



GENMITSU CNC ROUTER 3018-PRO

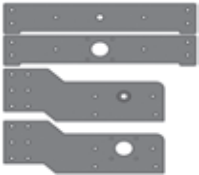
USER MANUAL

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Part 1: Package List

Name	Size	Picture	Qty
Aluminum Profile	20*40*290mm		2
	20*20*360mm		2
	300*180mm		1
Guide Rail (X Axis)	Ø10*360mm		2
Guide Rail (Y Axis)	Ø10*290mm		2
Lead Screw	T8(365mm)		1
	T8(295mm)		1

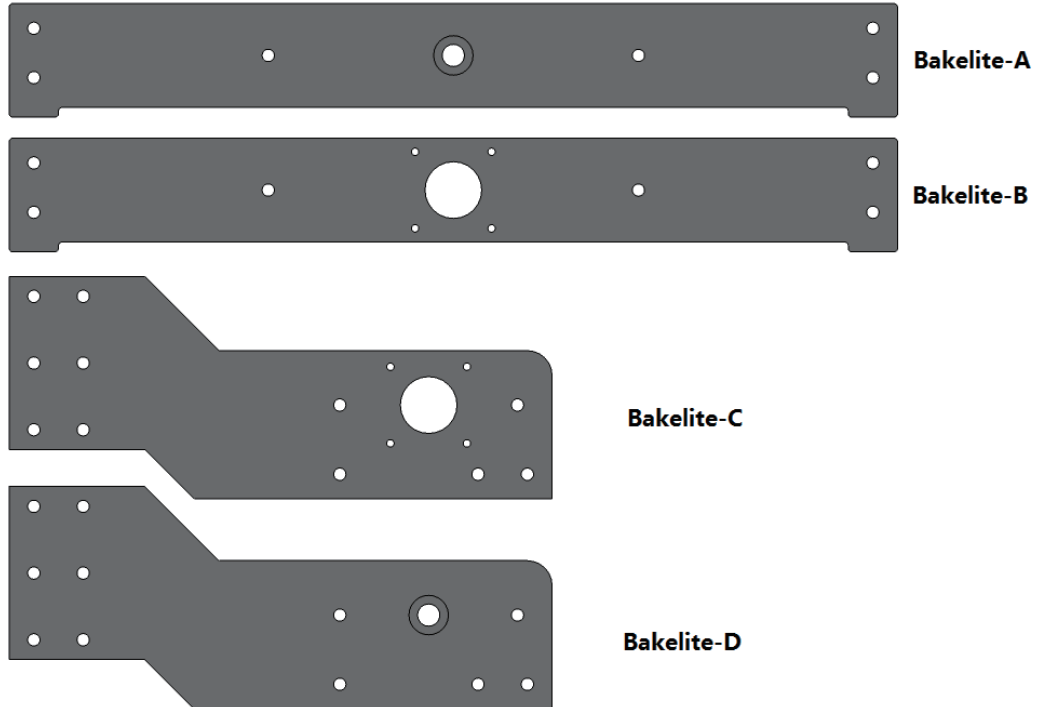
Name	Size	Picture	Qty
Phenolic Resin Plate			4
Steppmotor			2
Spindle & ER11			1
X-Z Axis Assembly			1
Slider			4
Nut Seat			1
Milling Cutter			10

Name	Size	Picture	Qty
4P Motor Line			3
Offline Controller			1
Spindle Motor Line			1
24V Power Supply			1
Control Board & Fan & Case			1
USB Cable			1
Plate Clamp			4

Name	Size	Picture	Qty
Winding Tube			2M
USB Stick			1
Allen Wrench	1.5mm,2.0mm,2.5mm, 3.0mm,4.0mm		4
Bolt	M5*10		4
	M5*16		43
	M3*14		8
Copper Nut			2
Nut 20M5	20*M5		16
Nut 30M5	30*M5		10
Spring			2
Coupling & Set Screw			2

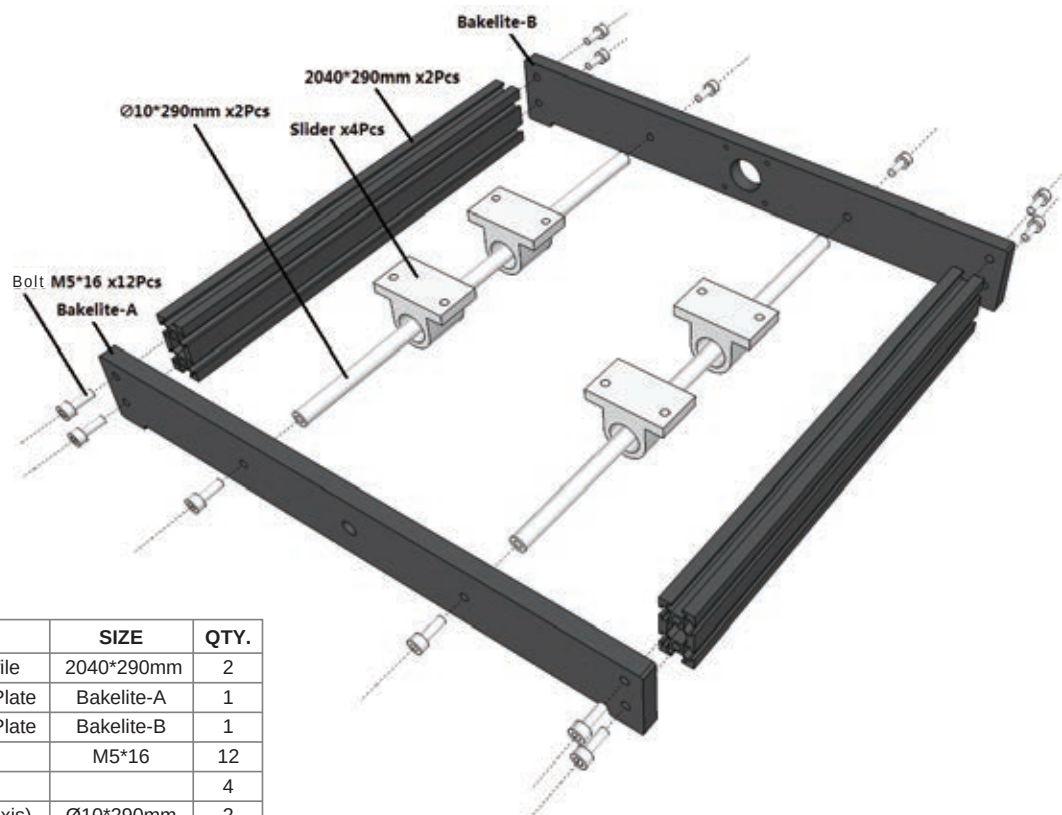
Part 2: Mechanical Installation

Bakelite:



