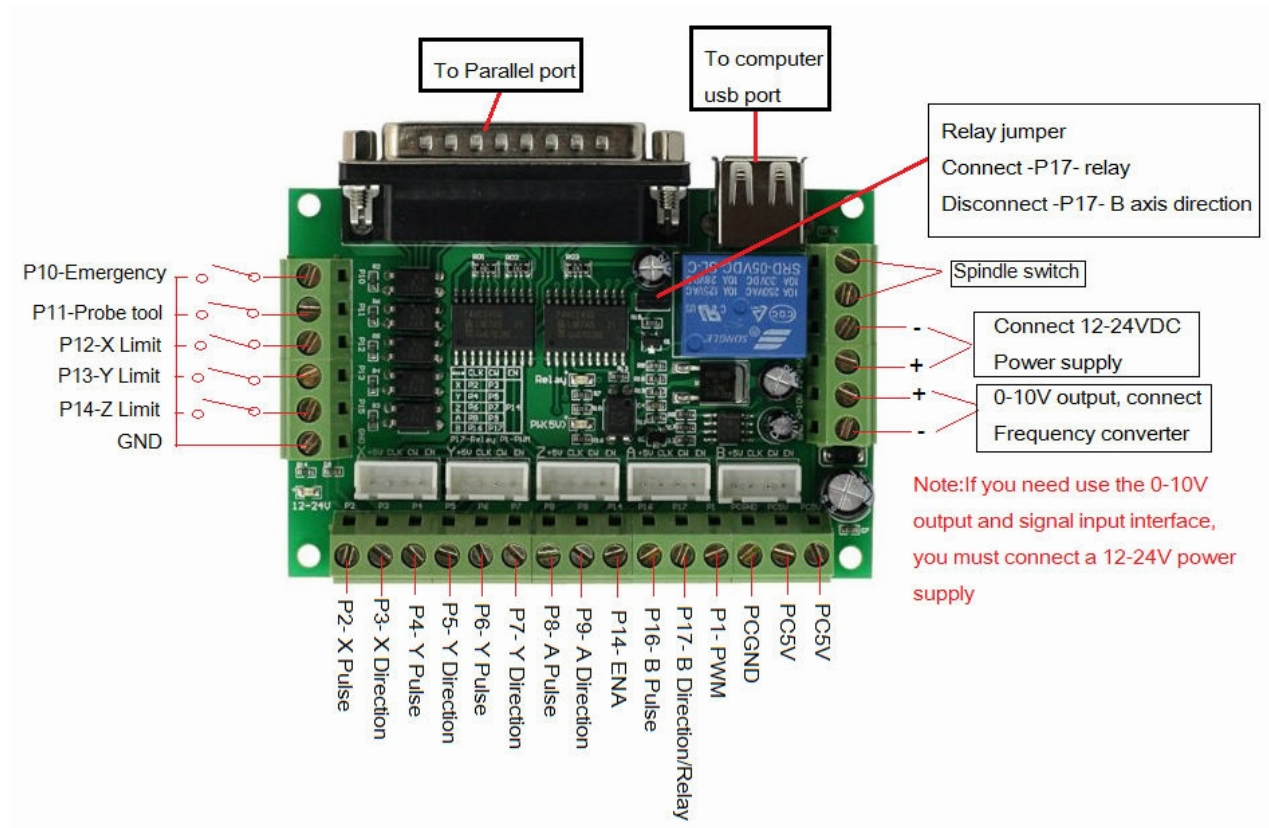


Mach3 5 Axis Breakout Board

Interface definition,electrical Drawing:



motor can be controlled.

8,P1 as PWM outputs can be controlled with optocoupler input spindle governor.

9,can be accessed by a common cathode or common anode input level to 5V drive.

