CNC3018-Assembly Instructions

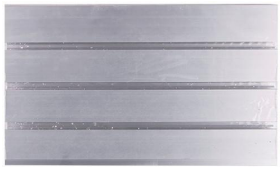
USER MANUAL

3018 Accessory table

序号	Material Name	材料名称	Dimensions	Quantity	Unit
1	Profiles	型材	20*20 36cm	5	Pcs
2	Profiles	型材	20*20 33cm	2	Pcs
3	Profiles	型材	20*20 22cm	2	Pcs
4	Pressure plate	固定压板	/	1	Set
5	Motor gasket	电机垫片	/	2	Slice
6	Z axis	Z轴	/	1	Set
7	Bearing housing (including bearing)	轴承座（含轴承）	LM10UU 10*19*29	4	set
8	Rack support	机架支撑件	/	2	root
9	42 stepper motor	步进电机42BYGH34	1.8°/1.3A/扭矩0.3N/M	2	Pcs
10	ER11 Knife pole	ER11刀杆	5mm	1	Pcs
11	ER11 Chuck	ER11夹头	1/8mm	1	Pcs
12	Flat knife	平底尖刀	30°*0.1	1	Box
13	Pedestal	基座	/	1	Pcs
14	Corner piece	角件	4040	16	Pcs
15	Seat	支座	sk10	8	Pcs
16	Optical axis	光轴	400mm	2	Pcs
17	Optical axis	光轴	330mm	2	Pcs
18	Screw rod	丝杆	400mm	1	Pcs
19	Screw rod	丝杆	320mm	1	Pcs
20	Screw rod fixings (including bearings)	丝杆固定件(含轴承)	/	2	Pcs
21	Inner six angle screw	内六角螺丝	M5*10	70	Pcs
22	Inner six angle screw	内六角螺丝	M6*12	10	Pcs
23	T-nut	T型螺母	M5	70	Pcs
24	T-nut	T型螺母	M6	10	Pcs
25	CD	光盘	/	1	Pcs
26	Control Board	三轴控制板	/	1	Pcs
27	Power Supply	电源	24v5A	1	Pcs
28	Workbench	铝型材工作台	30*18	1	Pcs
29	Inner hexagon spanner	内六角扳手	1.5/2/2.5/3/4/5	6	Pcs
30	Blue Couplings	铝合金联轴器	5-8	3	Set
31	Brass Couplings	黄铜联轴器	3.175*5	1	Set
32	Hexagon socket head screw	内六角螺丝	M5*8	4	Pcs
33	Message nut (including spring)	消息螺母（含弹簧）	T8 pitch 2 lead 4	2	Set
34	Pingsuke	平介	M5	45	Pcs
35	White isolating column	白色隔离柱	M5	4	Pcs
36	Heat Sink	散热片	/	3	Pcs
37	Inner six angle screw	内六角螺丝	M3*6	10	Pcs
38	Stepper motor line	步进电机线	60cm	3	Pcs
39	775 Motor Line	775电机线	/	1	Pcs
40	USB Line	USB线	/	1	Pcs
Optional	☐500mW	☐2500mW	☐3500mW		
	☐5500mW	☐15W			
	☐Laser cable激光连接线	☐glasses眼镜			

检验人_____

Part 1: Package List

Name	Size	Picture	Qty
Aluminum	220mm		2
	360mm		5
	330mm		2
	Mesa		1
Corner connector	2028		16
Slide nut	20M5		60
	30M5		10
Axis support base	SK10		8
Linear axis	330mm*10mm		2
	400mm*10mm		2
Lead screw	320mm		1
	400mm		1

Name	Size	Picture	Qty
Copper nut			2
Stepper motor mounting plate			2
Coupling	5--8		2
Stepper motor	42		2
Spindle			1
ER11 and Holder			1
Spindle motor line			1
4Pmotor line			3

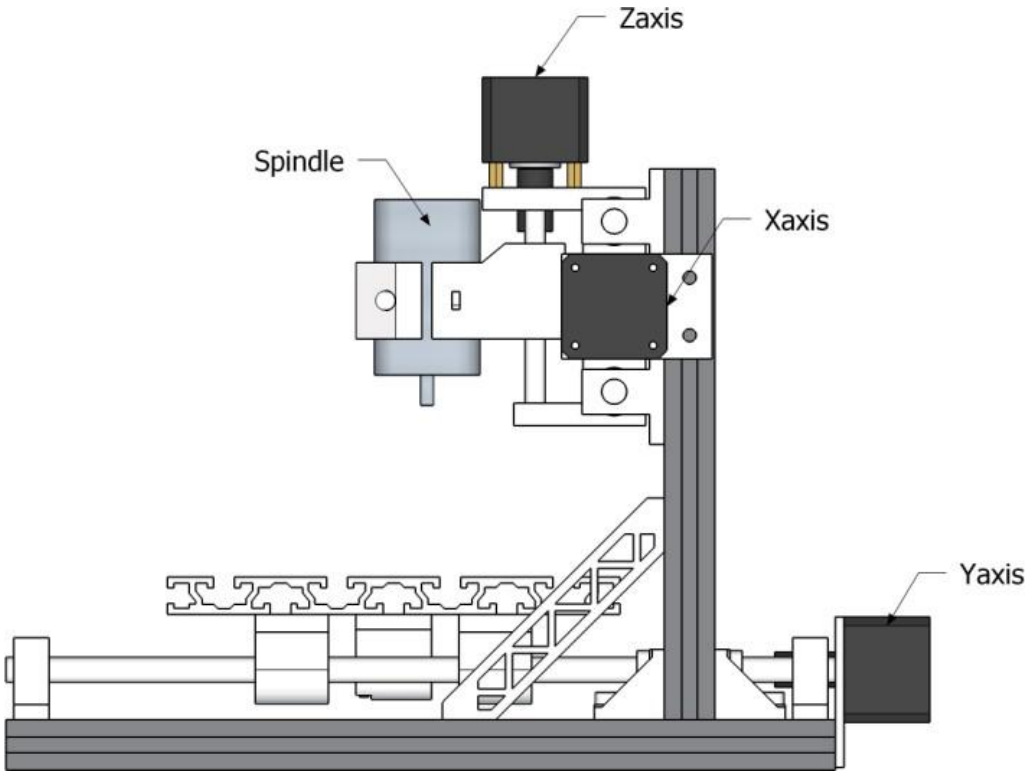
Name	Size	Picture	Qty
24V power supply			1
Control board			1
USB cable			1
X-Z axis assembly			1
X-axis bearing base			1
Y-axis bearing base			1
Y-axis slider			4
Y-axis nut seat			1
Cable-stayed connector			2