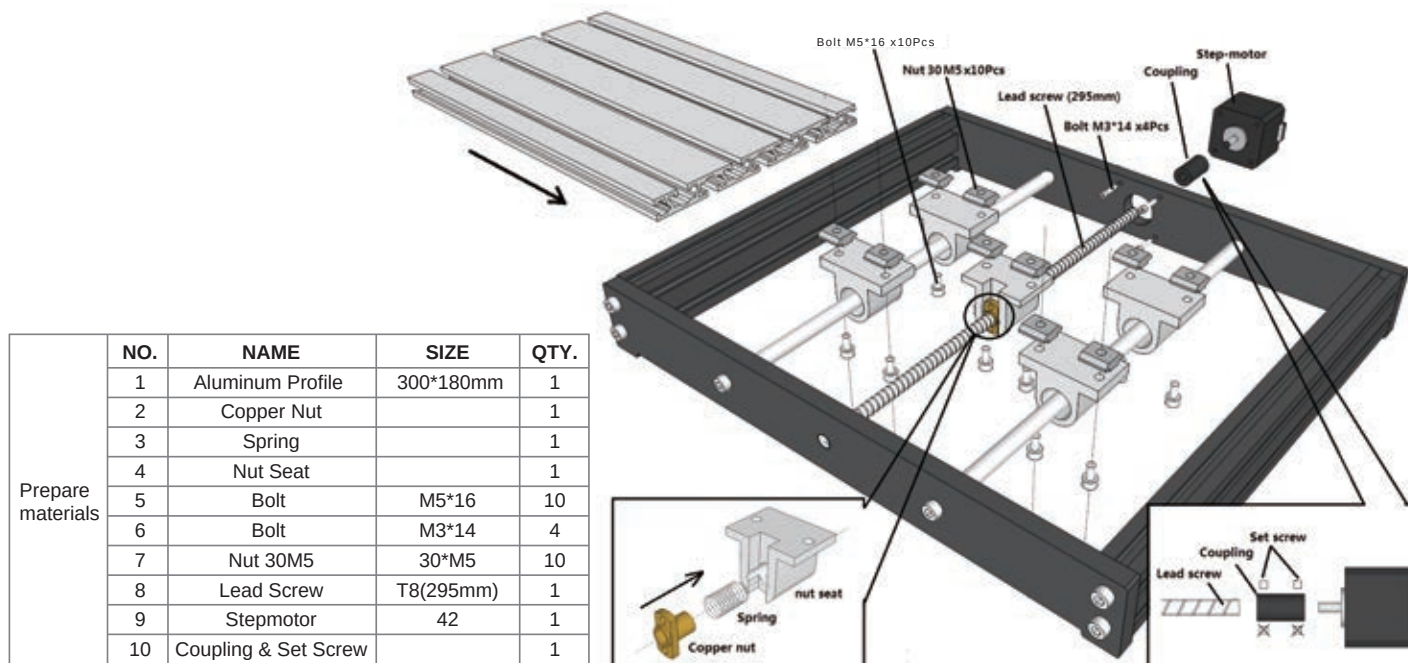
Step 1

Base Installation



Prepare materials	NO.	NAME	SIZE	QTY.
	1	Aluminum Profile	2040*290mm	2
	2	Phenolic Resin Plate	Bakelite-A	1
	3	Phenolic Resin Plate	Bakelite-B	1
	4	Bolt M5*16	M5*16	12
	5	Slider		4
	6	Guide Rail (Y Axis)	Ø10*290mm	2

