HY-TB3DV-S intelligent 3-axis drive board manual

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Features: Features

1: integrated high-speed microcomputer intelligent control chip, with plug-in LCD display and hand, automatically detect the computer to automatically control the movement of the shield handle control functions, digital can simultaneously track record computer data and handle control mobile data

5: The driver XYZ-axis or Z axis of the knife can be done automatically, without complex computer software operation

6: up to 5A stepper motor drive current, adjustable.

7: up to 16 segments, more accurate, run more smoothly.

8: overload automatic protection function of the flow through the warm, protect your computer and peripherals .

9: bipolar constant-current chopper drive, low speed creeping phenomenon, noise, non-resonant region.

10: a closed optical isolation, two-stage signal processing, to fully protect your computer and equipment.

11:1 the road 0-10V/PWM governor signal output .

12: Rd input control, you can set the limit stop, which is divided into the knife.

Electrical properties (ambient temperature Tj = 25 ℃):

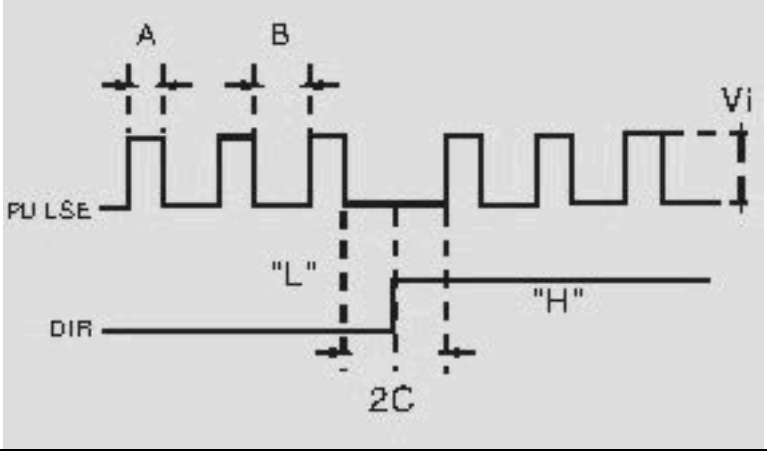
Input power	12 - 48V DC power supply

Output current	4.5A (peak 5A)
Driven approach	Bipolar constant-current PWM drive output
The drive motor	42,57,86 stepper motor, two-phase -4 phase (4-wire, 6 wire, 8 wire stepper motor)
Weight	About 300 g.

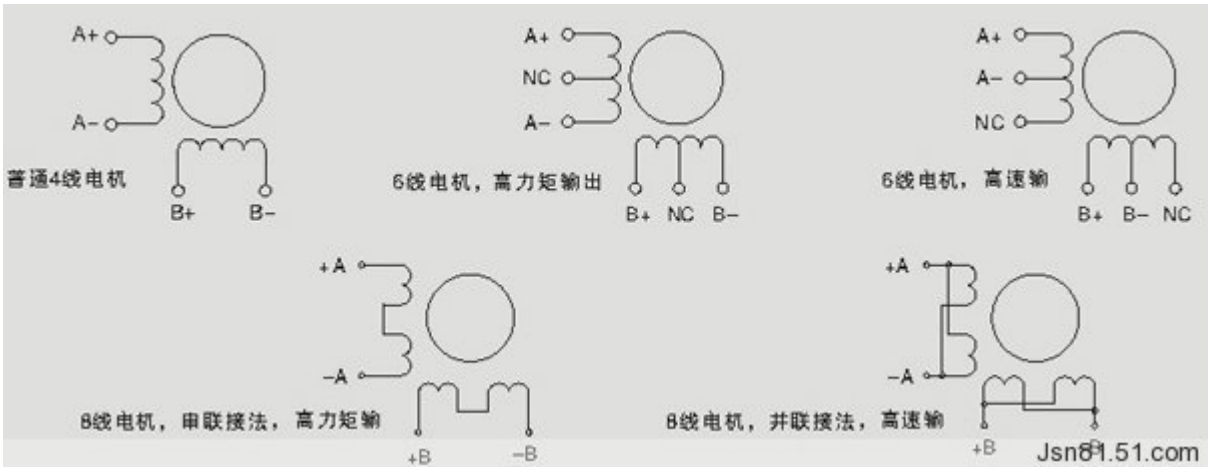
Breakdown of table:

细分	1	2	3	电流	4	5	6
NG	ON	ON	ON	0.2A	ON	ON	ON
1	OFF	ON	ON	0.6A	OFF	ON	ON
1/2	ON	OFF	ON	1.2A	ON	OFF	ON
1/2	OFF	OFF	ON	1.8A	OFF	OFF	ON
1/4	ON	ON	OFF	2.5A	ON	ON	OFF
1/8	OFF	ON	OFF	3.3A	OFF	ON	OFF
1/16	ON	OFF	OFF	4.2A	ON	OFF	OFF
NG	OFF	OFF	OFF	5A	OFF	OFF	OFF

