
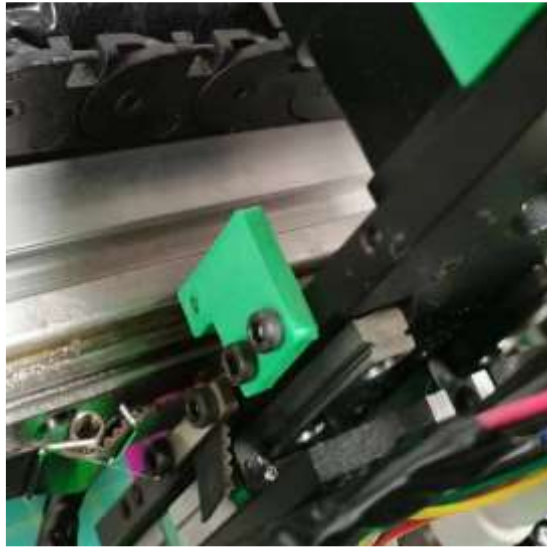
Note: 1: The camera must be installed horizontally, otherwise the accuracy will be affected

2: The total length of copper column is 37mm, which is connected by two sections.



STEP 16 : Install the remaining 3D printing accessories

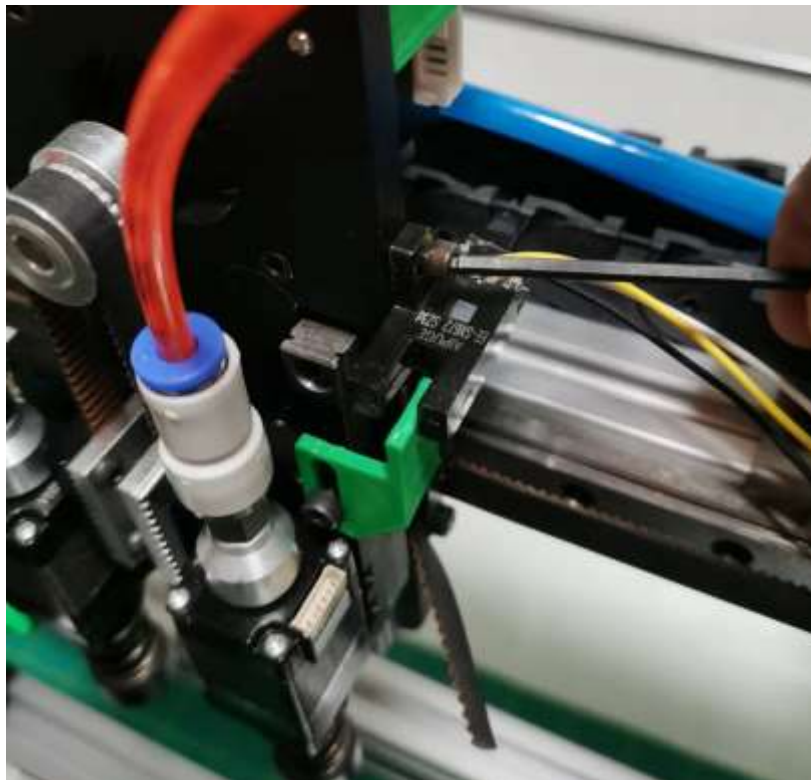
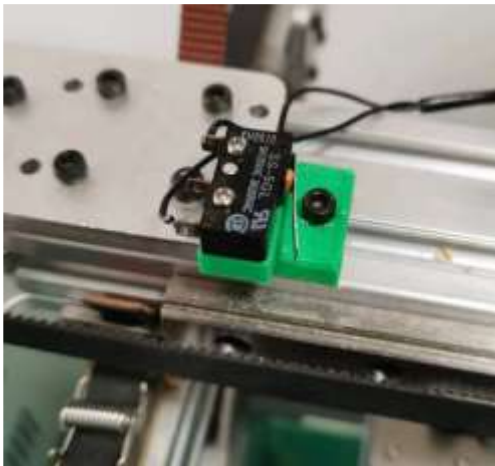




Note: 1: The height of Zero point shall be the same as that of PCB. Otherwise, opennpn cannot measure its diameter correctly and recognize it.