Name	Size	Picture	Qty
Spring			2
Bolt	M5*10		73
	M6*12		10
	M5*8		4
	M3*6		8
Flat washer	M5		36
Allen wrench	1.5mm,2.0mm, 2.5mm,3.0mm, 4.0mm,5.0mm		6*1
Plate clamp			1
Cable tie			1
Milling cutter			10
Copper chuck			1

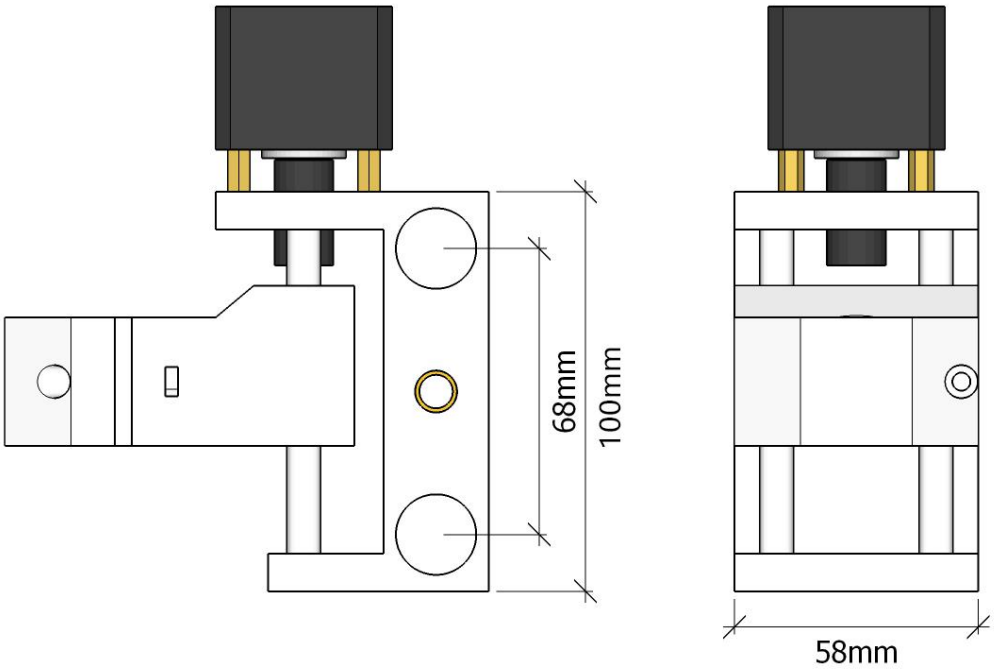
Part 2: Assembly Instruction

1. Component:

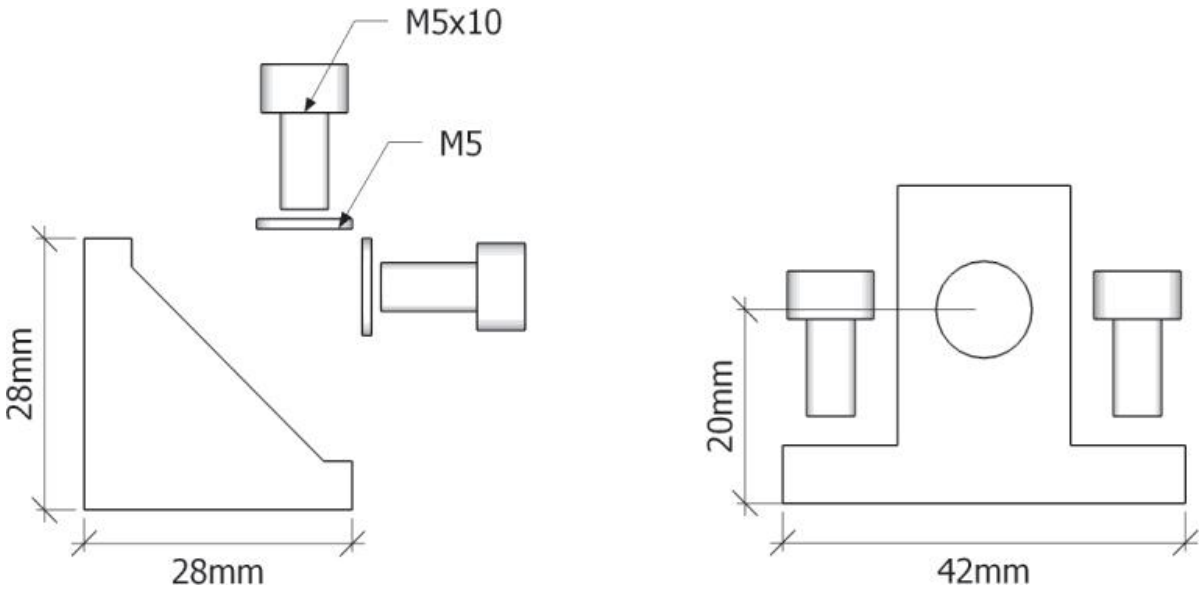
a. Motor



b. Corner connector, Axis support base SK10, Bolt M5*10, Flat washer M5

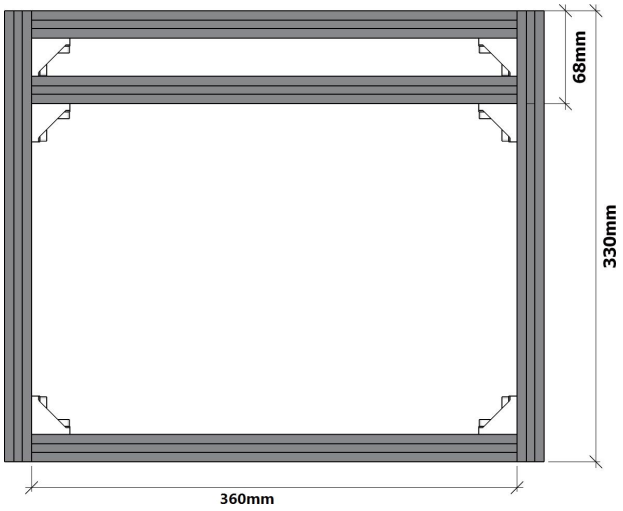


c.