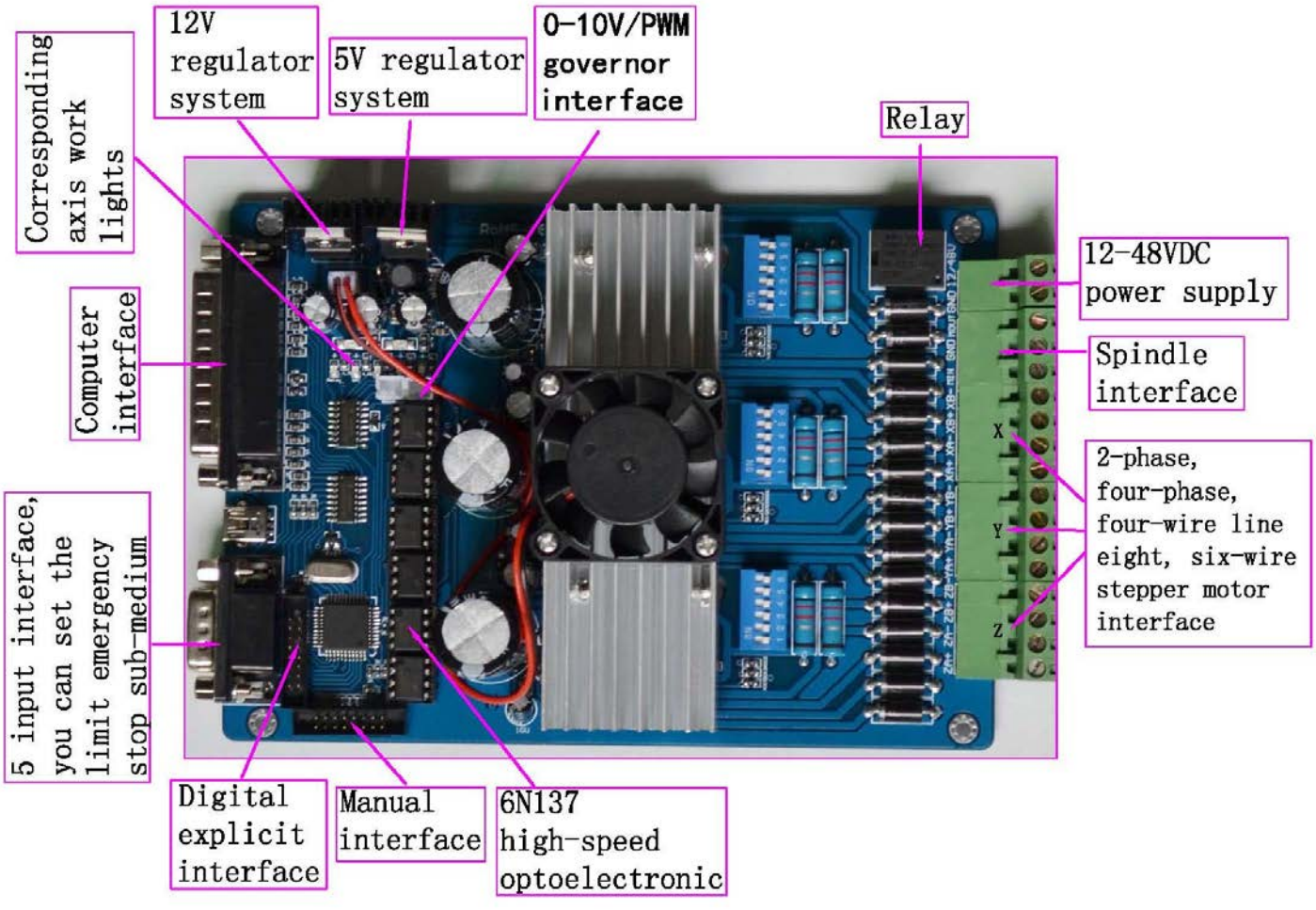
Signal waveform and timing

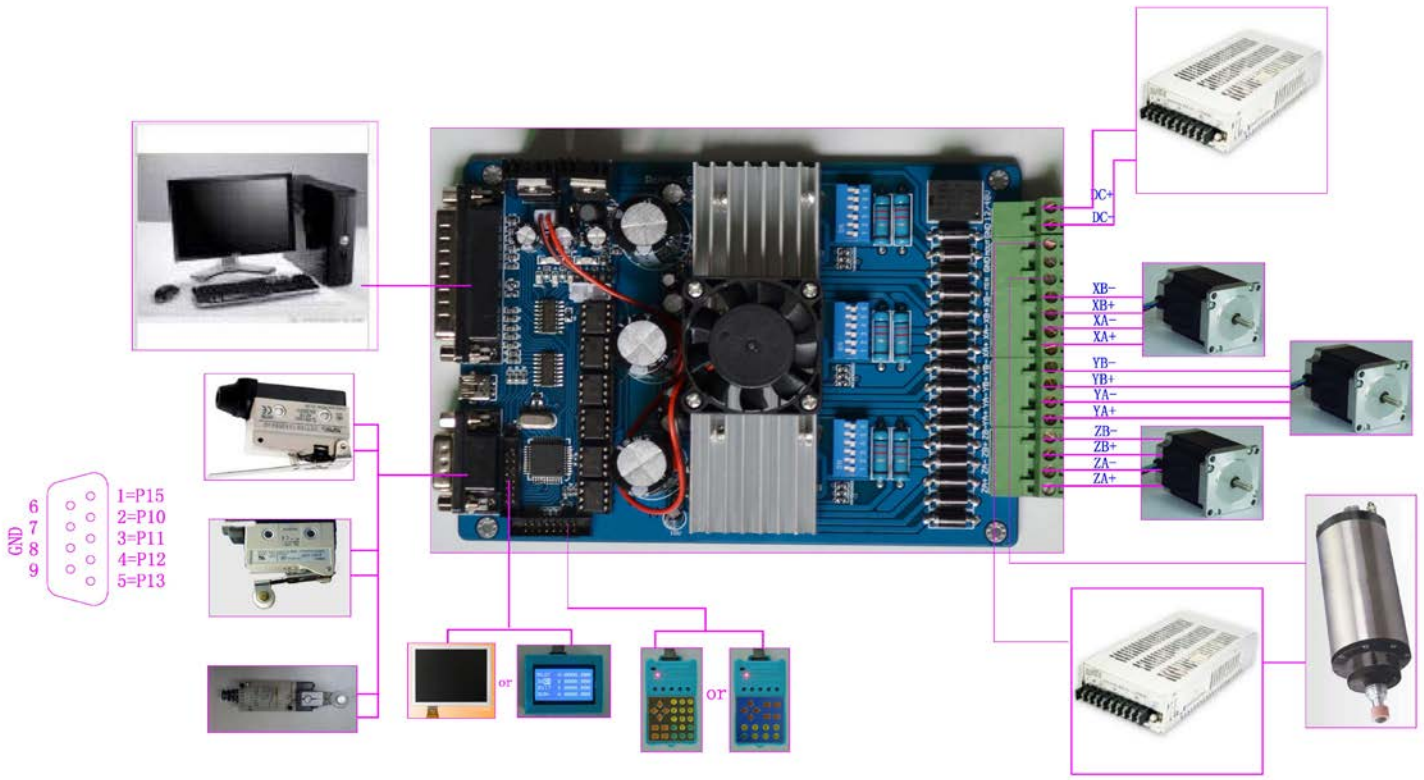


Power output interface functions



Interface marked detail in Figure




DC+
DC-
XB-
XB+
XA-
XA+
YB-
YB+
YA-
YA+
ZB-
ZB+
ZA-
ZA+
GND
6
7
8
9
1=P15
2=P10
3=P11
4=P12
5=P13
or
or


Computer Cable
High Quality
Y+
Z+
Z-
X-
X+
Y-
A+
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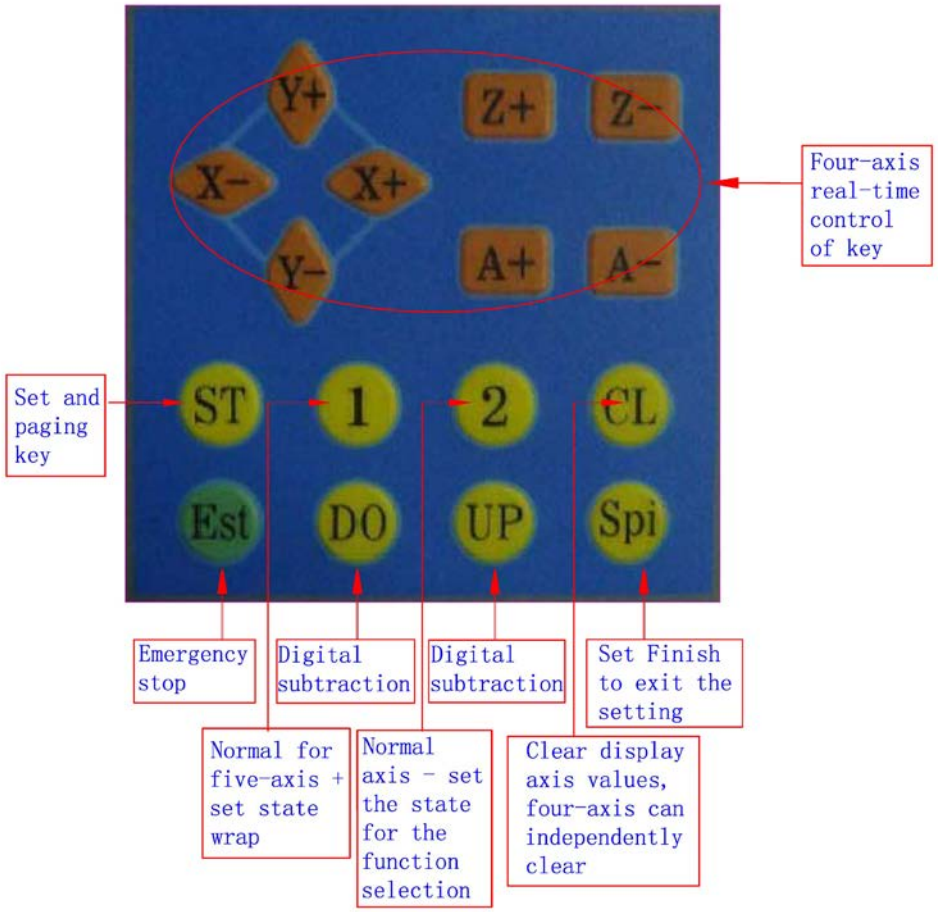
Instructions:



Main interface icons

1: The coordinates of display range 9999.999/-9999.999

2: automatically records the computer running coordinates and manually move the coordinates

3: Automatic switch between computer and manual control

4: computer-controlled automatically shielded manual control functions, two seconds after the return to manual function

1: ST button to press the handle into the lower-level setup

menu, the setup is complete press the OK button to return to the main work interface

2: Press the corresponding axis of the handle CL button four axis clear 0, according to the B1 replaced a line, press the OK button to exit the clear 0

3: The four-axis real-time recording computer running coordinates and manually move the coordinate value of the computer running data + manually move data

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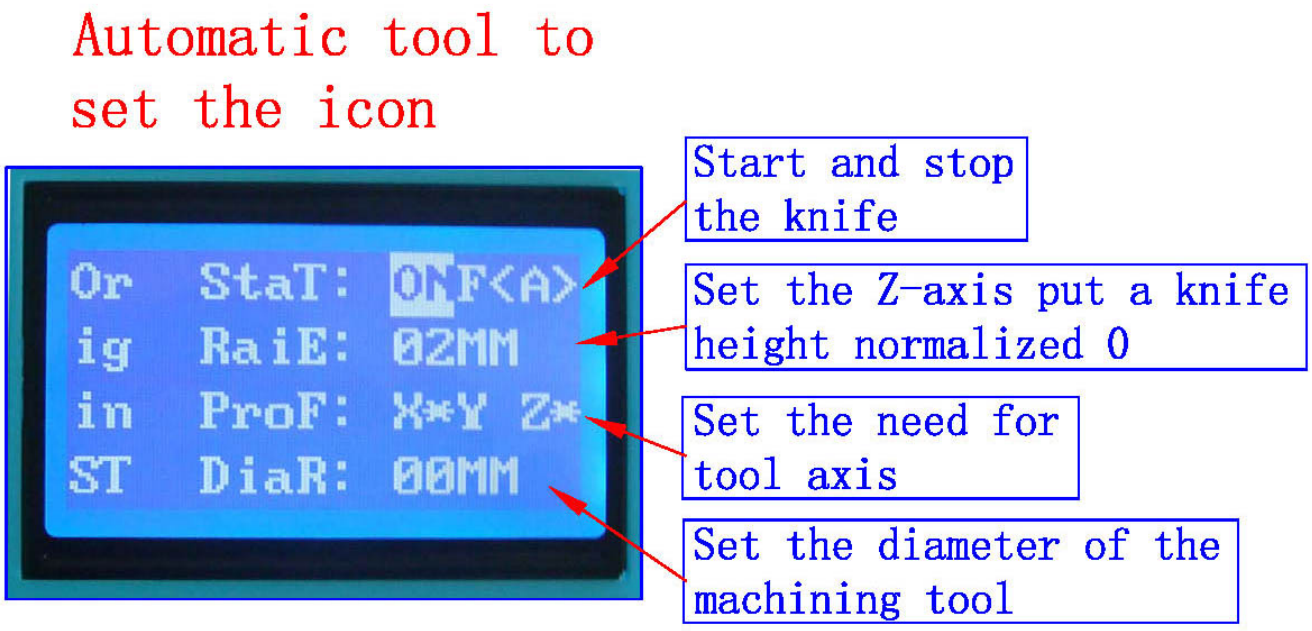

1: all settings automatic permanent preservation until the next set of updates
2: You can set the radius, put a knife height parameters
3: The driver auto-complete the knife, without the complexity of computer software operation, convenient tool change school knife, boot knife, batch processing adequately protected on the knife and other processed products correctly

1: In order to ensure the accuracy of the knife, the knife before check put a knife to the height of the parameters of the tool diameter is set correctly,

2: the need to make sure the knife instrument wiring and

limit switch wiring status is normal.

3: B2 keys and press to confirm OK to enter the automatic tool operation and automatically stop after the completion of。

4: Press the keyboard (A-) exit status of the school knife

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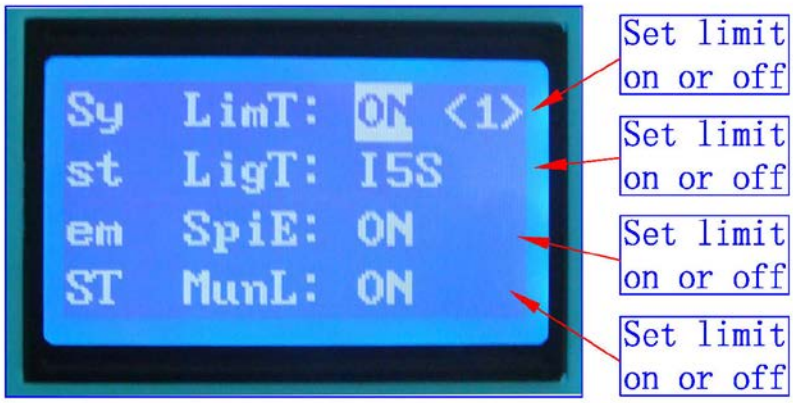
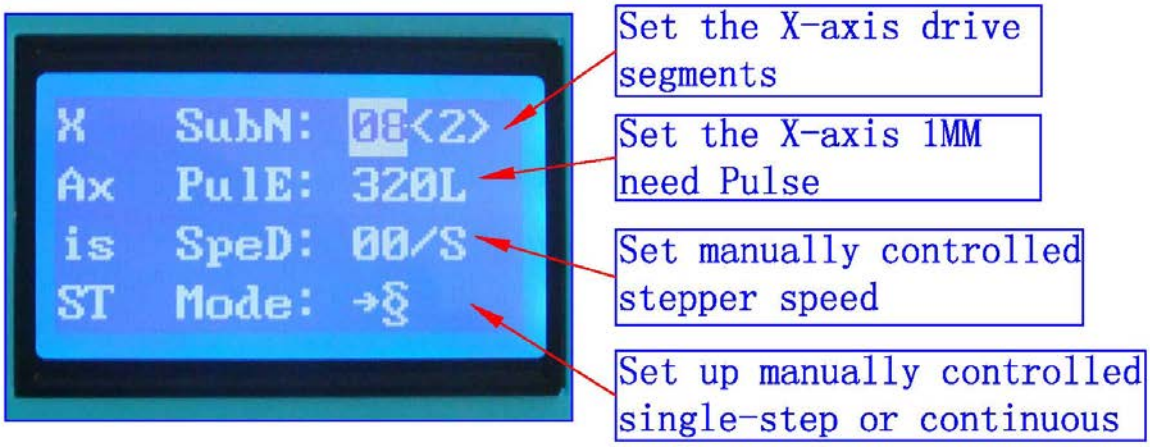
System Settings icon