STEP 17: install endstop switch

Note: know the principle of endstop switch and connection mode, please refer to the document [microsmt_pnpboard_v1.7_manual.pdf](#).



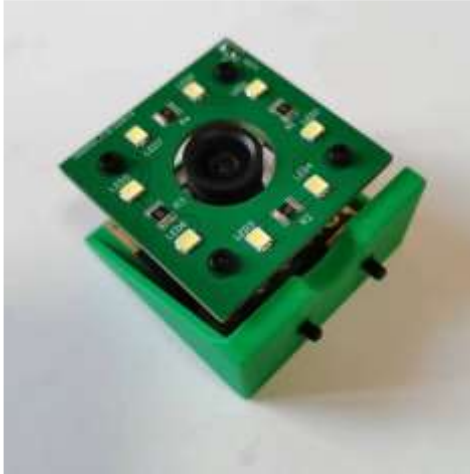
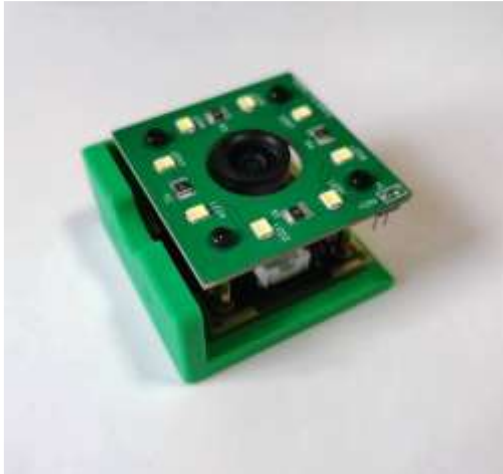
STEP 18: Installing the top camera

Note: 1: the camera must be installed horizontally, otherwise the accuracy will be affected.

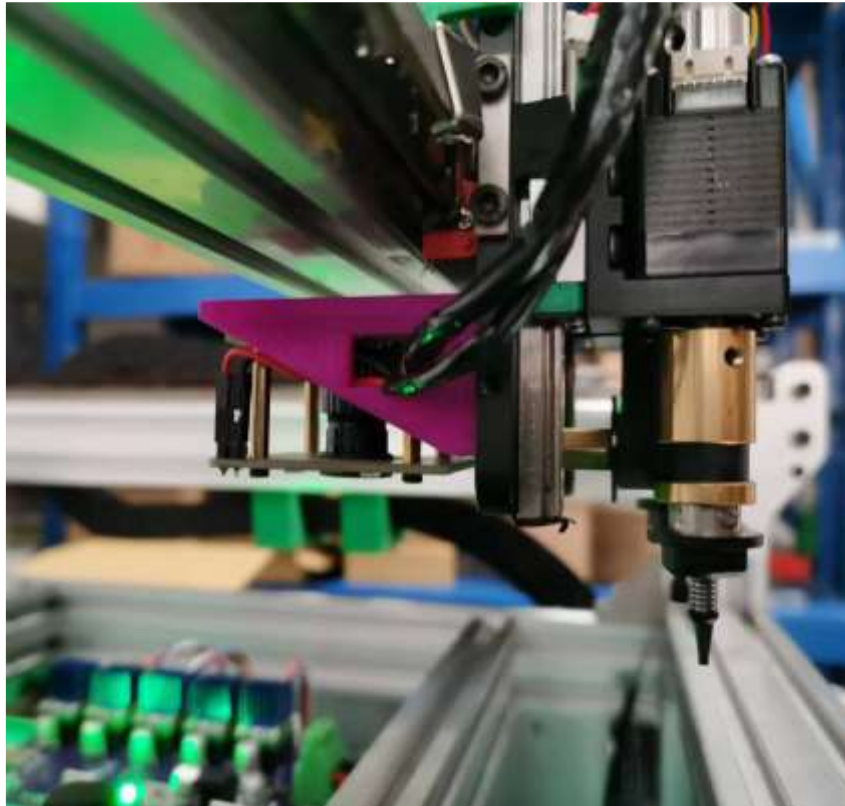
2: Manually rotate the lens to change the focus.