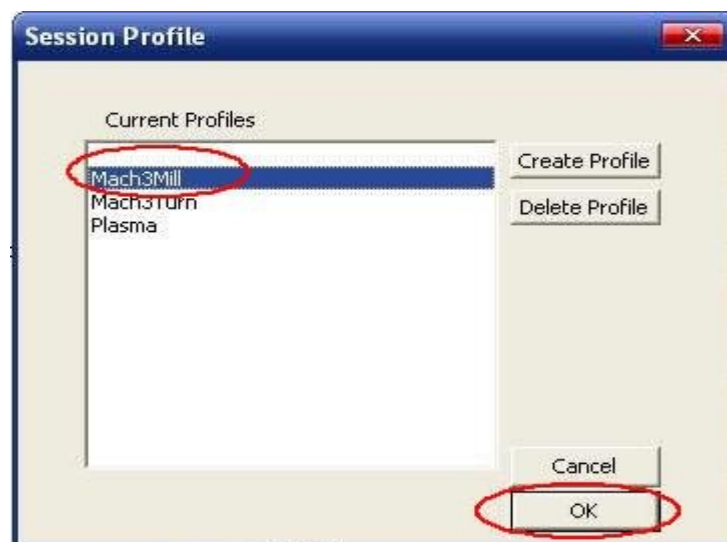
II、 Usage of MACH3

1、 Check mach3 driver is properly installed



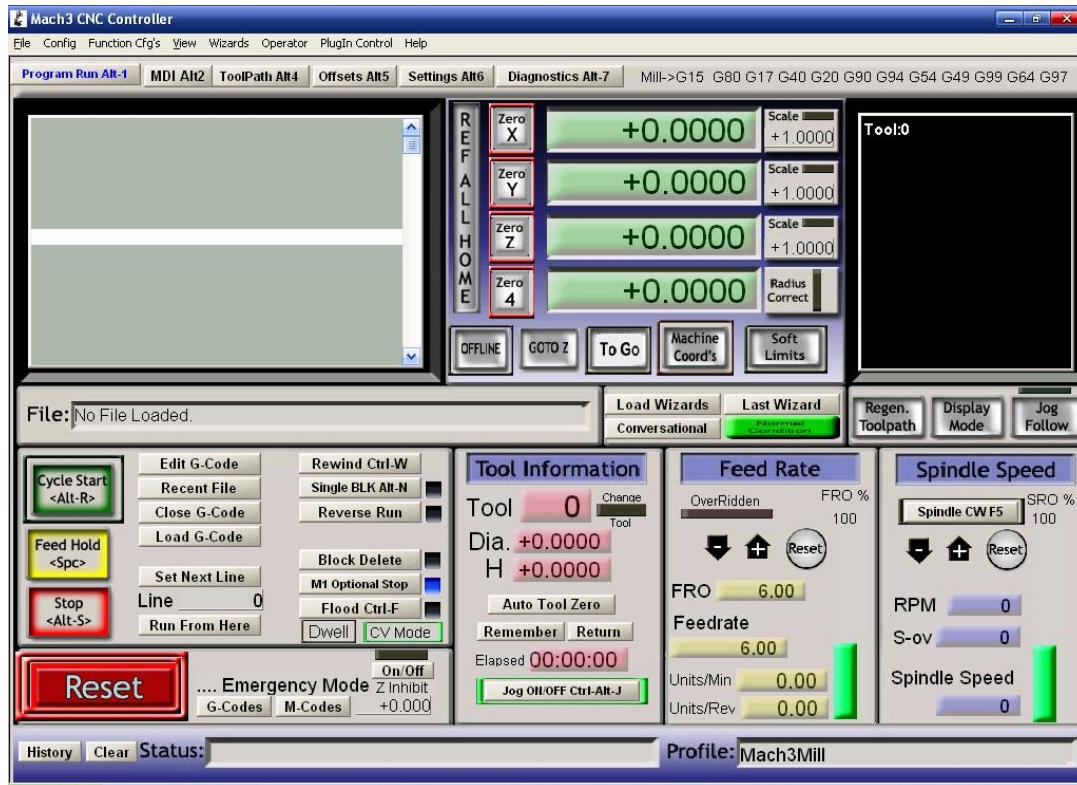
Note: "mach3 driver" can't have "!" or "?".