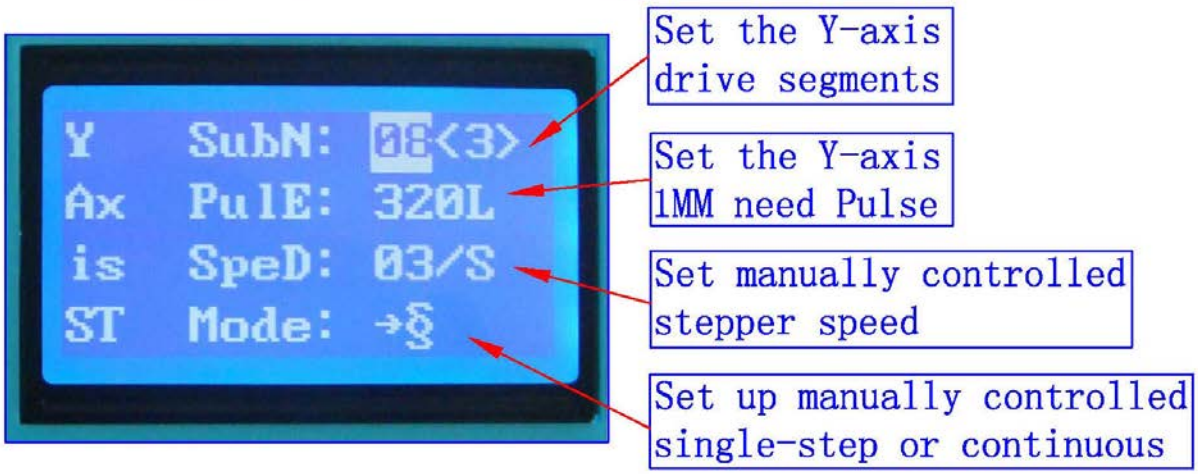
; All settings automatically saved permanently, until the next set update

X-axis parameter settings icon



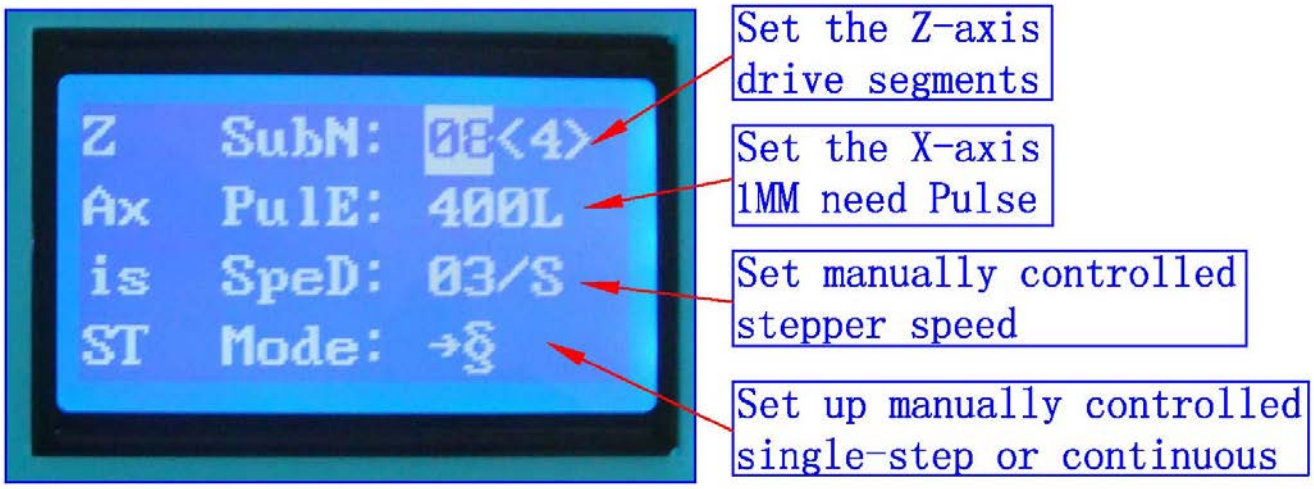
; All settings automatically saved permanently, until the next set update

Y-axis parameter settings icon



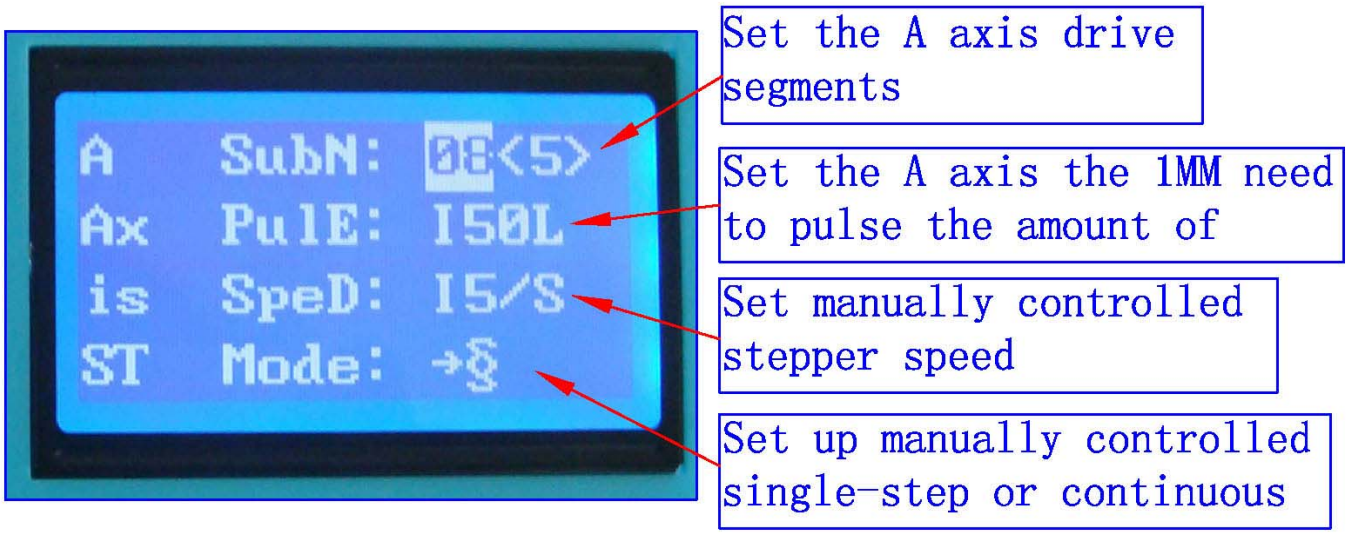
; All settings automatically saved permanently, until the next set update

Z-axis parameter settings icon



; All settings automatically saved permanently, until the next set update

A axis parameter settings icon



; All settings automatically saved permanently, until the next set update

1: ST button press the handle into the lower settings menu, the setup is complete press the OK button to return to the main interface of

2: shift downstream handle B1 button settings,

3: handle B2 button corresponding anti-white set at function selection

4: input handles digital keys to set the digital parameters

Before the test machine, please note the following

1,A test machine first to 12V voltage test machine, 42-step, please with 12-16V/DC power 57 stepper choose 16-24V/DC power, 86 stepper election 24-36V/DC power

2,the stepper motor power and current (model)

3, to determine the wiring of the stepper motor

二》The pin definitions

1》Parallel port control is defined as follows:

PIN14	PIN1	PIN3	PIN2	PIN1	PIN5	PIN4	PIN1	PIN7	PIN6	PIN16
Relay	X Allow	X Direction	X Pulse	Y Allow	Y Direction	Y Pulse	Z Allow	Z Direction	Z Pulse	0-10V PWM

2》Limit 1 ~ PIN9 defined as follows (figures defined inside the interface marked)

X-axis limit	Y-axis limit	Emergency stop	Z-axis limit	Alternative input	DC-
InterfaceP1	InterfaceP2	Interface P3	Interface P4	Interface P5	Interface P6-P9
Thecorresponding computerP12	Corresponding computerP13	Corresponding computer P15	Corresponding computer P11	Corresponding computer P10	GND

3》Output interface is defined (in the picture for 22 to 1)

P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
正	地	MO+	GND	MO-	XA+	XA-	XB+	XB-	YA+	YA-	YB+	YB-	ZA+	ZA-	ZB+	ZB-