Step 2 Table Installation

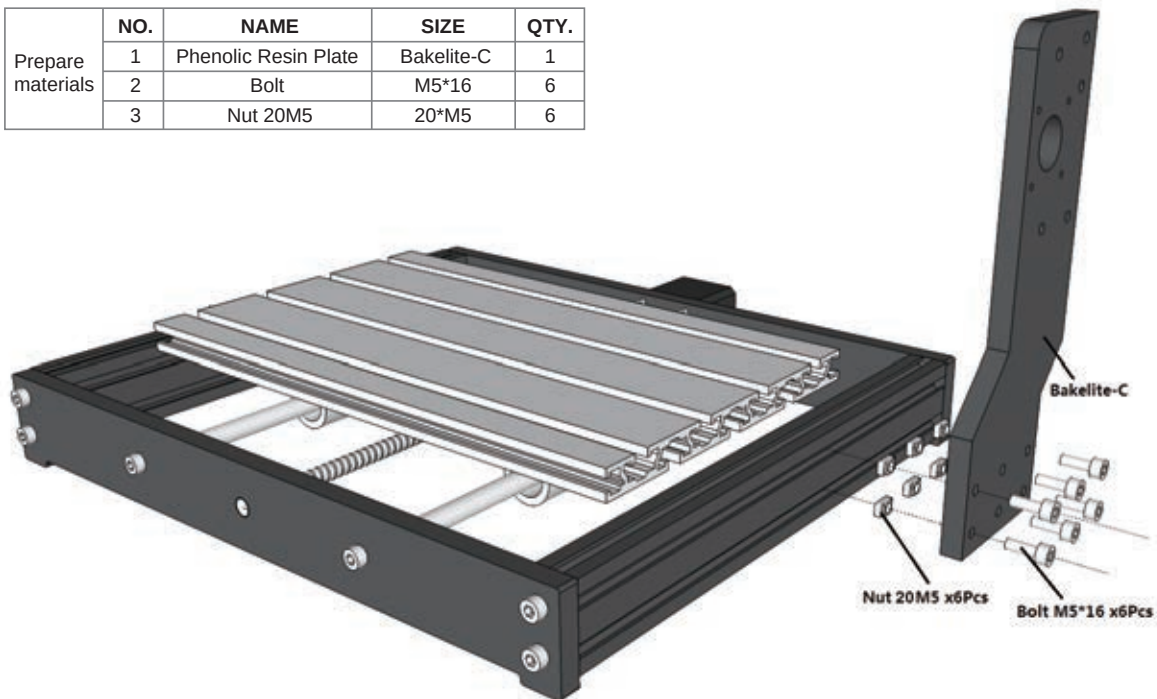


Completed

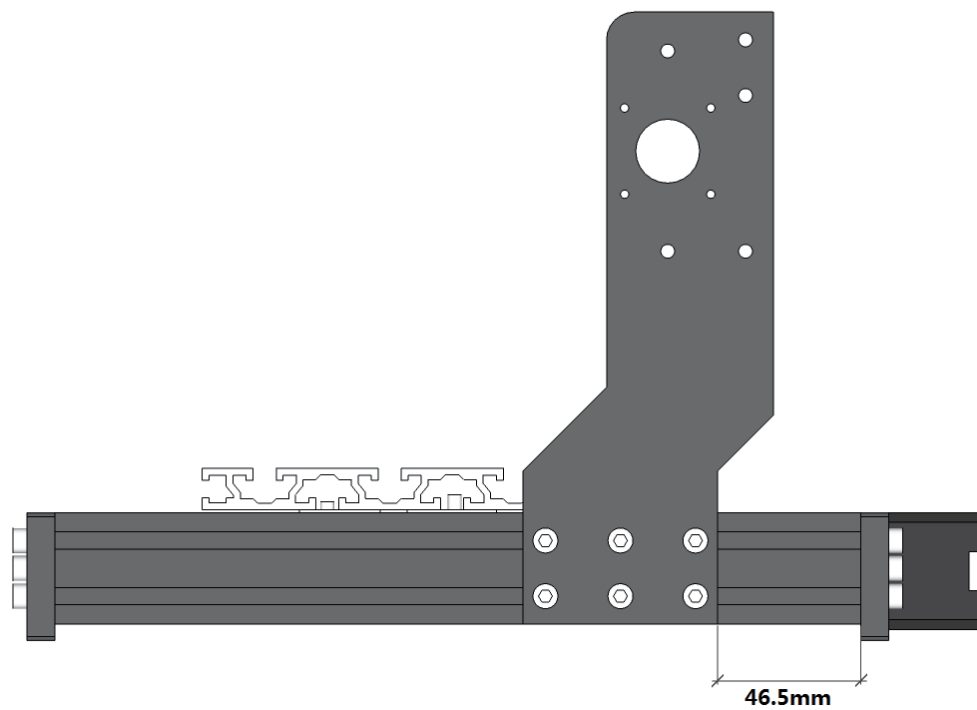


Step 3 Base & Bakelite-C Installation

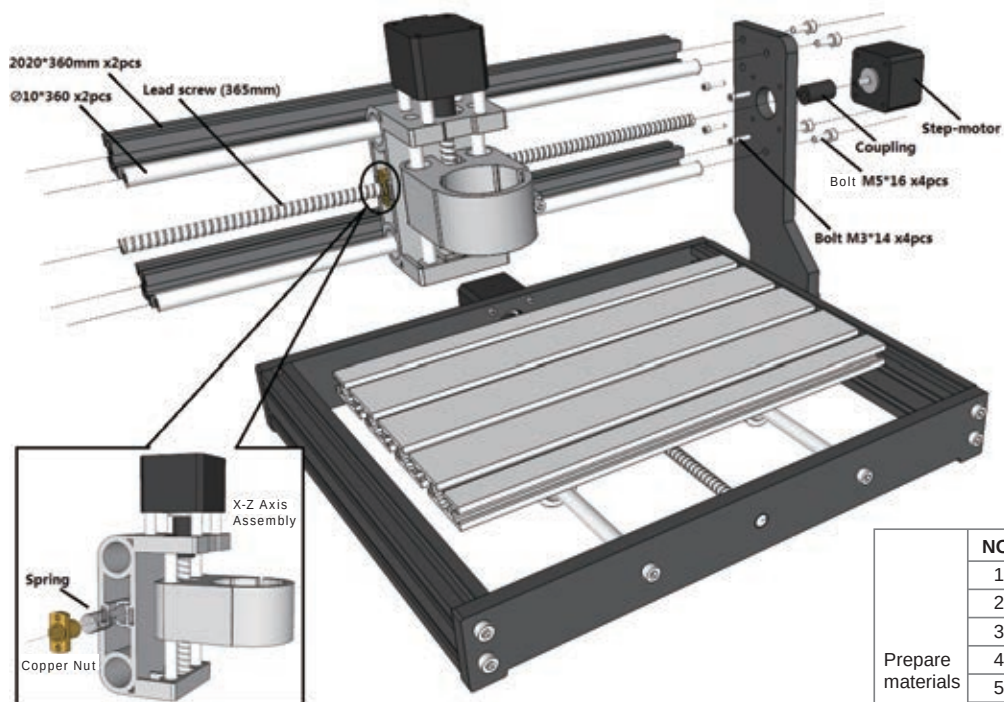
	NO.	NAME	SIZE	QTY.
Prepare materials	1	Phenolic Resin Plate	Bakelite-C	1
	2	Bolt	M5*16	6
	3	Nut 20M5	20*M5	6



Completed



Step 4 X-Z Axis Assembly Installation

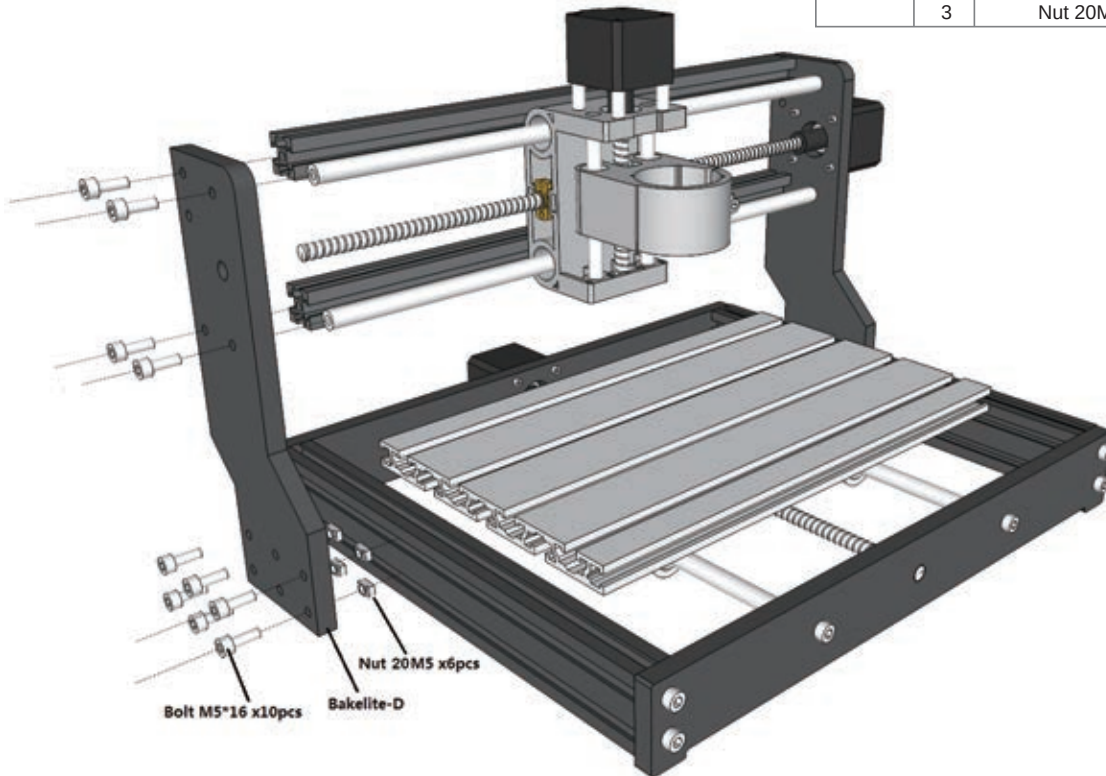


Prepare materials	NO.	NAME	SIZE	QTY.
	1	X-Z Axis Assembly		1
	2	Copper Nut		1
	3	Spring		1
	4	Aluminum Profile	20*20*360mm	2
	5	Guide Rail (X Axis)	Ø10*360mm	2
	6	Lead Screw	T8(365mm)	1
	7	Coupling & Set Screw		1
	8	Bolt	M5*16	4
	9	Bolt	M3*14	4