3: The Top camera should be installed last.

4: The top camera or bottom camera cannot be connected to the same USB hub at the same time, as the bandwidth is insufficient



Rendering of Top camera installation complete



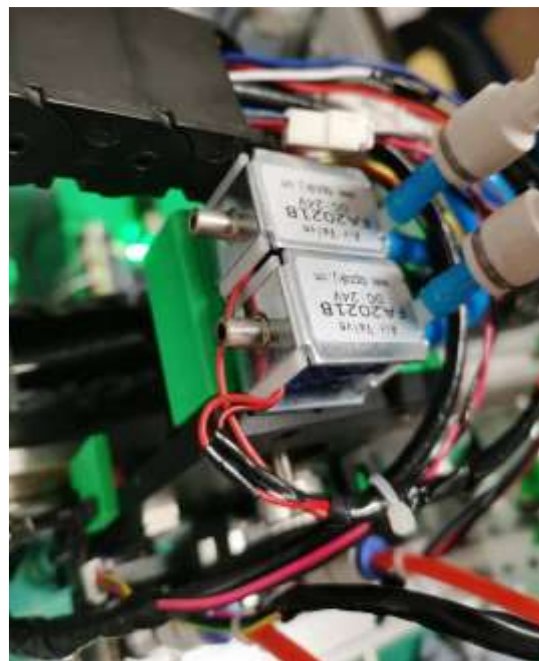
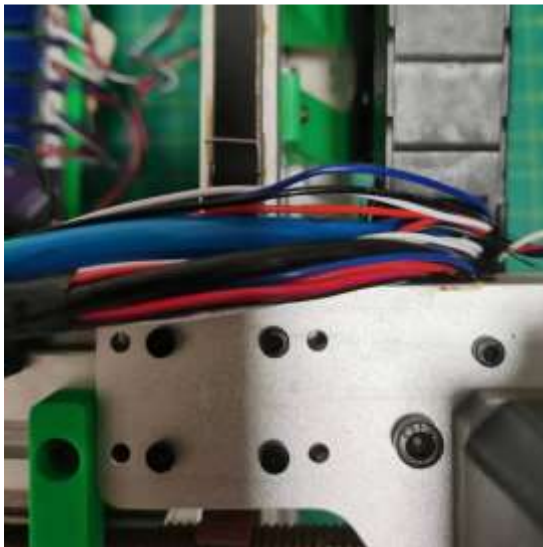
STEP 19 : install cable