Power is connected to 12 48V 8A (Optional according to the stepper motor operating current) above switching power supply, received marked on the power input interface。

12V power output is used to pick up the 12V cooling fan。

三》MACH software using the method

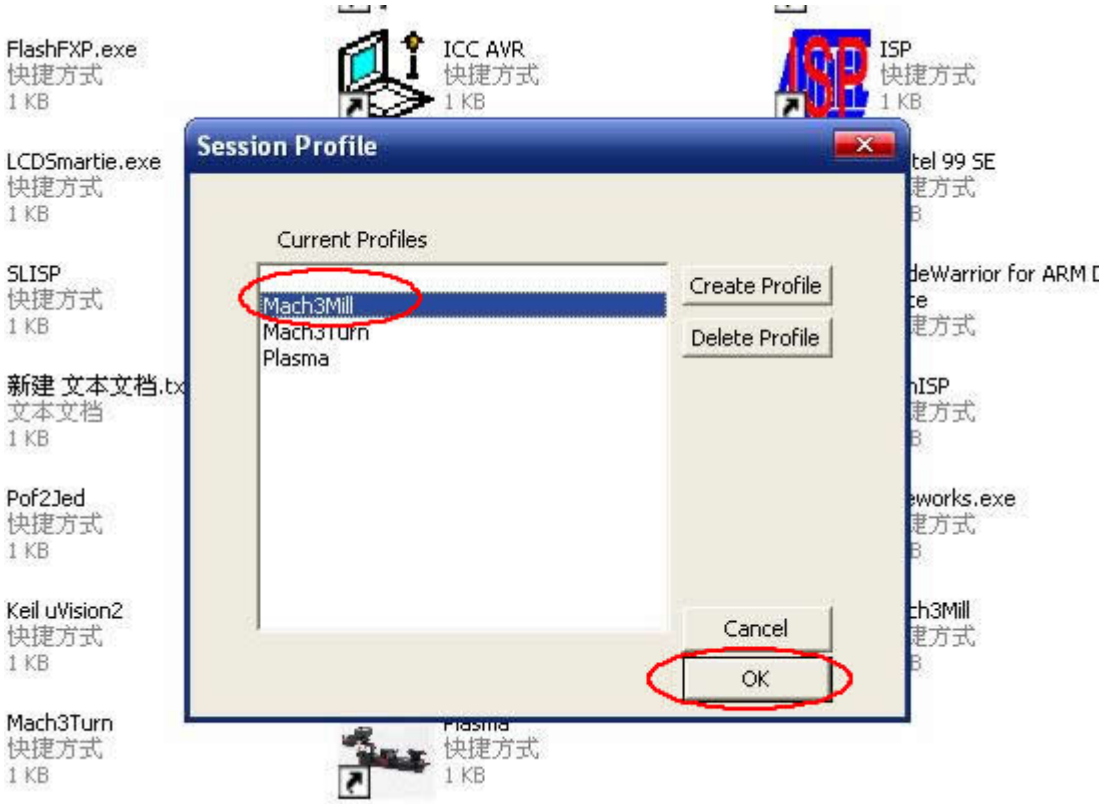


Figure1

Figure 1, open the MACH3 software, now mach3MILL then select OK

Figure 2

MACH3 open the interface shown in Figure 2, above the action button, where we first configure the MACH software。