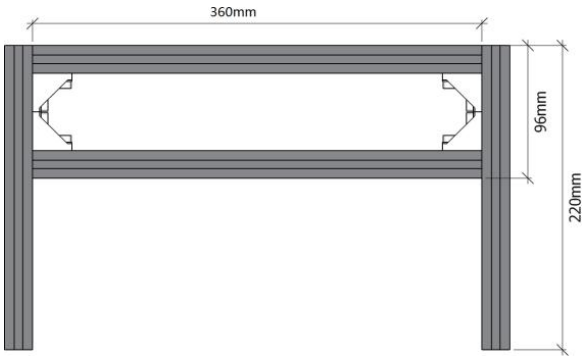


2. Frame Installation

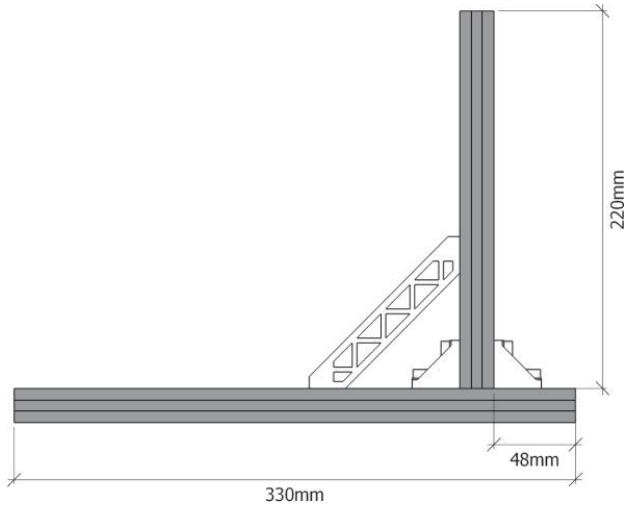
a. Base frame: 330mm×2, 360mm×3, Corner connector×6, Bolt M5*10×12, Flat washer M5×12, Slide nut 20M5×12



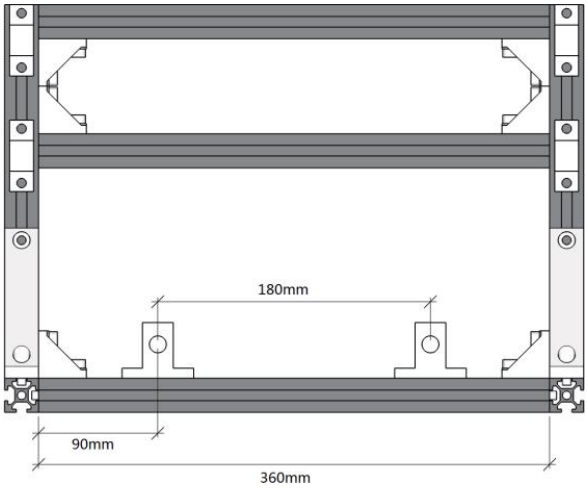
b. Top frame: 220mm×2, 360mm×2, Corner connector×4, Bolt M5*10×8, Flat washer M5×8, Slide nut 20M5×8



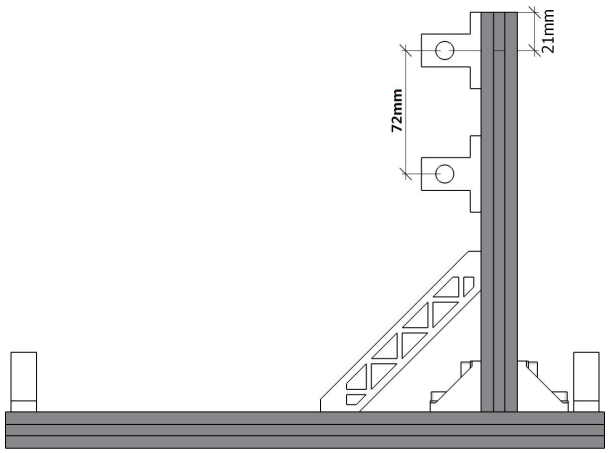
c. Frame installation: Corner connector×6, Bolt M5*10×12, Slide nut 20M5×16, Flat washer M5×12, Cable-stayed connector×2, Bolt M5*8×4



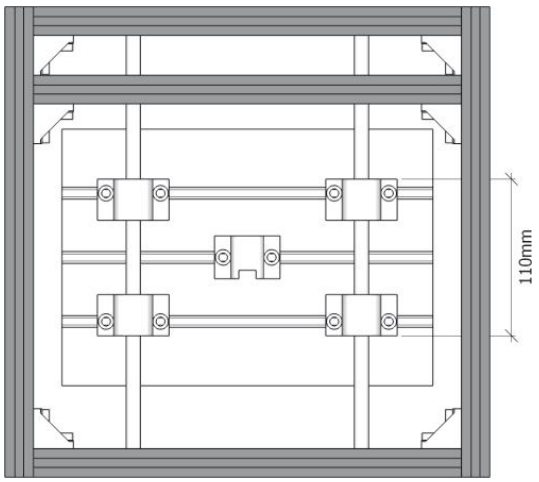
d. Y-Axis support base dimensions: SK10x4, Slide nut 20M5×8 (Front view)



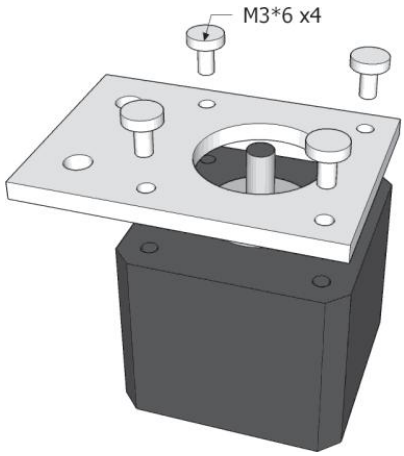
e. X-Axis support base dimensions: SK10x4, Slide nut 20M5×8(Side view)

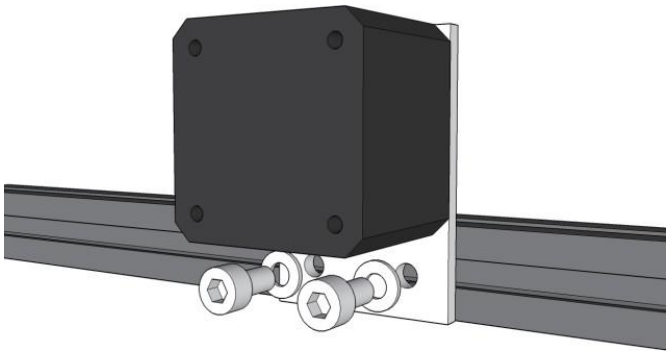


f. Y-axis installation: Bolt M5*10×10, Slide nut 30M5×10, Y-axis slider x4, Y-axis nut seat x1, 330mm Linear axis x2, Mesa×1 (Elevation view)