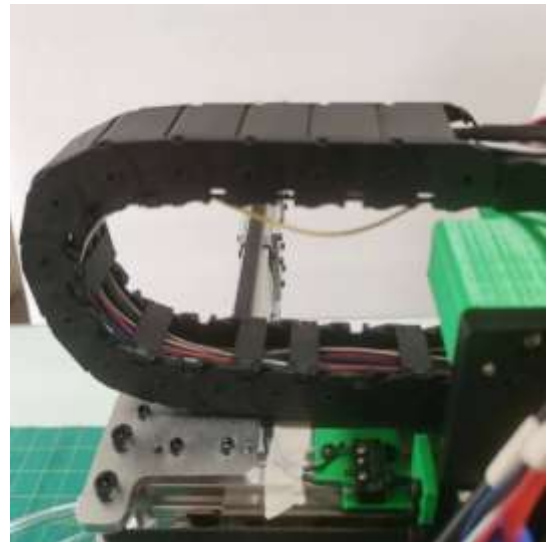
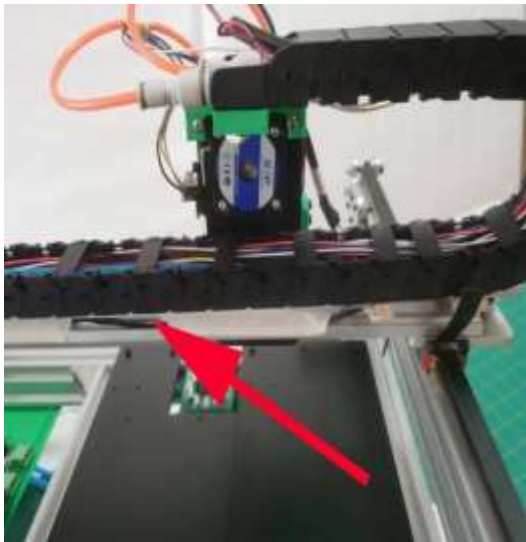
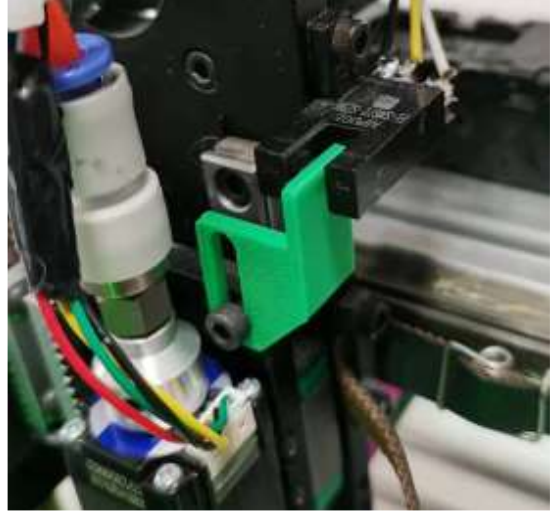
Note: X-axis endstop cable need not put in X-axis tank chain.