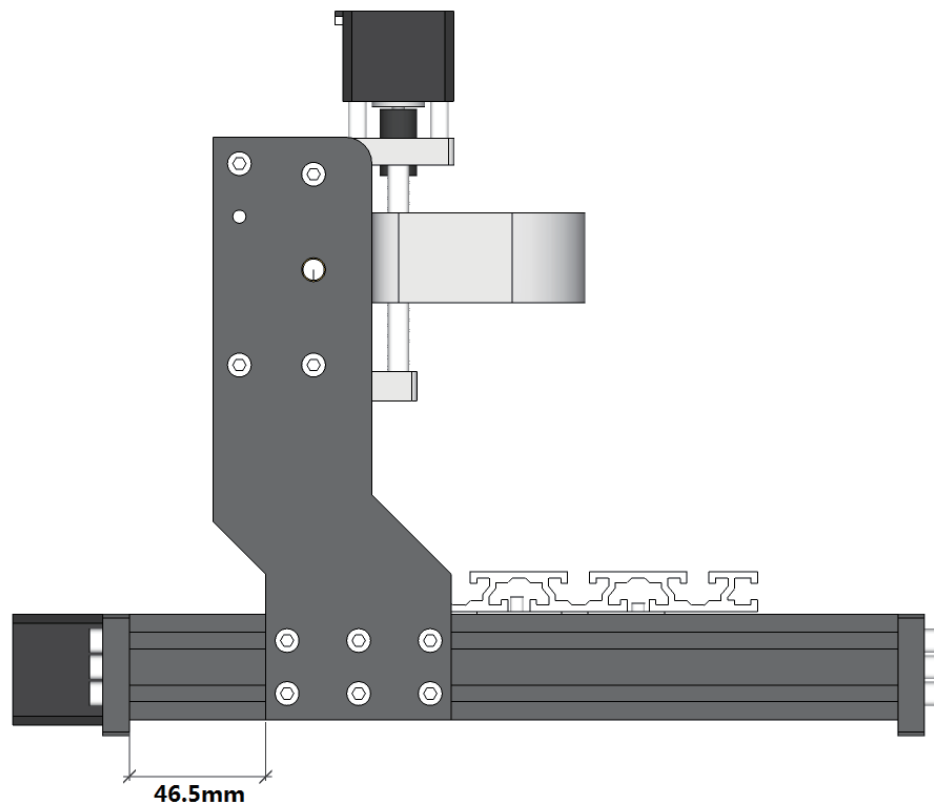
Step 5

Bakelite-D Installation

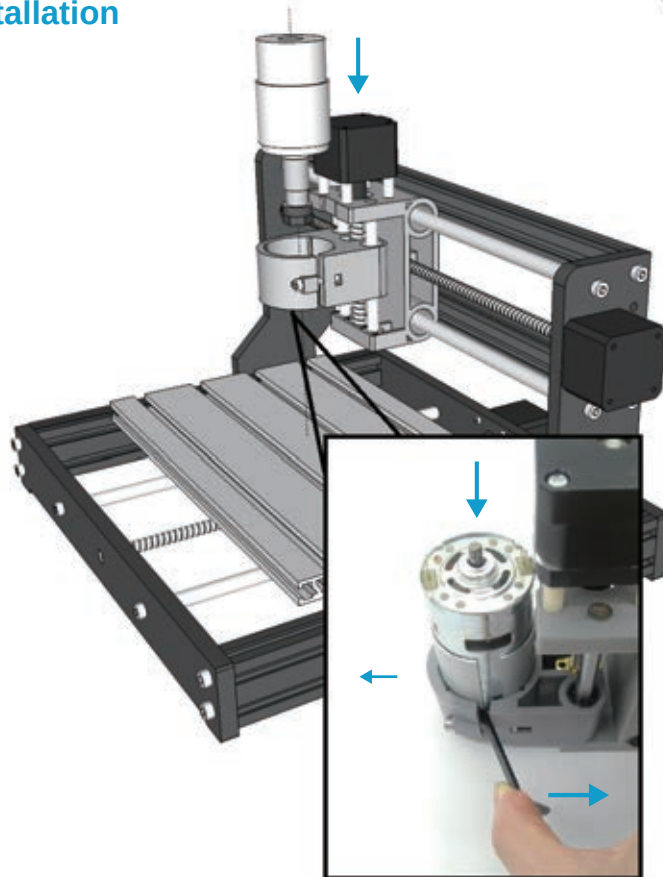
	NO.	NAME	SIZE	QTY.
Prepare materials	1	Phenolic Resin Plate	Bakelite-D	1
	2	Bolt M5*16	M5*16	10
	3	Nut 20M5	20*M5	6