2、 Startup Mach3



open mach3

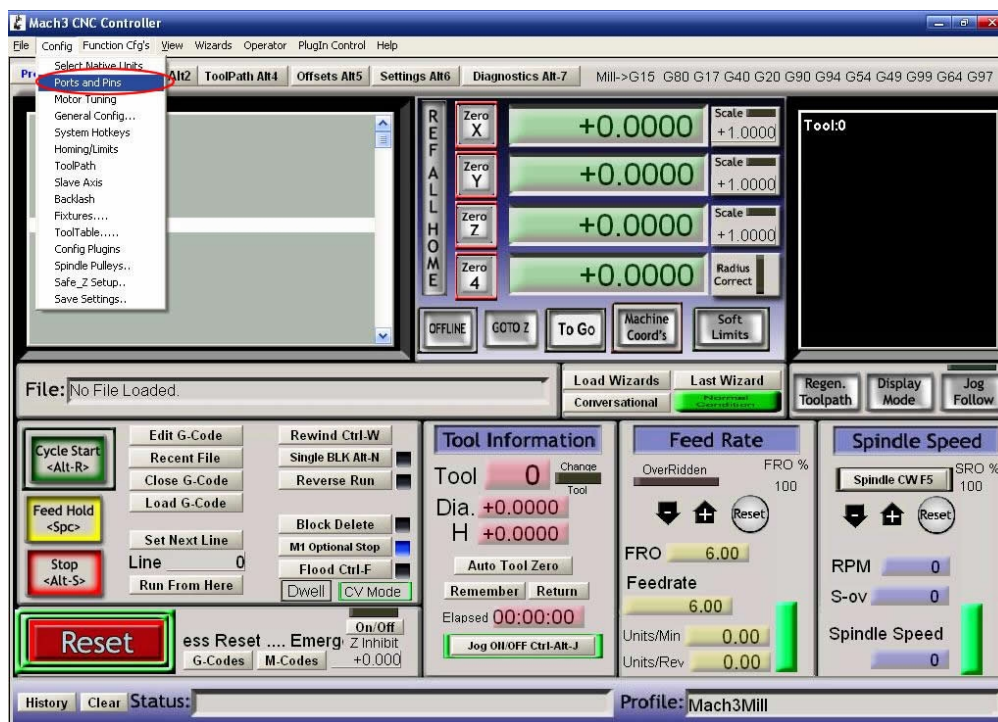
When you have installed the software, here are 3 icons on the desk, let's click the mach3Mill, as fig 11.



the main interface of march3

The main interface of MACH3 as fig 12 , some basic buttons on it,Here, we first configure MACH3.

3、 The basic set of mach3



set menu of mach3

(1)Motor outputs: follow the below picture set,then remember click apply!

Signal	Enabled	Step Pin#	Dir Pin#	Dir Low...	Step Lo...	Step Port	Dir Port
X Axis		2	3			1	1
Y Axis		4	5			1	1
Z Axis		6	7			1	1
A Axis		8	9			1	1
B Axis		16	17			0	0
C Axis		0	0			0	0
Spindle		1	0			1	1

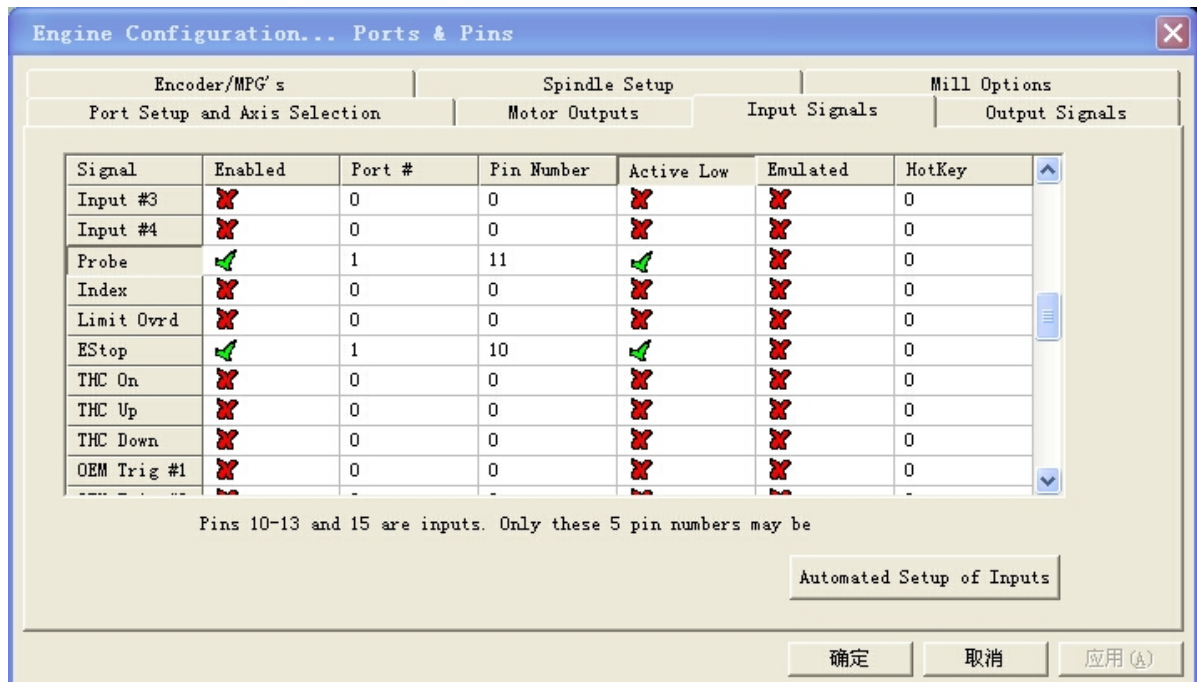
The direction of rotation of the stepper motor is concerned with the wiring, if the direction is wrong, you can adjust the "Dir Low Active".