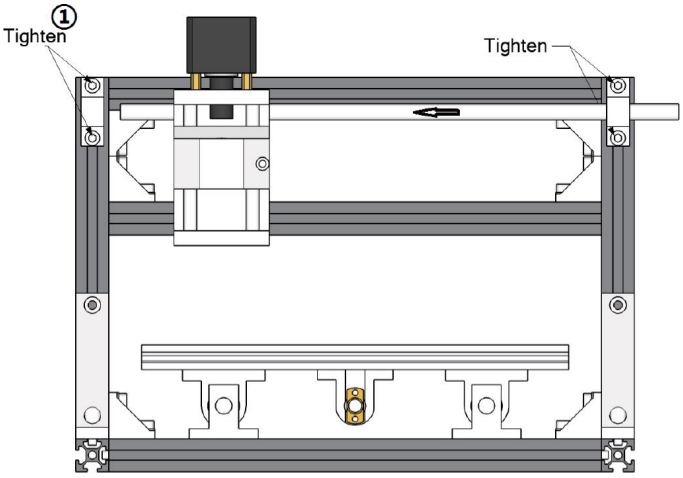


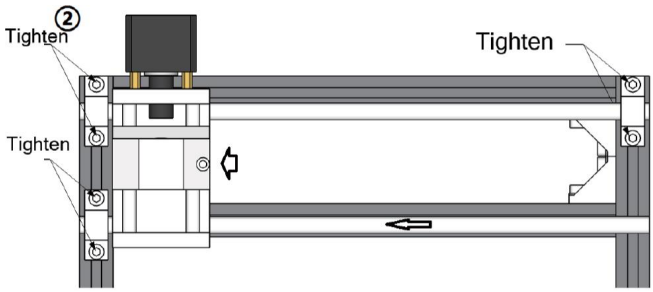
g. X/Y-axis Stepper motor mounting: Stepper motor x2, Stepper motor mounting plate x2, Bolt M3*6 x8, Bolt M5*10×4, Slide nut 20M5×4, Flat washer M5×4

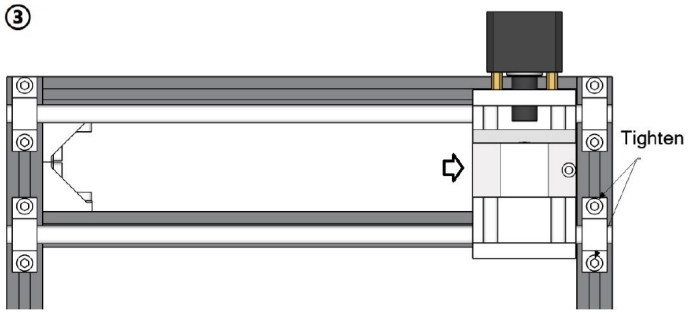




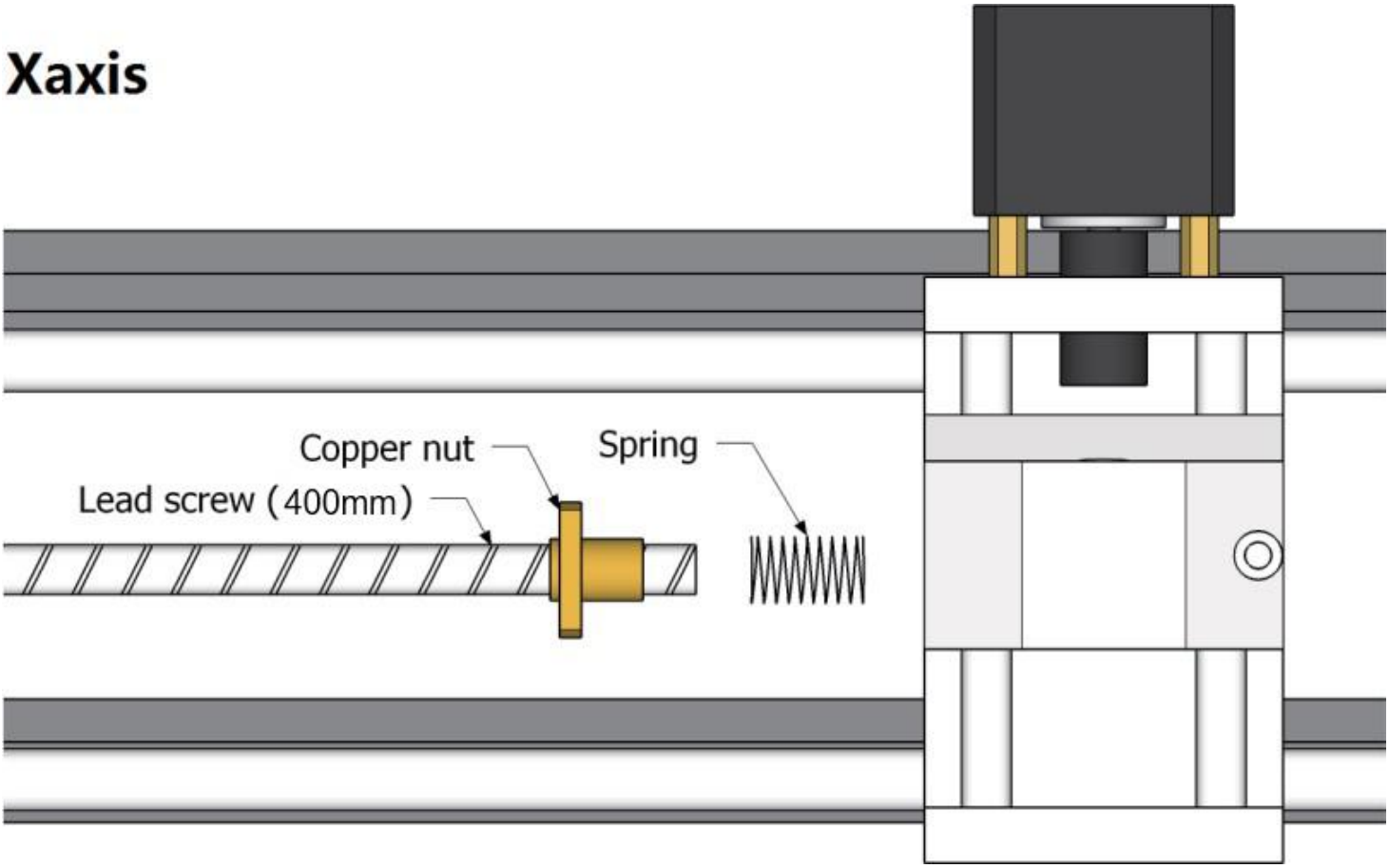
h. X-Z axis assembly installation: X-Z axis assembly x1, 400mm Linear axis x2