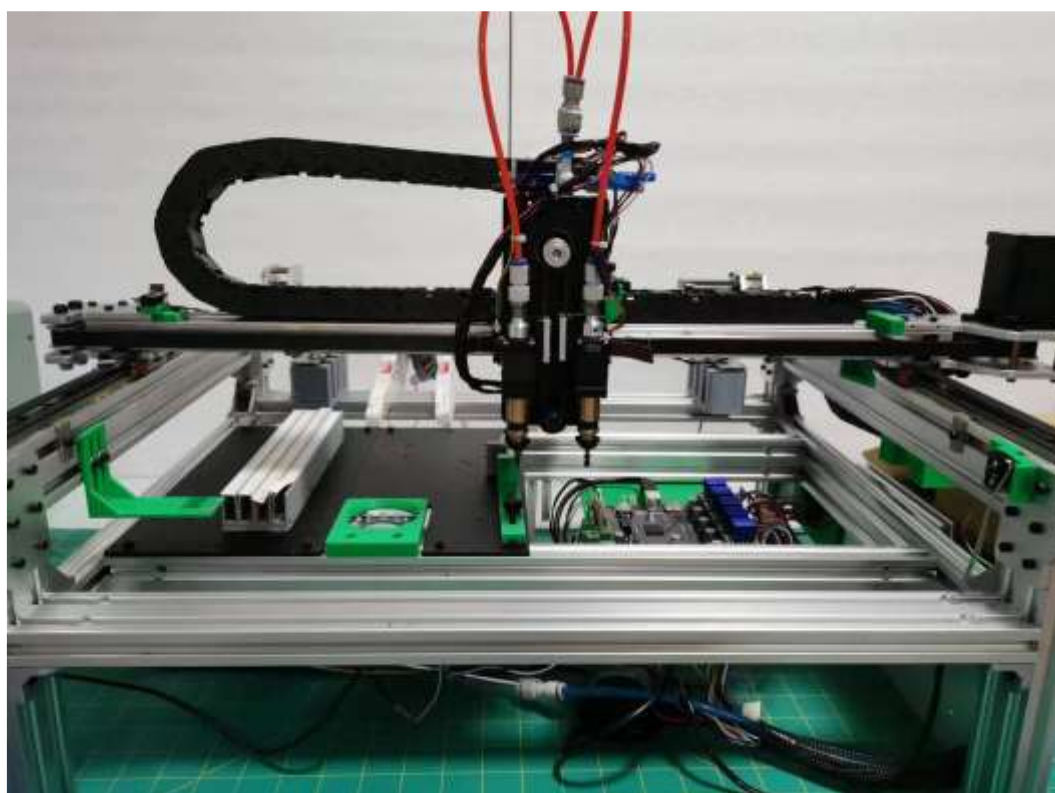
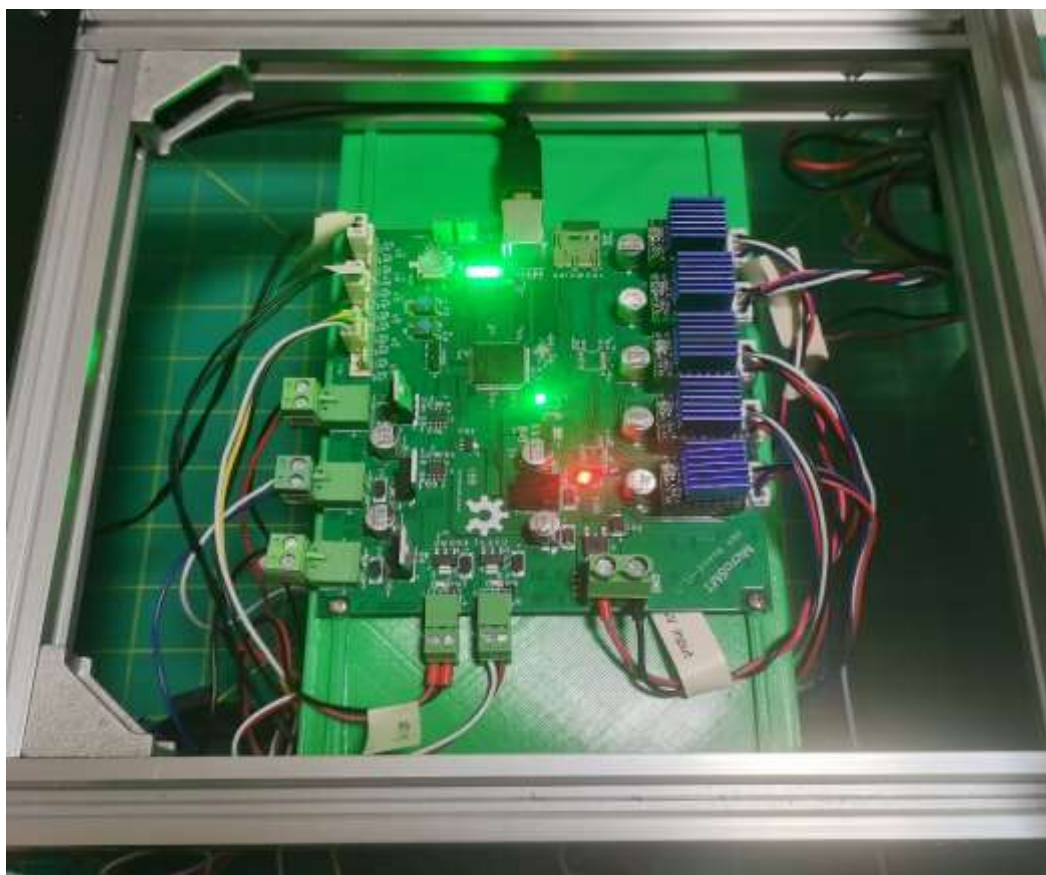
Y-axis endstop cable need not put in all tank chain.

X-axis stepper motor cable need not put in X-axis tank chain.

Y-axis stepper motor cable need not put in all tank chain.







THE END