(2)Input singles: follow the below picture set,then remember click apply!

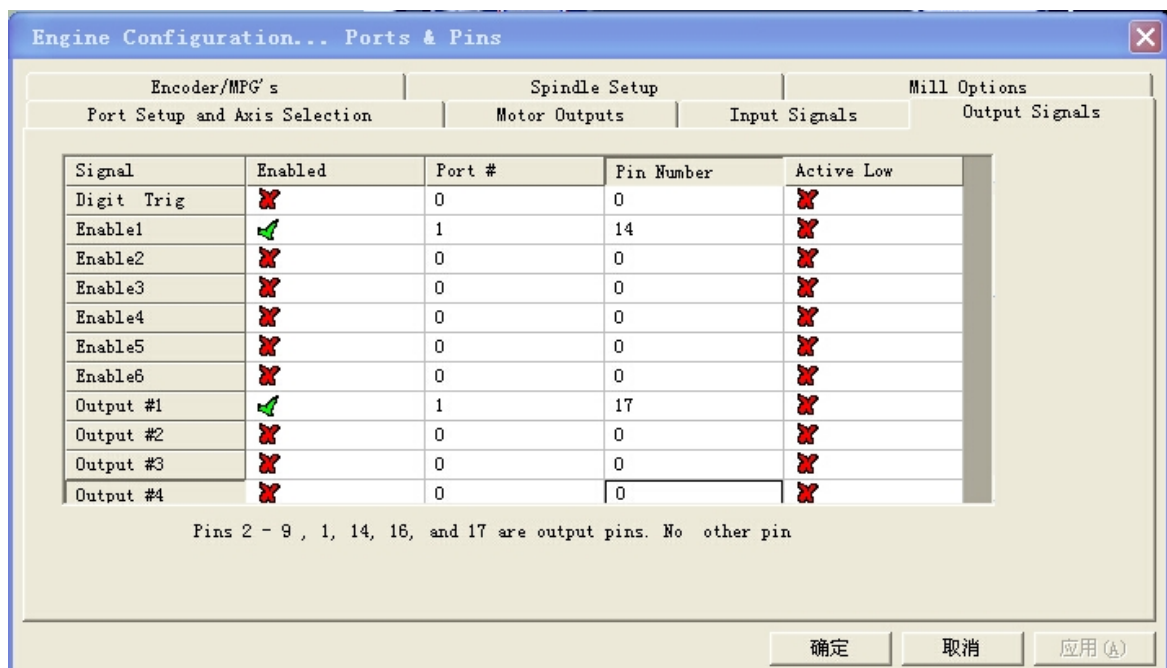
Signal	Enabled	Port #	Pin Number	Active Low	Emulated	HotKey
X ++		1	12			0
X --		1	12			0
X Home		0	0			0
Y ++		1	13			0
Y --		1	13			0
Y Home		0	0			0
Z ++		1	15			0
Z --		1	15			0
Z Home		0	0			0
A ++		0	0			0