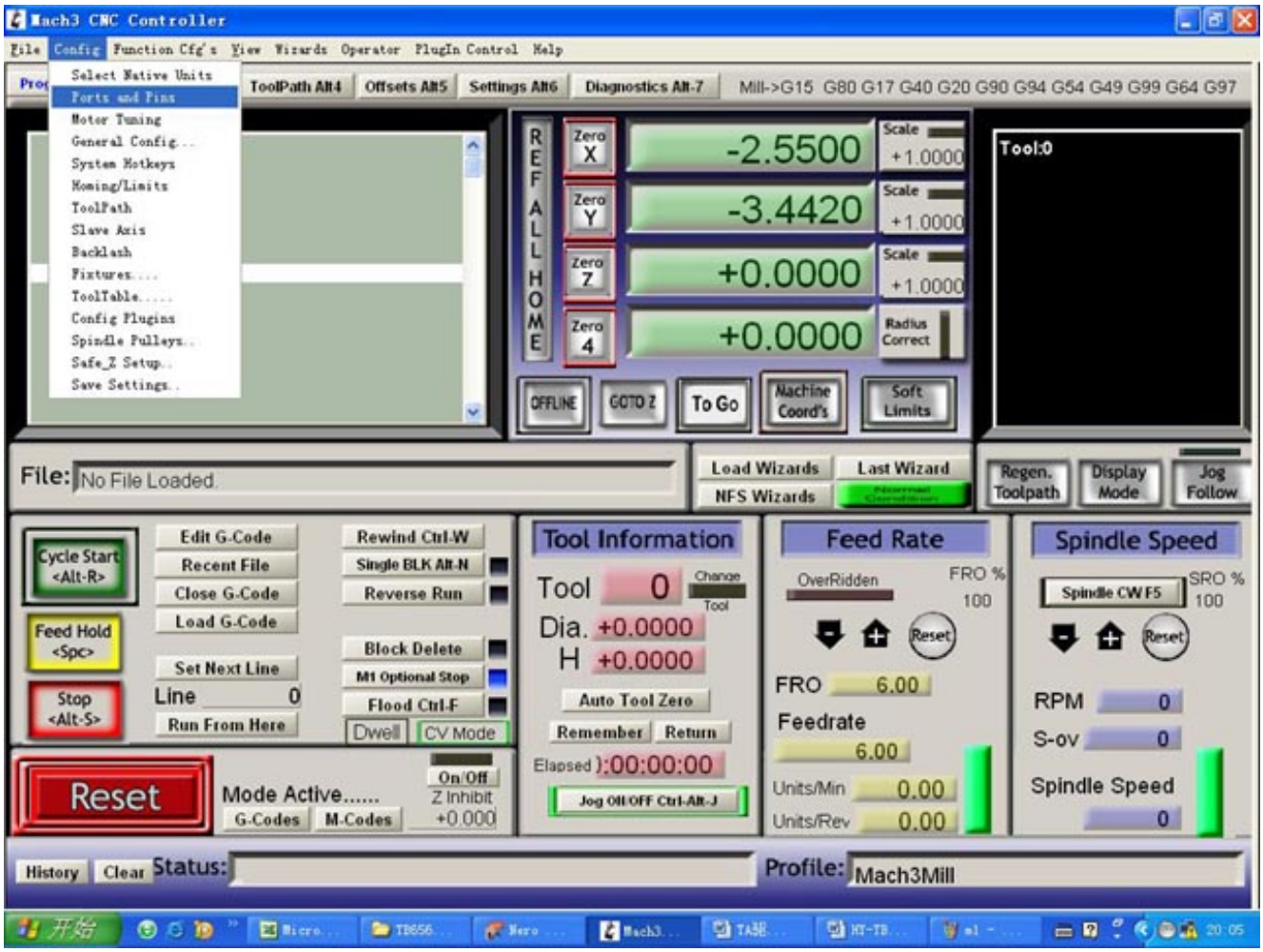


Figure 3

Figure 3, open the config menu PORT PIN menu

Figure 4

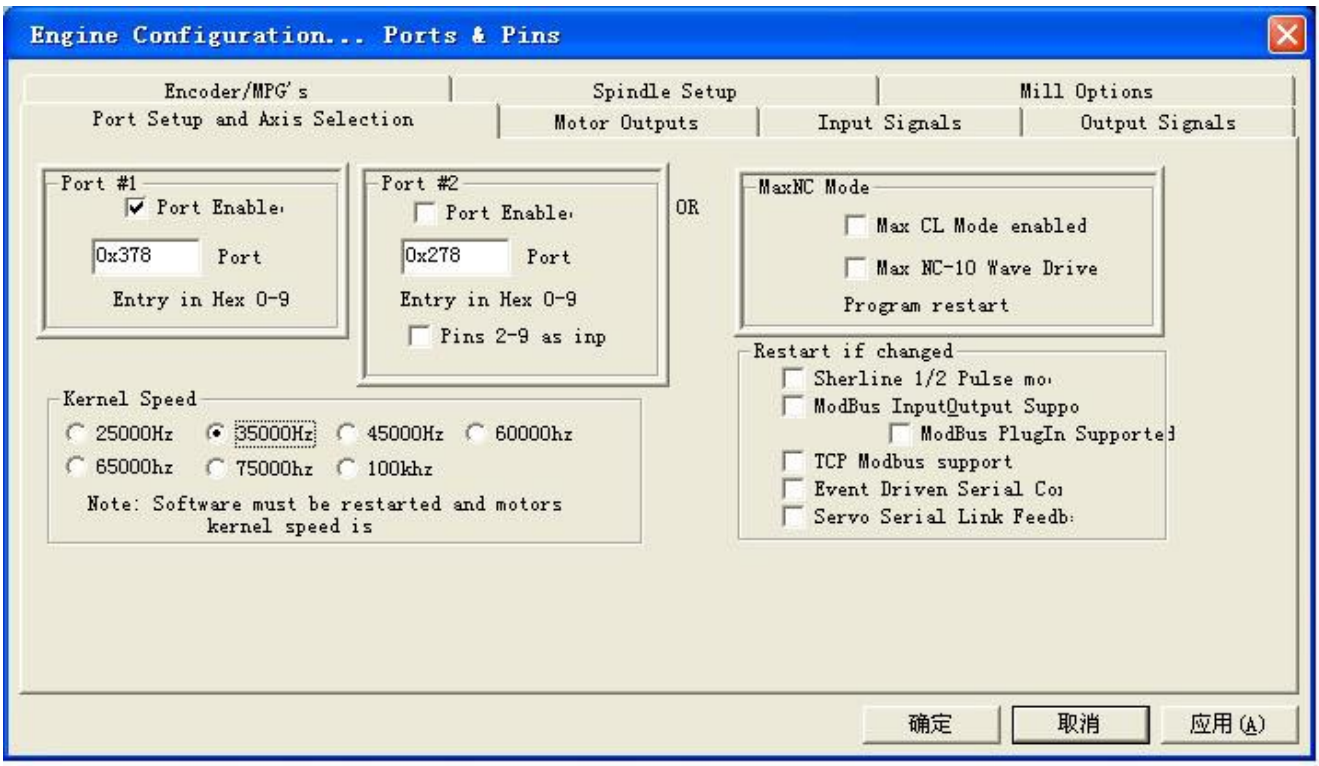


Figure 4

Set on the circle a place where you can set the fundamental frequency, this parameter of the motor rotation speed. Set up, select the circle place, the configuration of the definition of the foot, as shown in Figure5

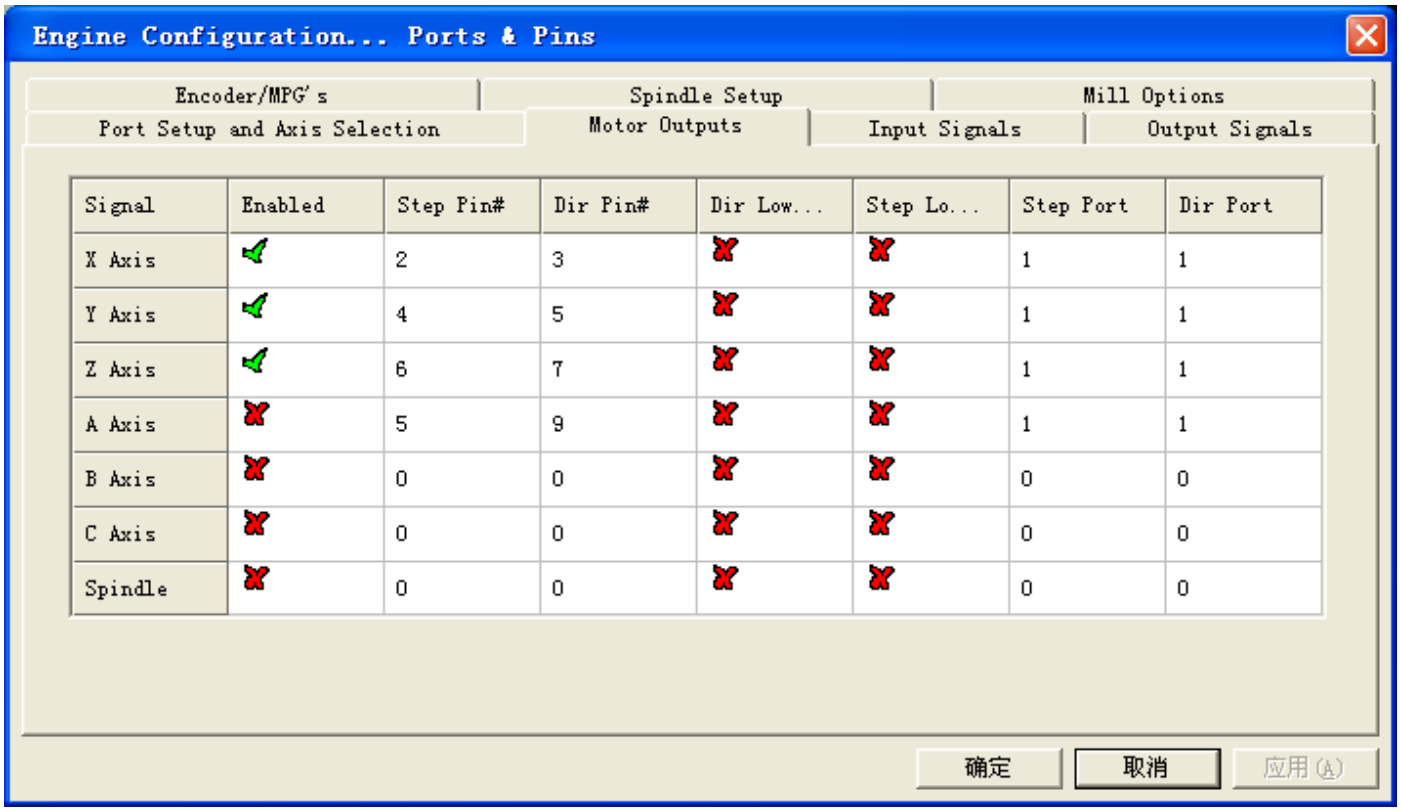


Figure5

According to the definition of the parallel port of the board, follow the map circle to indicate the definition modify the software settings。