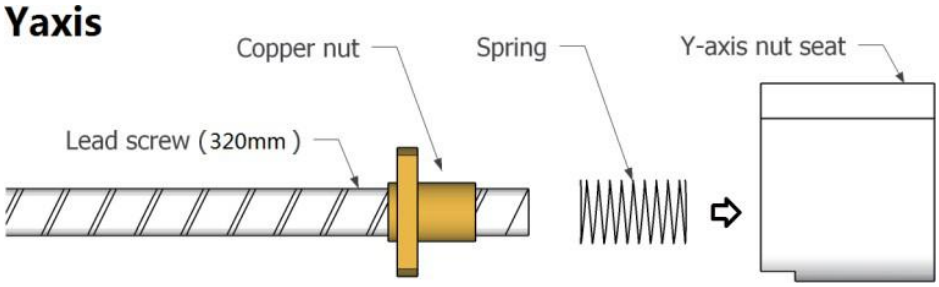


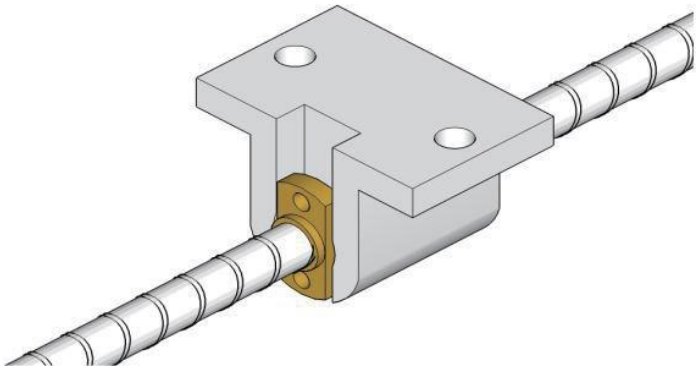


i. Lead screw installation: 400mm X-axis Lead screw x1, 320mm Y-axis Lead screw x1, Copper nut x2, Spring x2

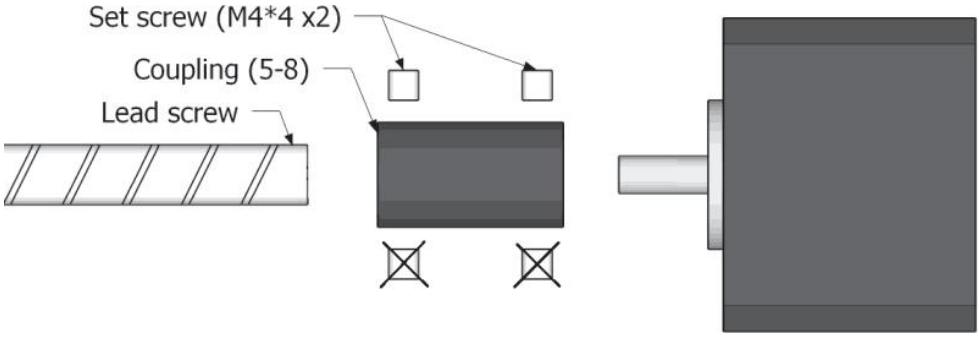


Yaxis

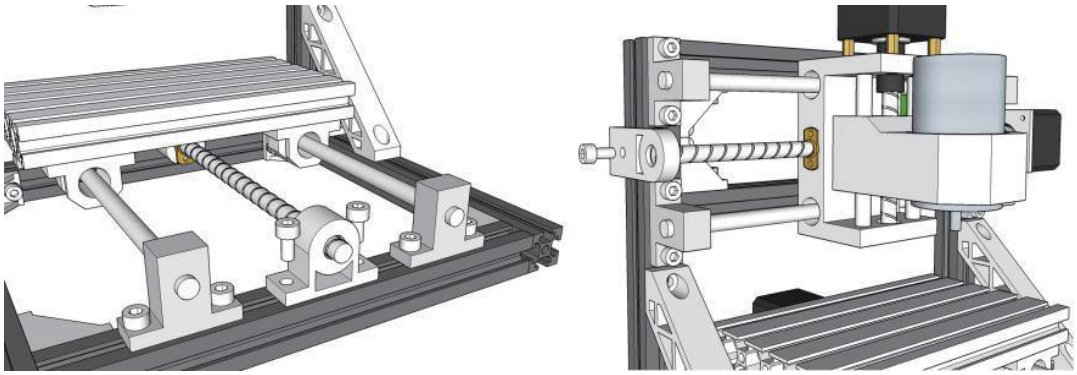




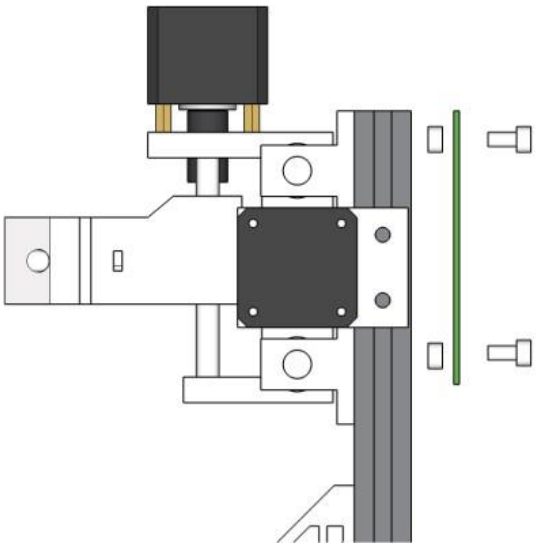
j. Coupling assembly: Coupling x2, Set screw M4 x4

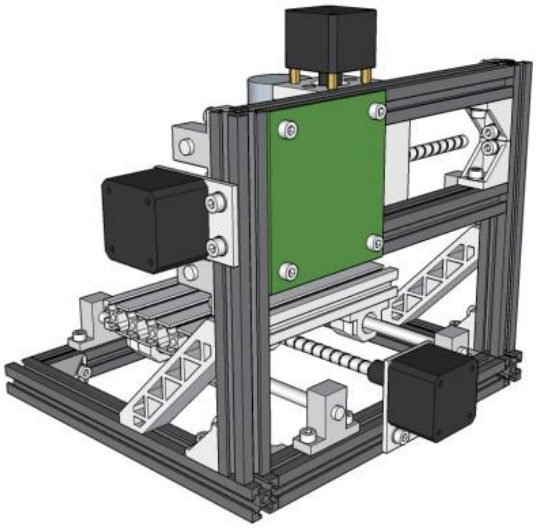


k. Bearing & Spindle installation: X-axis bearing base x1, Y-axis bearing base x1, Bolt M5*10×3, Slide nut 20M5×3, Spindle x1