Pins 10-13 and 15 are inputs. Only these 5 pin numbers may be

Automated Setup of Inputs



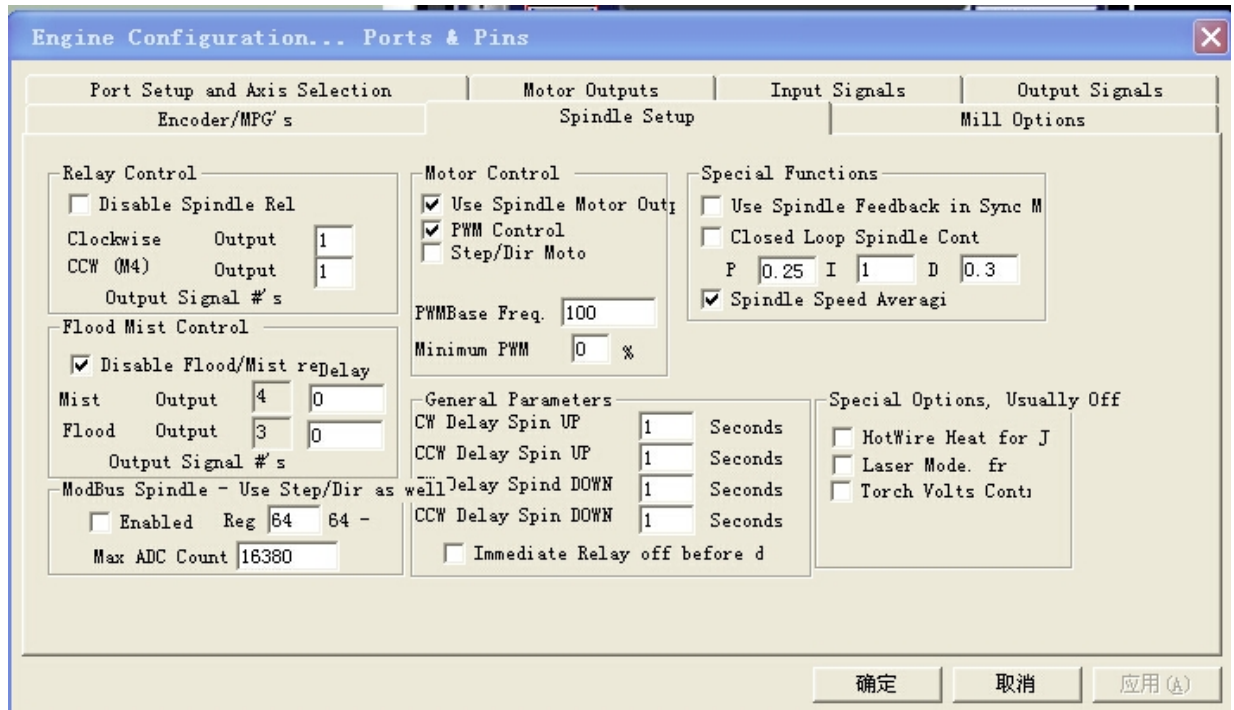
(3)Output singles: follow the below picture set,then remember click apply!



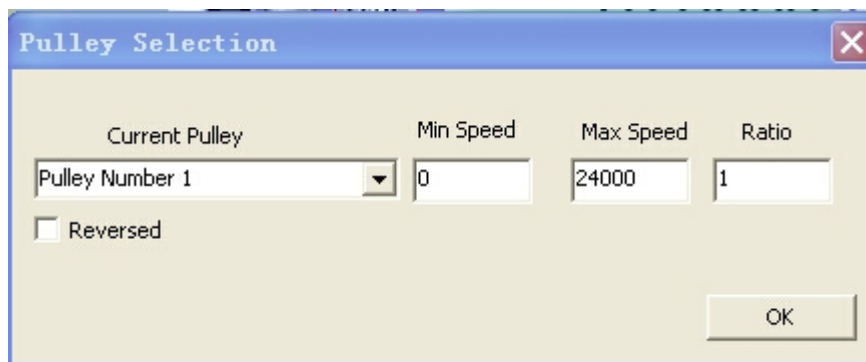
Enable1: Motor Enable Set -14 pin

Output#1: Spindle relay switch Set -17 pin

(4)Spindle step set: follow the below picture set,then remember click apply!