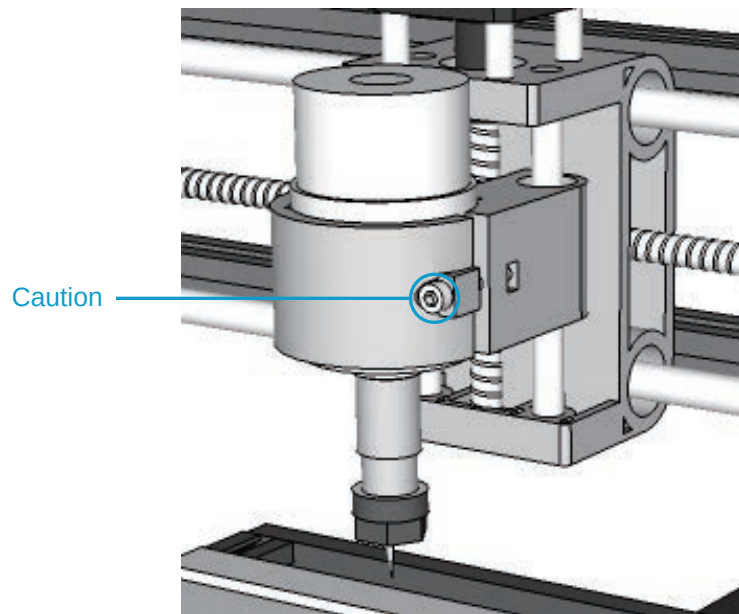


Completed



Step 6 Spindle Installation

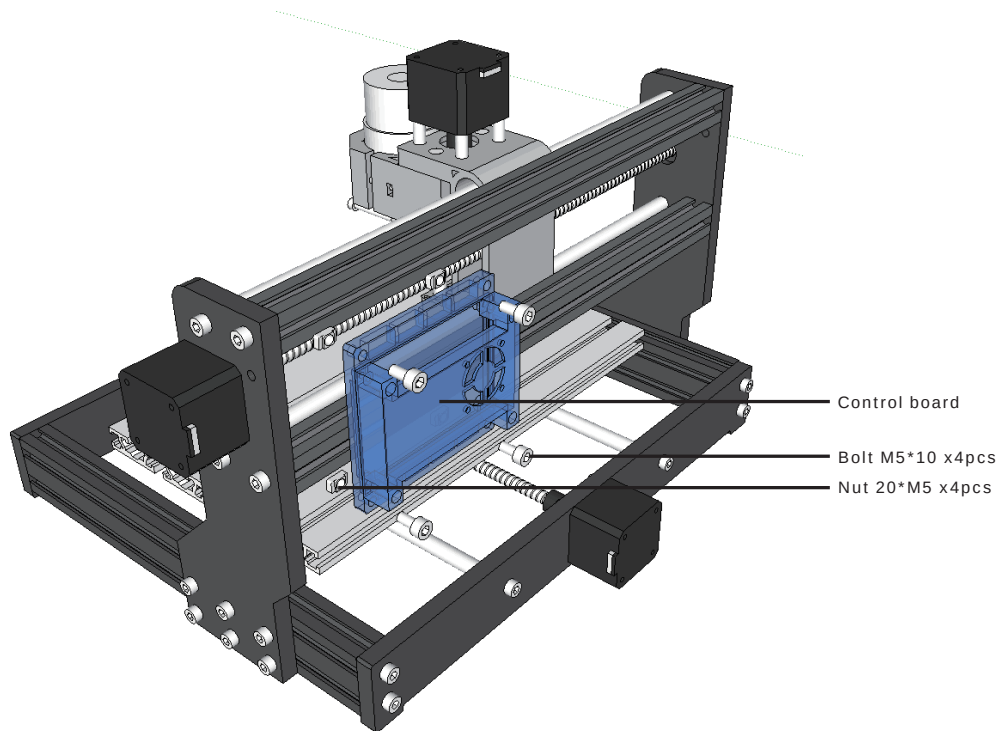




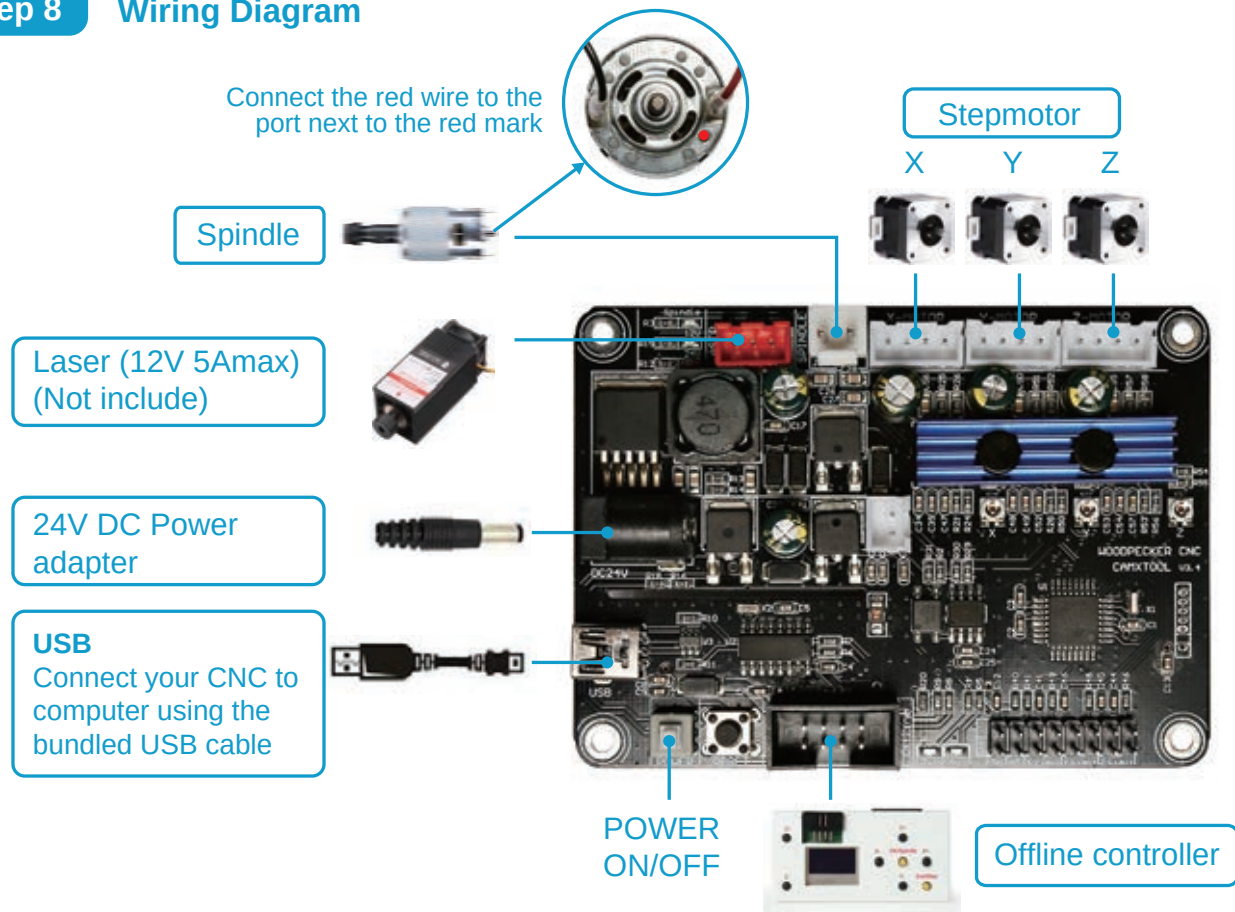
- Tighten the bolt without using excessive force to prevent plastic damage.