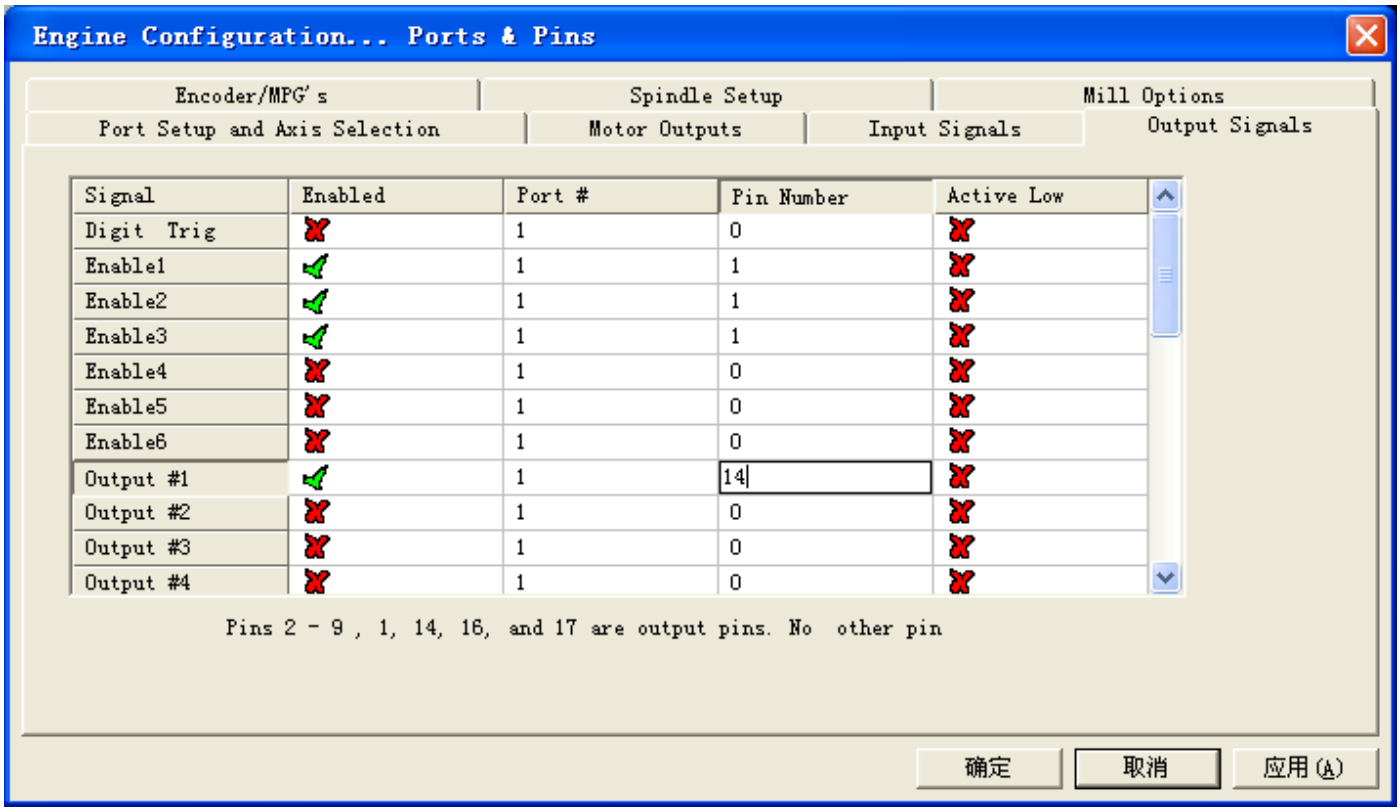


Figure 6

Then part in the selection output signals, as shown in Figure 6, according to the settings of the circle, set the appropriate。