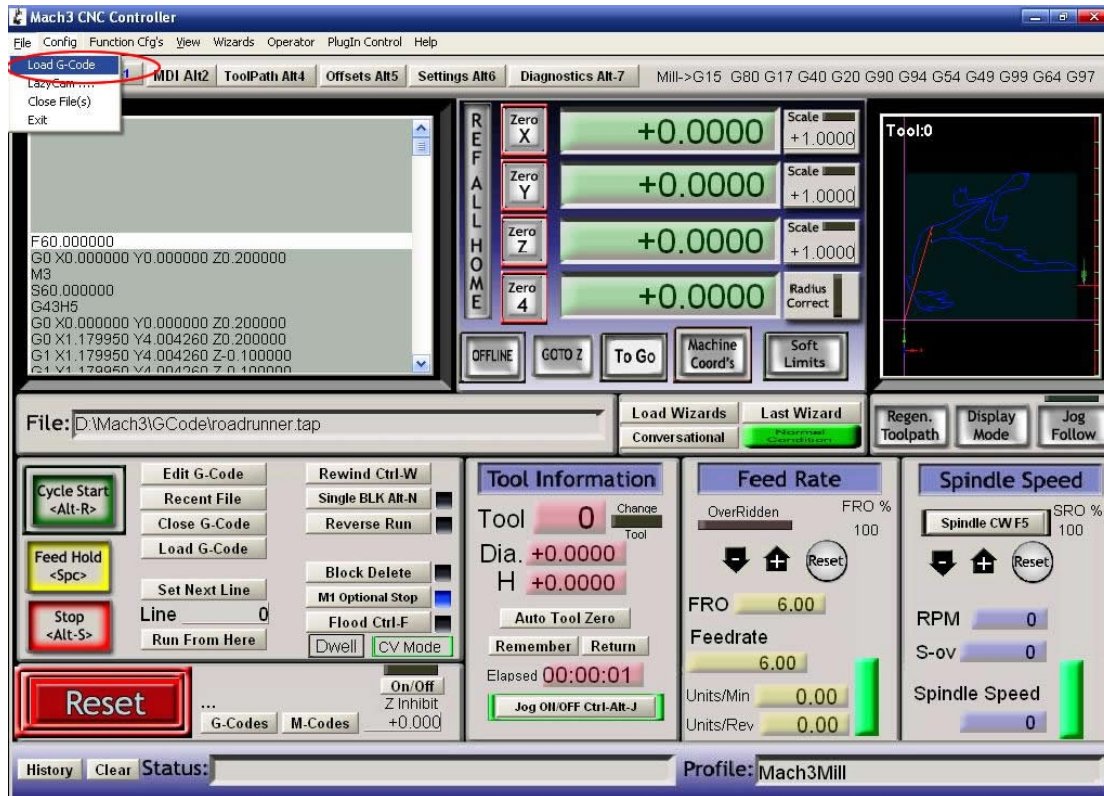


Using PWM control the speed, you need to set "spindle pulleys", as the below picture