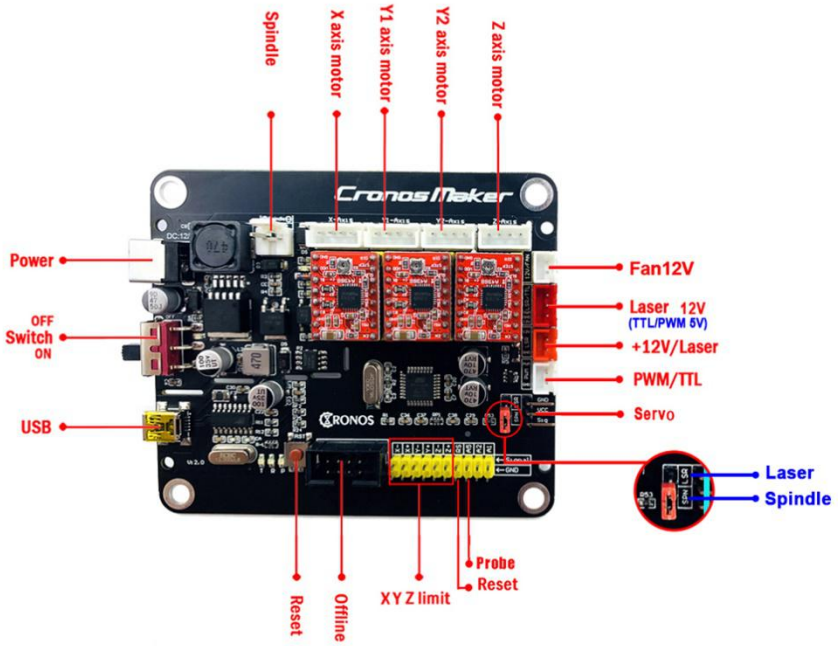


I. Install control board: Bolt M5*10×4, Slide nut 20M5×4, Control board x1

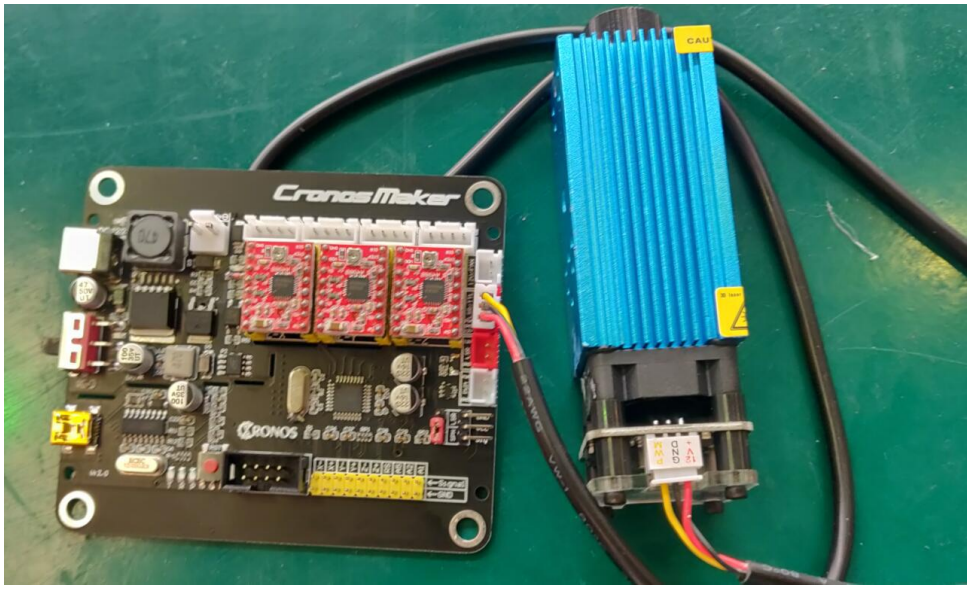




m. Wiring diagrams



n. Connect Laser



o. Milling cutter installation

Copper chuck:

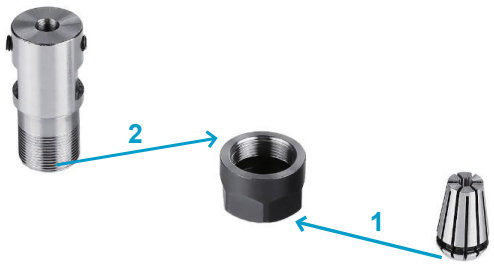
1. Screw the M3 set screws into the copper chuck.

2. Install the copper chuck into the motor and tighten the screws.

3. Install the milling cutter into the copper chuck and tighten the set screws.

ER11:

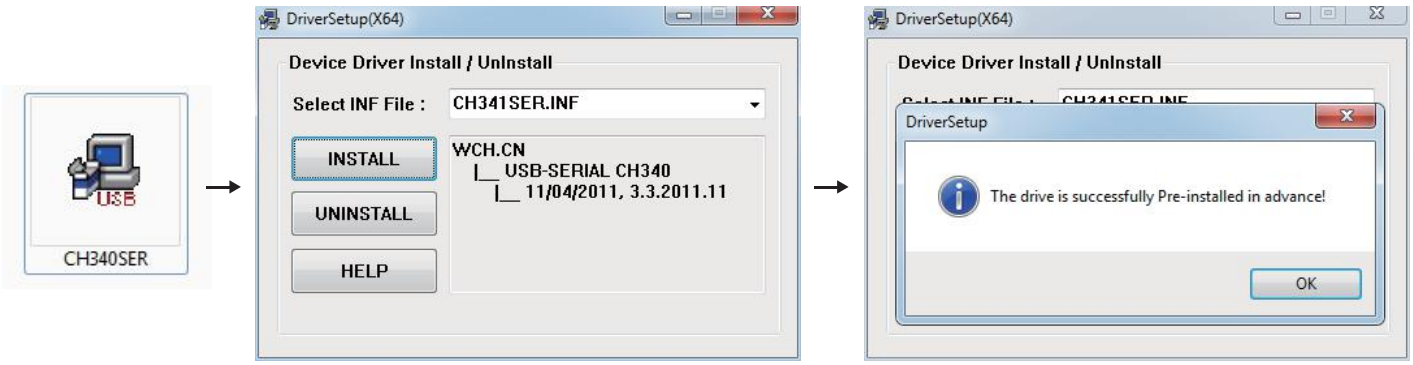
1. Install the ER11 into the ER11 extension rod holder.