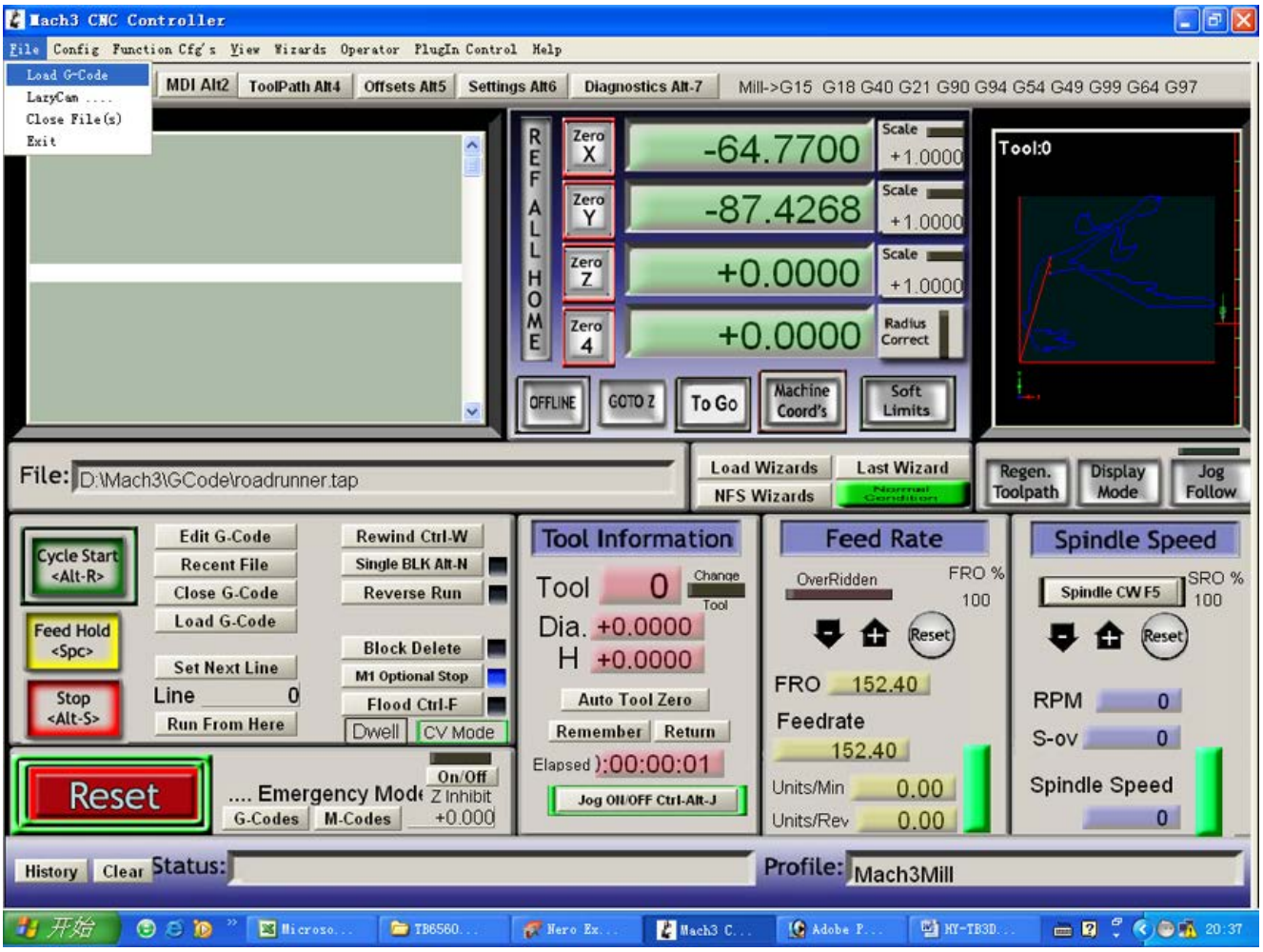


Figure 7

All set ok, you can open the G code need to run, as shown in Figure7

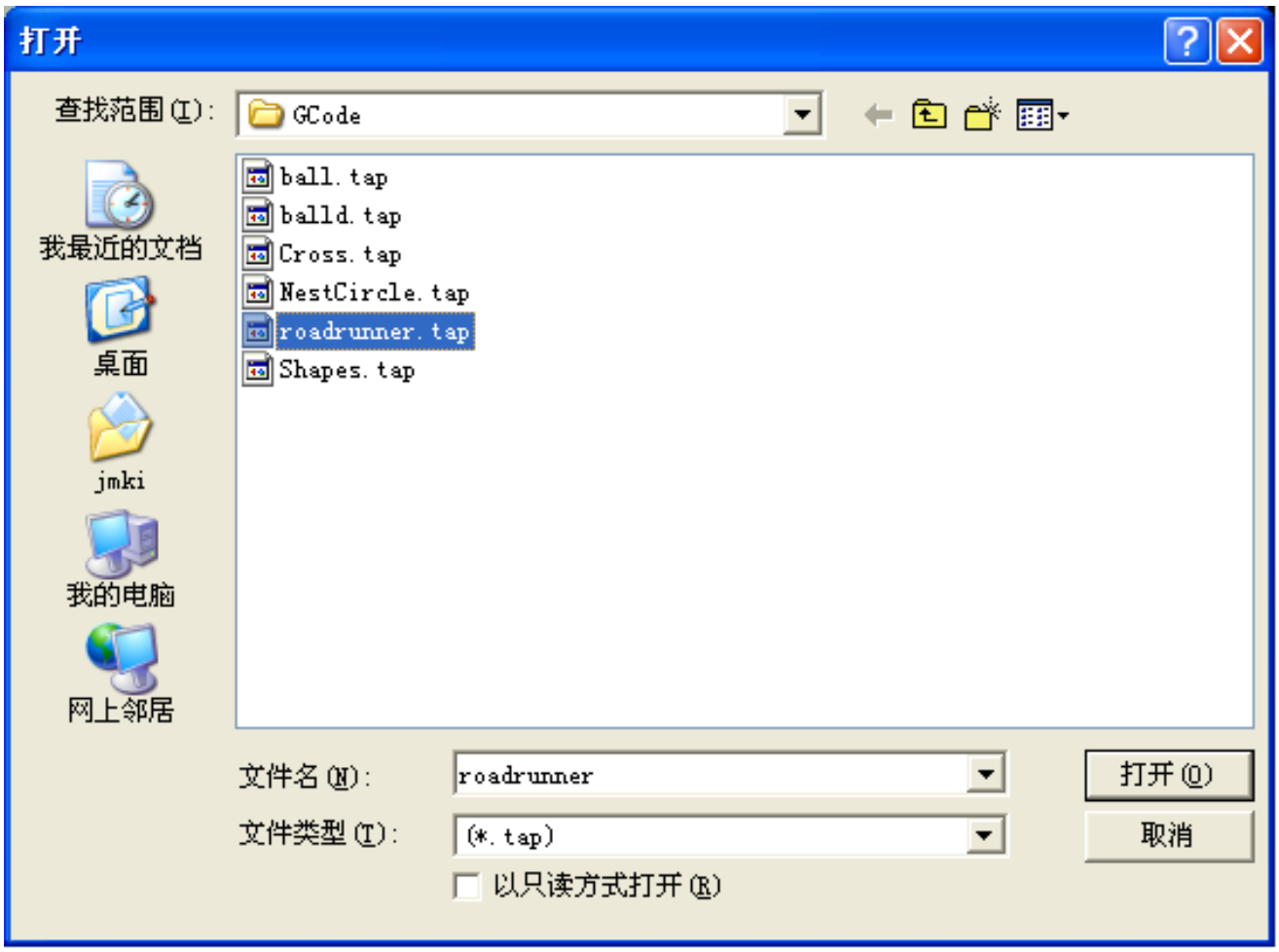

打开
查找范围(I):
GCode
ball.tap
balld.tap
Cross.tap
NestCircle.tap
roadrunner.tap
Shapes.tap
我最近的文档
桌面
jmki
我的电脑
网上邻居
文件名(N):
roadrunner
文件类型(T):
(*.tap)
以只读方式打开(R)
打开(O)
取消

Figure 8

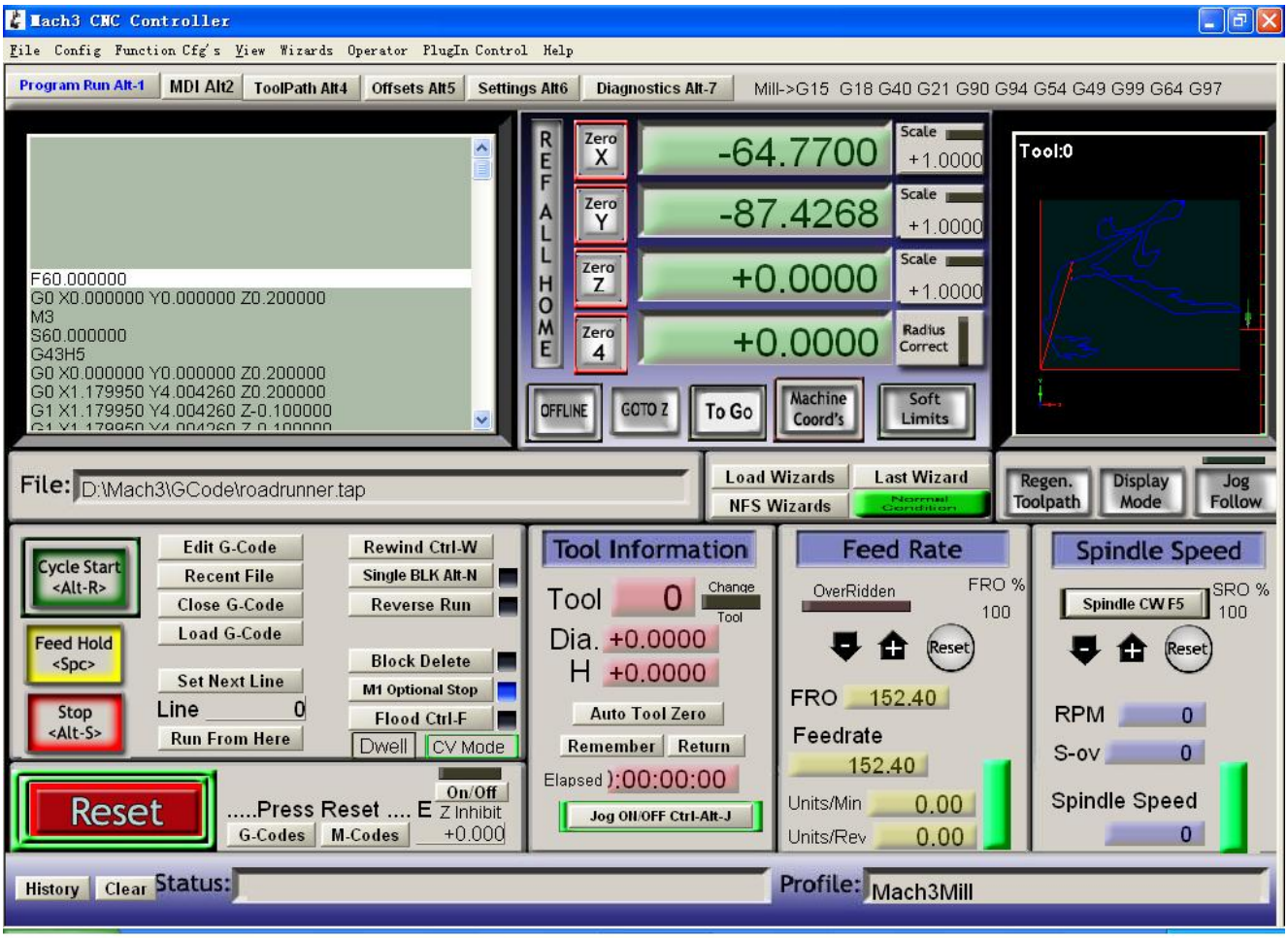


Figure 9

Open the G code, you can see the red the RESET flashing, you can use the mouse to click this RESET to stop flashing, then you can press circle the location CYCLESTART run.