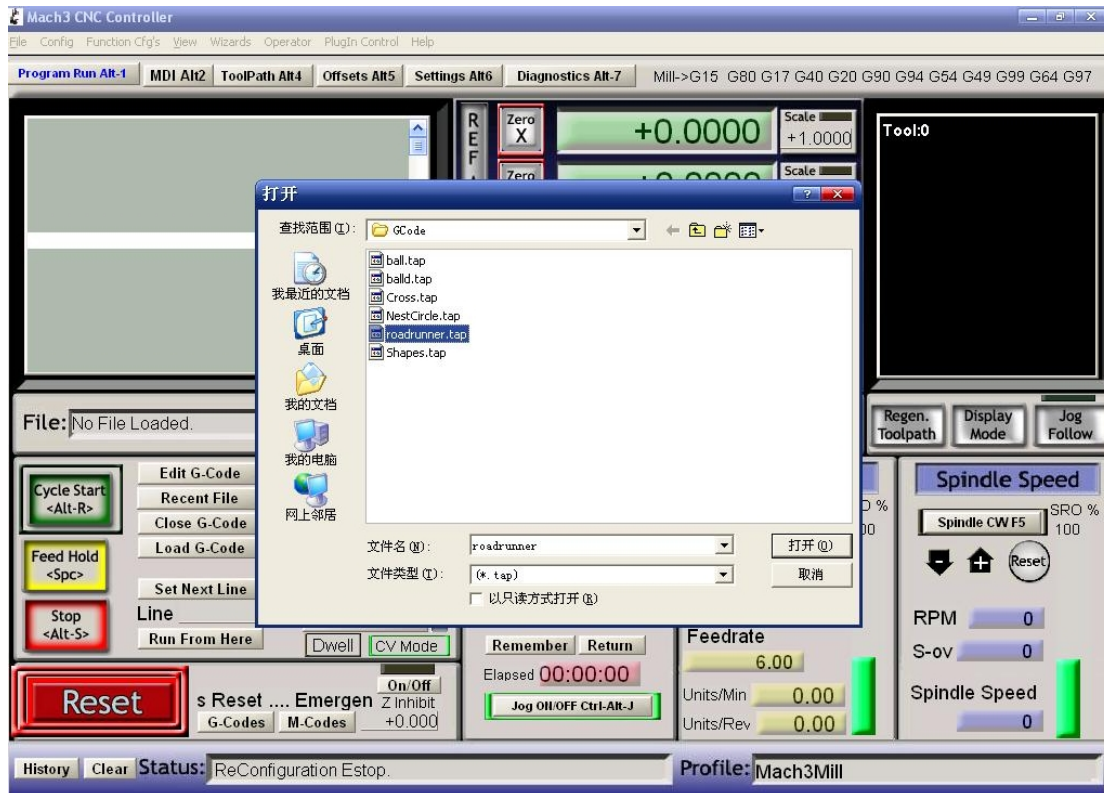
4、Running of G code

G is the numerical instructions control program code , mach3 for customers to test software comes with the G code, you can easily test machine.click the File,

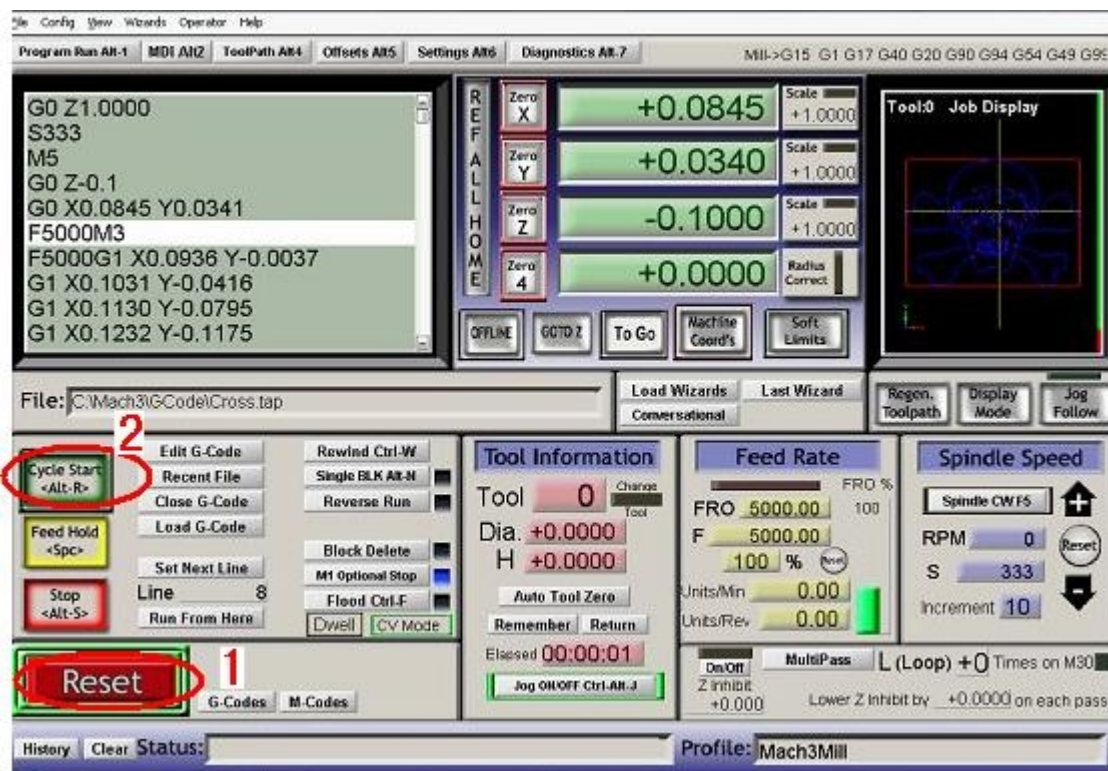


Open G code

Click the red circlet **Load G-code** and open the icon  Mach3 and click  GCode ,and choice a G code, the interface as follows :



Open the testing procedures of G



When you open the G code, you may watch on a flashing red button **RESET**, click it to stop, and click the **CYCLESTART**.

If you want to run your own G code for processing, find your location of G code,

and leading it in.,

5、 How to use the manual control interface of MACH3

If you want manual control, press the keyboard “TAB” as follows as :