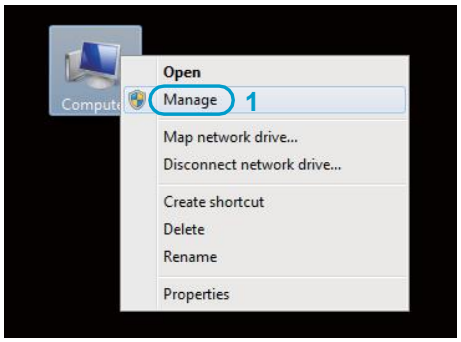
2. Install the ER11 extension rod holder into the motor. Generally, it's a little difficult to install.
   Installation: The aperture is smaller than the actual 0.02mm. According to the high-frequency heating (300 degrees Celsius), thermal expansion and contraction principle, to expand the hole, then insert the spindle and lock it, and then fix the shaft collet after cooling completely.

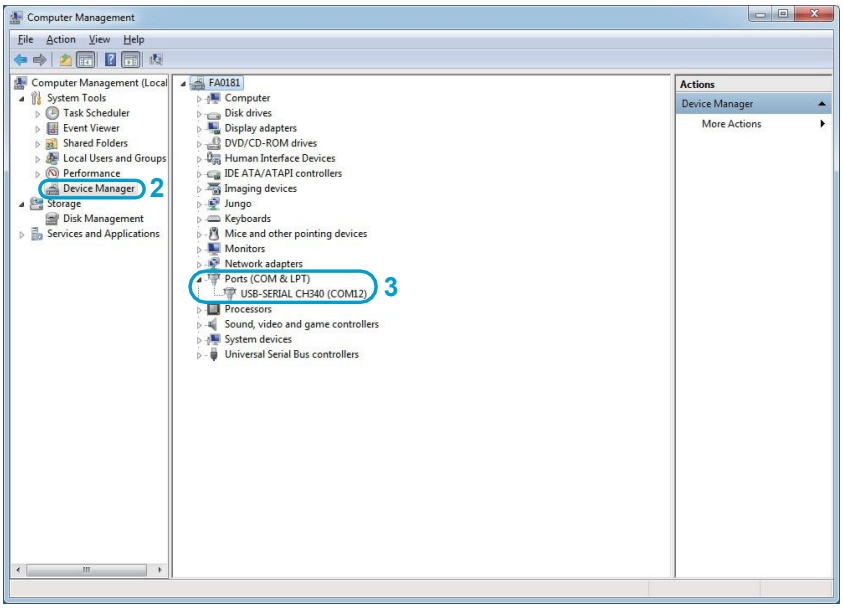
Part 3: Debugging

1. Install the driver (software → Driver → CH340SER.exe)

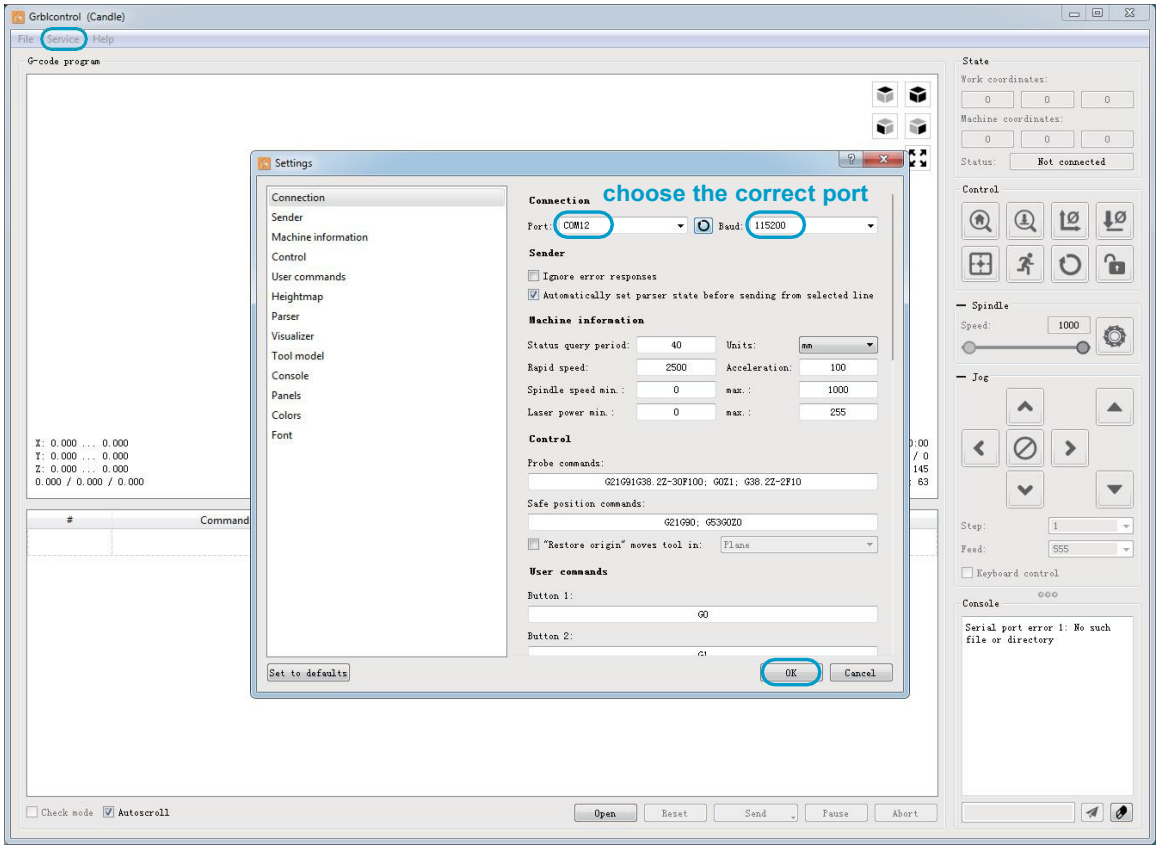


2. To Determine your Machine's COM port:
   - Windows XP: Right click on "My Computer", select "Manage", select "Device Manager".
   - Windows 7: Click "Start" ➔ Right click "Computer" ➔ Select "Manage" ➔ Select "Device Manager" from left pane.
   - In the tree, expand "Ports (COM & LPT)"
   - Your machine will be the USB Serial Port (COMX), where the “X” represents the COM number, for example COM12.
   - If there are multiple USB serial ports, right click each one and check the manufacturer, the machine will be "CH340".