Step 7

Control Board Installation

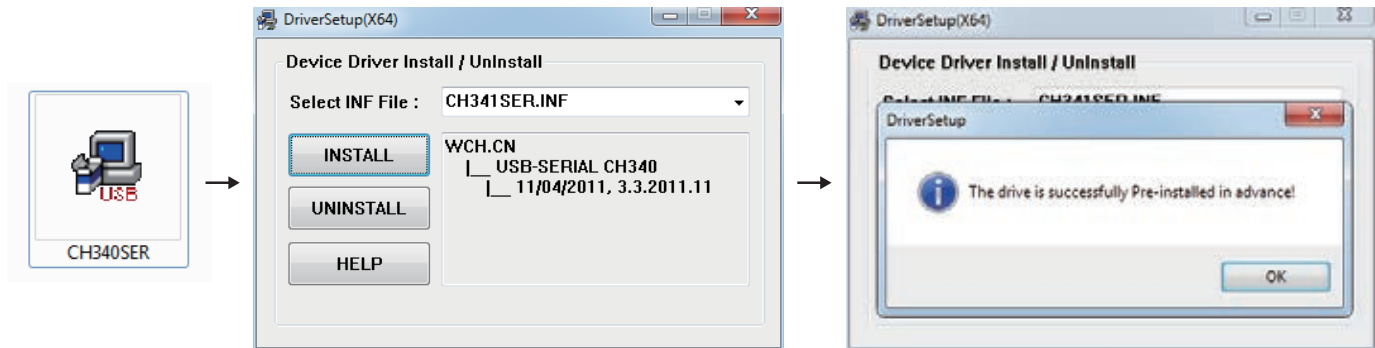


Step 8 Wiring Diagram



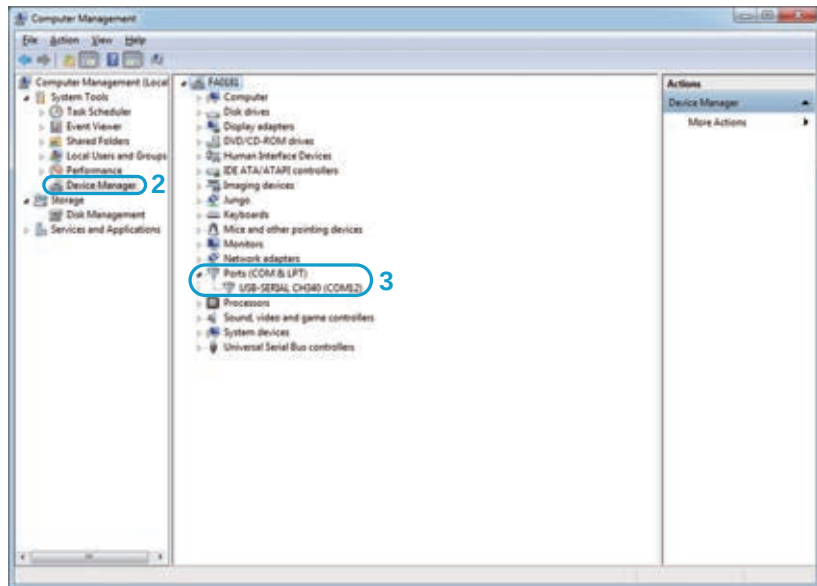
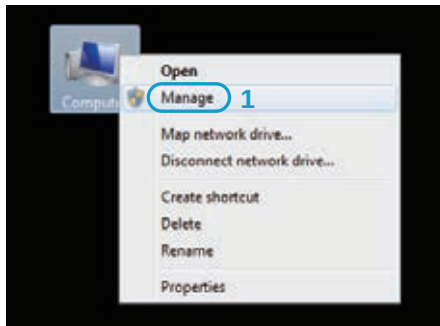
Part 3: Debugging

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

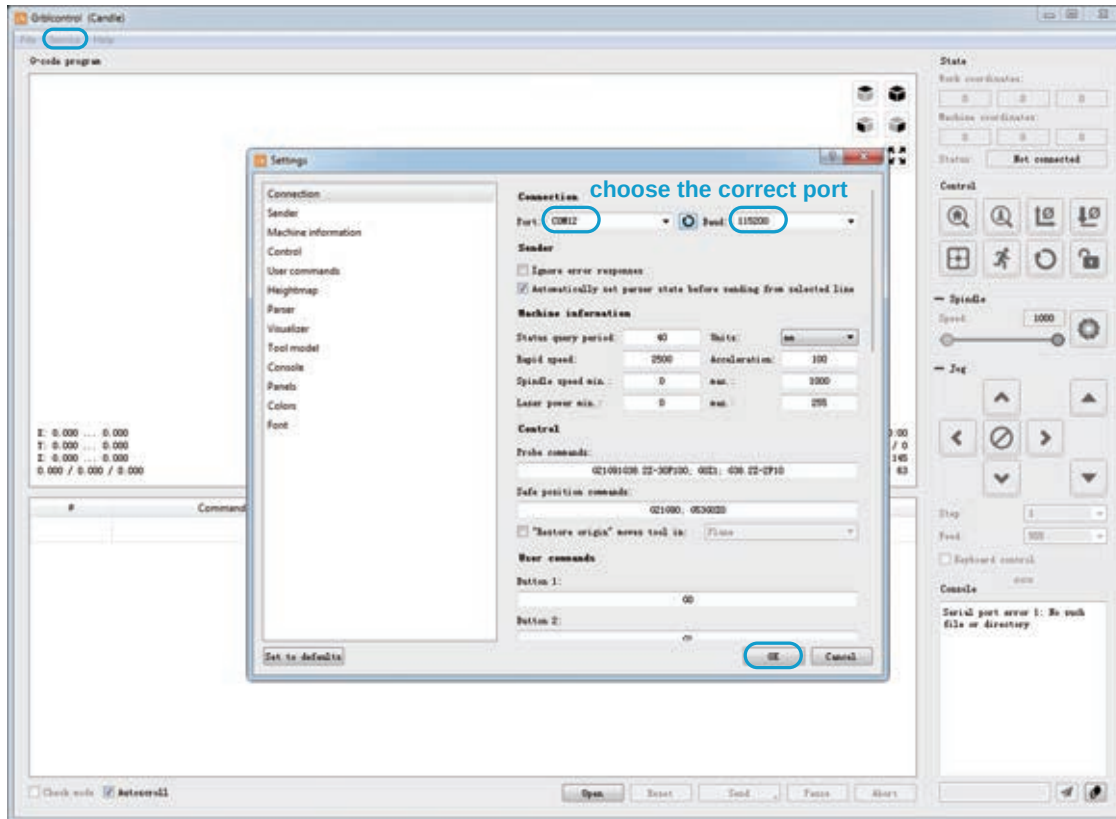


2. To Determine your Machine's COM port:

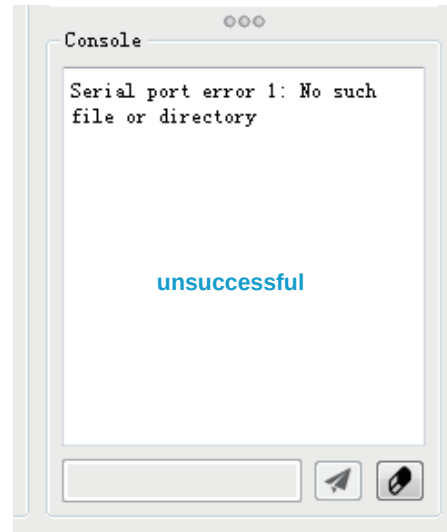
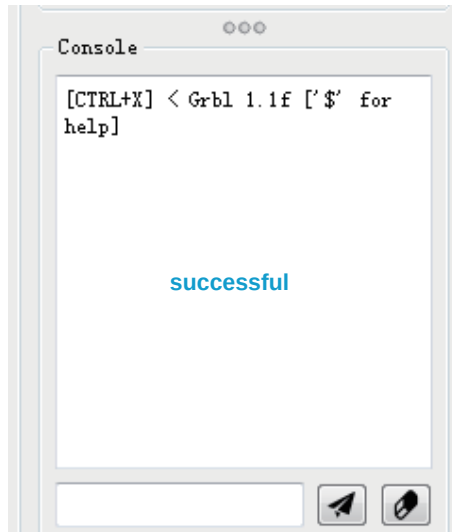
- Windows XP: Right click on "My Computer", select "Manage", select "Device Manager".
- Windows 7: Click "Start" → Right click "Computer" → Select "Manage" → Select "Device Manager" from left pane.
- In the tree, expand "Ports (COM & LPT)"
- Your machine will be the USB Serial Port (COMX), where the "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

The screenshot shows the Grblcontrol (Kandel) software interface. A blue box highlights the spindle speed control section, which includes a slider and a gear icon. The slider is labeled 'Speed:' and has a value of 1000. Below the slider, two arrows point to the 0% and 100% marks. To the right of the slider, a text box explains that the value represents a ratio, not the actual speed, and that the percentage is not linear. Below this, two equations are shown: $100 = 100/1000 \rightarrow 10\%$ and $1000 = 1000/1000 \rightarrow 100\% \text{ max}$. To the right of the main interface, another blue box highlights the spindle on/off button (gear icon) and the X Y Z axis jog buttons (directional arrows). The jog buttons are labeled 'The X Y Z axis jog'. The spindle on/off button is labeled 'spindle on/off'.

The spindle speed:

It does not represent the actual speed, and it represents the ratio. And this percentage is not linear.

100 = $100/1000 \rightarrow 10\%$
 1000 = $1000/1000 \rightarrow 100\% \text{ max}$

spindle on/off

The X Y Z axis jog

- Tool setting

The screenshot shows the SainSmart CNC control software interface. A blue box highlights the top-left area, showing a 3D model of the milling cutter and a callout that reads: "spindle should be on when moving the bits" and "Use the jog to move the milling cutter. Then click button zeroXY and zeroZ." Below this, a table lists the G-code commands and their states. At the bottom, three buttons are labeled: "Open the G-code file", "Start working", and "End".

Callout Box:

- spindle should be on when moving the bits
- Use the jog to move the milling cutter. Then click button zeroXY and zeroZ.

Table:

#	Command	State	Response
1	G90	In queue	
2	G1 Z5 F500	In queue	
3	G1 X0 Y0	In queue	
4	M03 S2000	In queue	
5	G1 X9.95 Y9.1	In queue	
6	G1 Z-0.2 F200	In queue	
7	G1 X9.8 Y9.1	In queue	
8	G1 X9.6 Y9.3	In queue	

Buttons:

- Open the G-code file
- Start working
- End

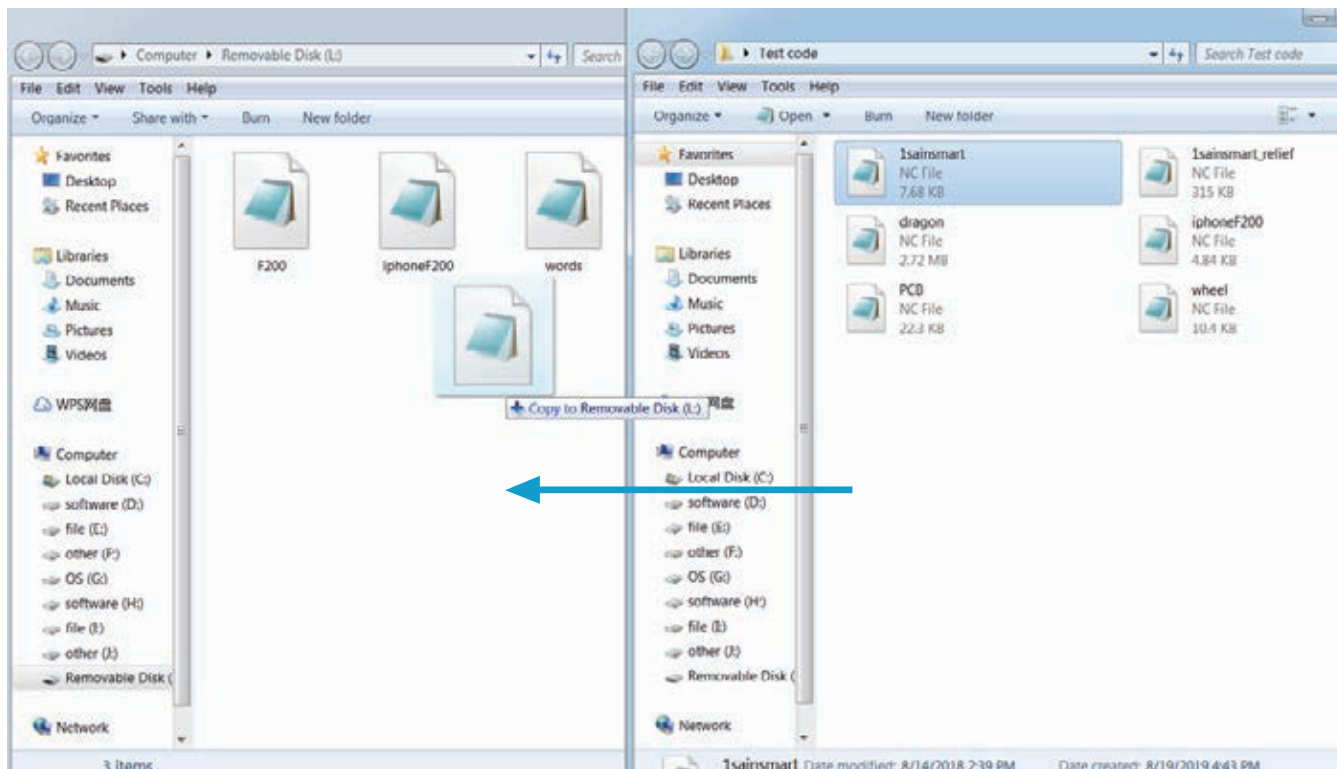
Part 4: Offline Controller

Notice: When using the offline controller, remove the USB cable from the PC. Offline controller and PC cannot be used together.

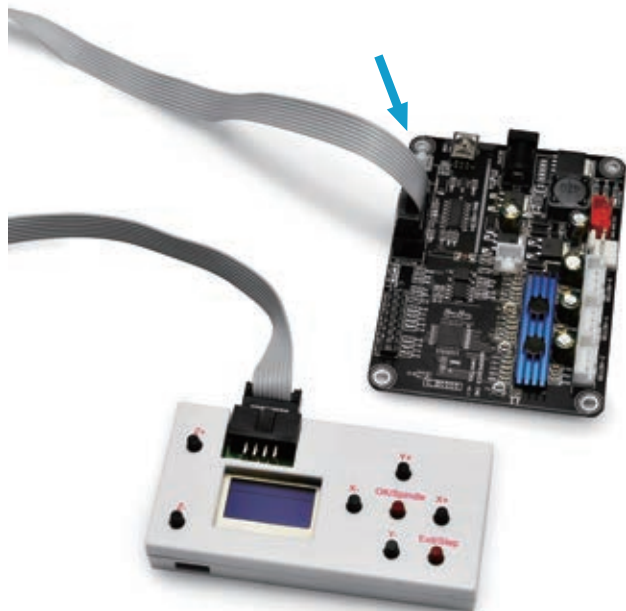
1. Connect offline controller to PC via USB cable.