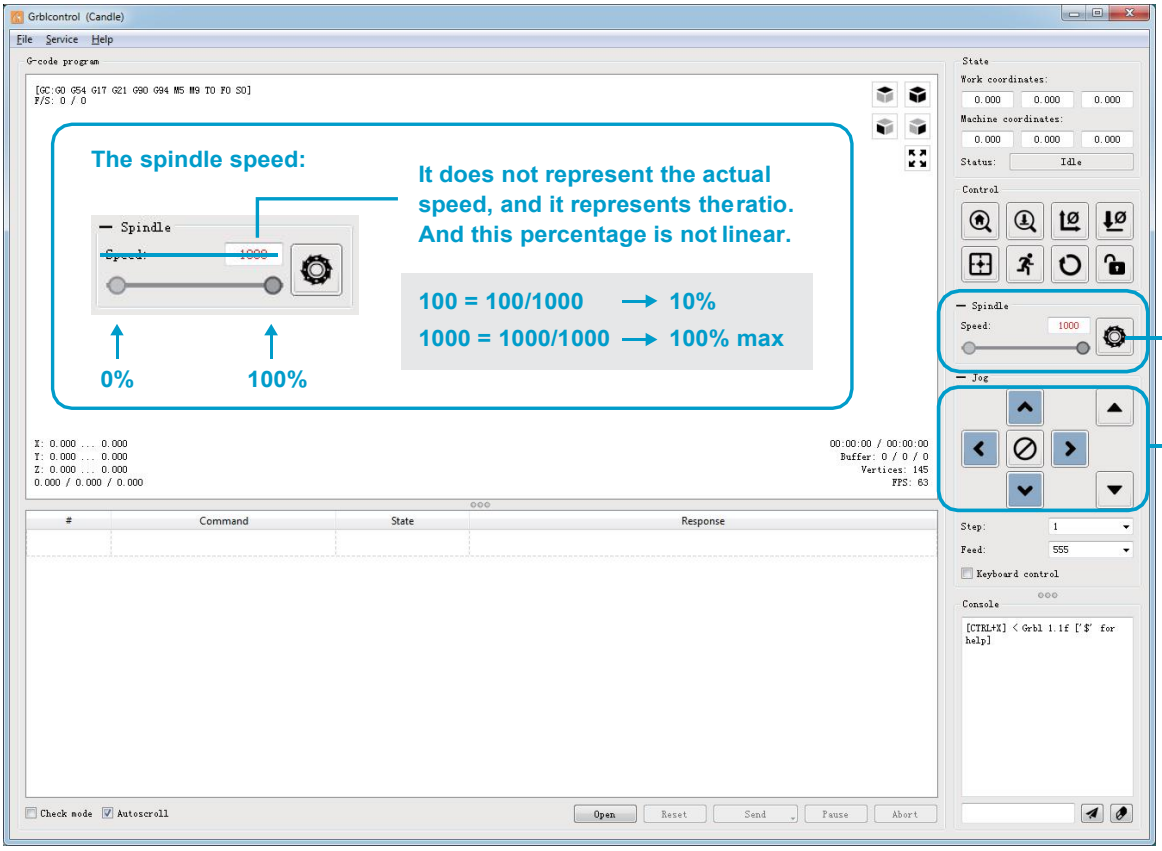
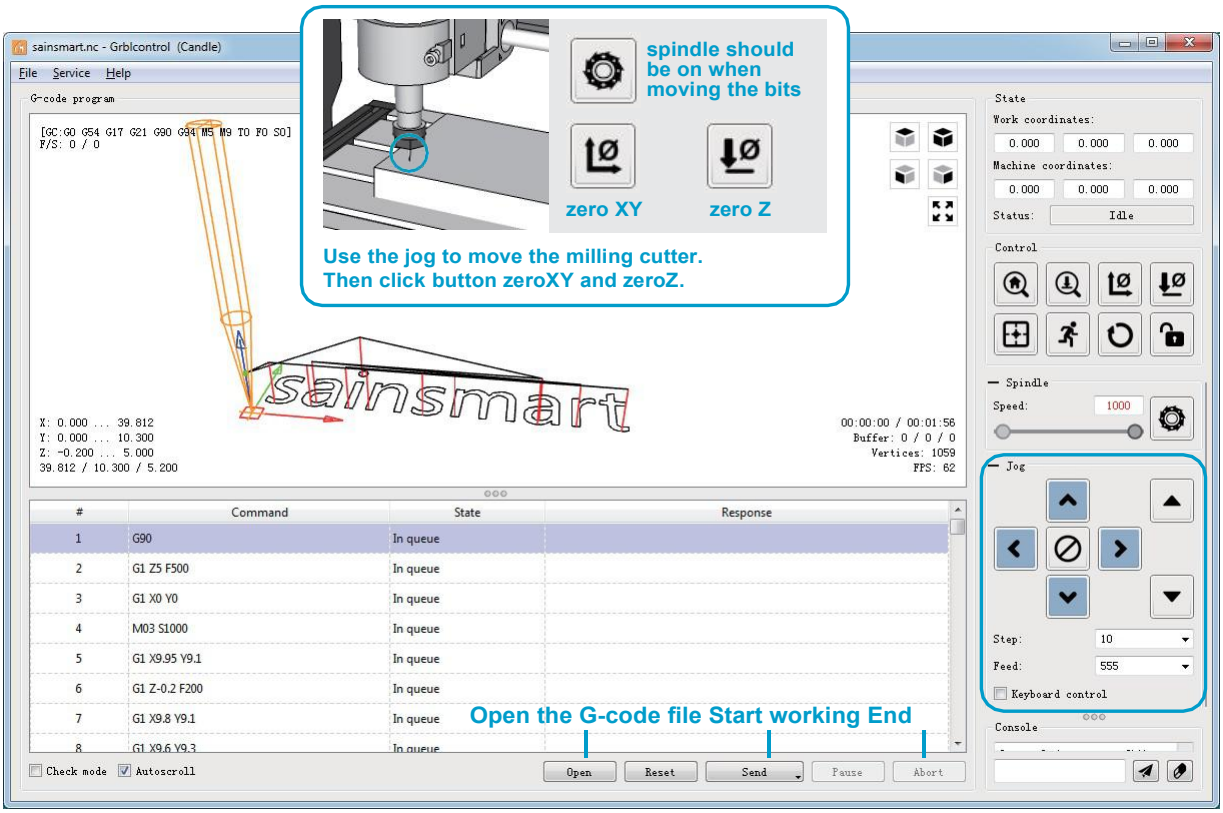
3. Open Grblcontrol software(software → Grblcontrol → GrblControl.exe)



• Console window print ” [CTRL+X] < Grbl 1.1f ['$' for help]” If the connection is successful.

• Console window print ” Serial port error 1: No such file or directory “ indicate that the connection is failed.

• Grblcontrol Use



• Tool setting