2. Then copy the NC file to the offline controller.



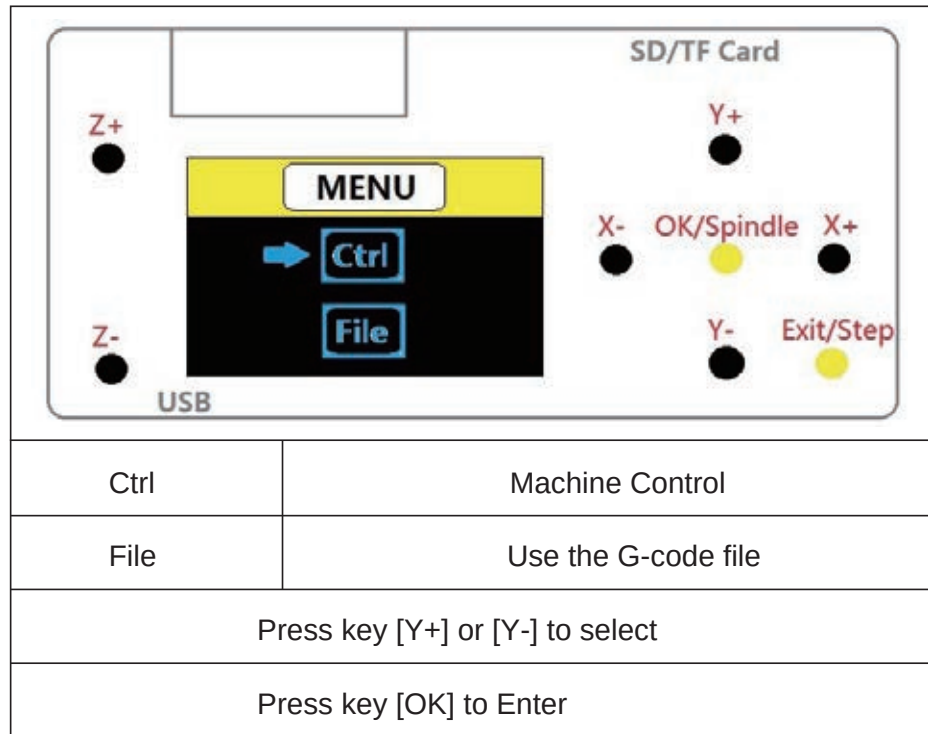
3. Offline controller connected to the control board.



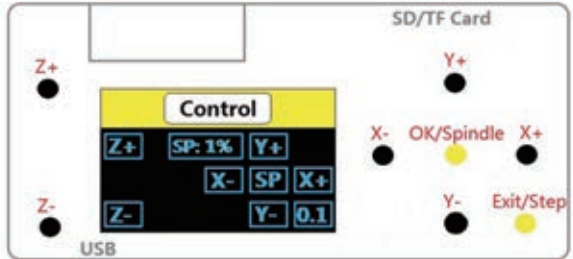
4. Press the [X+/X-/Y+/Y-/Z+/Z-] key to move the spindle to the machine origin, select the engraving file, click the [OK] key to start engraving.

5. Interface introduction

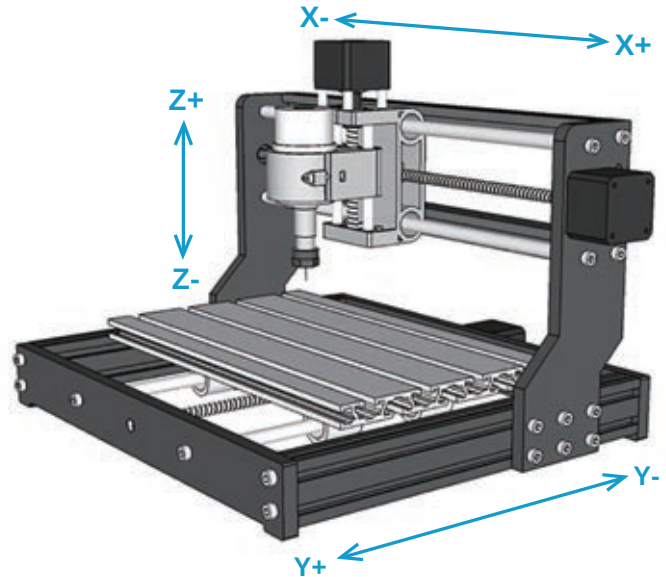
A. Menu Page



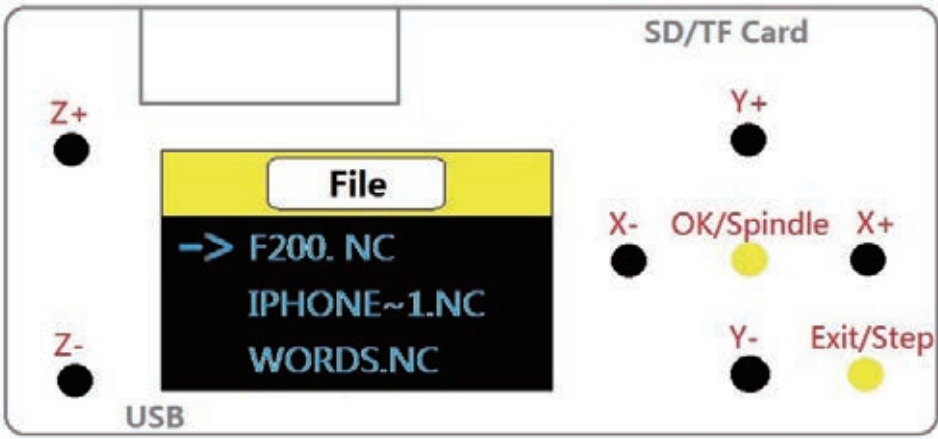
B. Ctrl Page

	
X+	X-axis positive direction
X-	X-axis negative direction
Y+	Y-axis positive direction
Y-	Y-axis negative direction
Z+	Z-axis positive direction
Z-	Z-axis negative direction
OK/Spindle(SP)	Spindle On/Off
Exit/Step	Long press to exit, short press to change step (0.1/1/5/10mm)
SP:1%	Power to spindle (Press [OK]+[Z+]=add, Press [OK]+[Z-]=reduce)

Reference direction



C. File Page



The diagram illustrates a CNC control panel interface for file selection. The central screen shows a yellow header with the word "File" and a list of files: "-> F200. NC", "IPHONE~1.NC", and "WORDS.NC". The panel features several physical buttons: Z+ and Z- on the left; Y+, Y-, X-, and X+ on the right; and a yellow "OK/Spindle" button and a yellow "Exit/Step" button. Above the screen is an "SD/TF Card" slot, and below it is a "USB" port.

Press key [Y+] or [Y-] to select file
Press key [OK] to Enter
Press key [OK] to begin if you are ready.



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