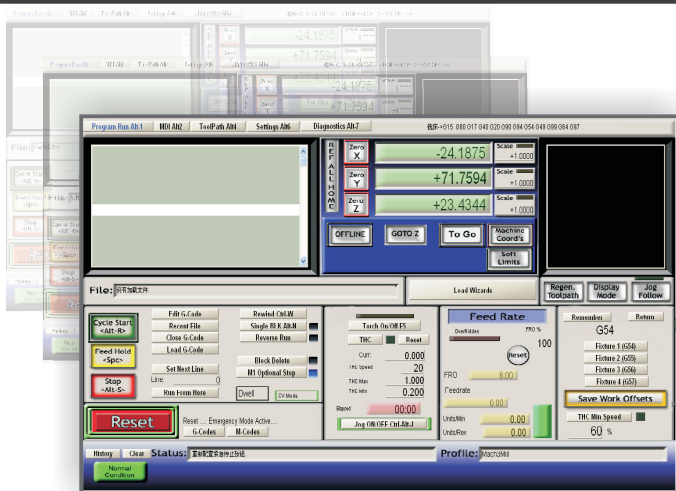




System for mach3

Parameter Settings The driver installation instructions



MACH3 software parameter settings

Installation Instruction

Mach3 software ready



This card is a Mach3 USB interface 4/6-axis motion control card.



The latest version of Mach3 official website:

<http://www.machsupport.com/downloads.php>

MKX Operating and Installation Instruction

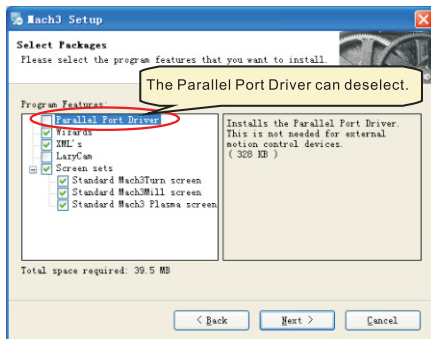
Abstract:

The MKX driver can be used under Windows XP, Windows 2000 and Windows 7 operating system. This document includes: MKX driver Installation Steps.MKX first run steps.shooting troubles

一、MKX Driver Installation


1. please download the latest Mach3 driver from Mach3 official website:<http://www.machsupport.com/downloads.php>
2. Install the Mach3:

The Parallel Port Driver does not require.



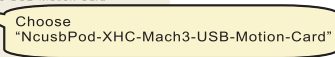
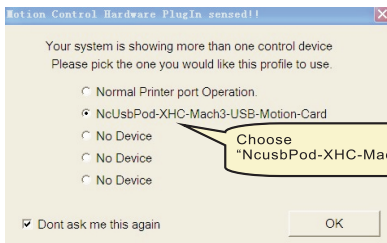
Installation Instruction

- 3.Prepare the USB cable
- 4.connect the usb cable to mks usb socket and insert the other end to the PC usb port.
- 5.the windows will automatically install the driver. Wait for the driver installation end
- 6.Install the mks card plug-in. copy the NCusbPod.dll to the Mach3\PlugIns folder.
- 7.copy the mach3mill.xml configure file to the mach3\directory.
if you don ' t copy the mach3mill.xml file.
you should do as next step



Copy to MACH3
directory

8. Open Mach3 software,Choose “NcusbPod-XHC-Mach3-USB
-Motion-Card” , Choose “Don't ask me this again”



Choose
"NcusbPod-XHC-Mach3-USB-Motion-Card"

9. if there is a black window in mach3,please click view->load screen,choose 1024.set.
10. press reset button and make it normal.don ' t flash.
Now everything should be ok.please do what you want.
If any problem please refer to shooting troubles.

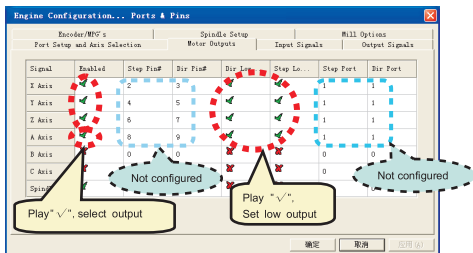
Installation Instruction

二、MKX first run steps.

When you first run mks, you should configure the motor parameter, home neg. motor move way. output and input io etc.

2. 1. X, Y, Z, A, B, C-axis output configuration

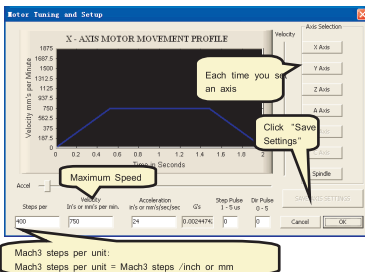
As shown below: (Config -> Ports and Pins)



If motor moving way reverse, please make Dir Low Reverse. change form \checkmark to x, or change from x to \checkmark .

2. 2. Motor parameter settings

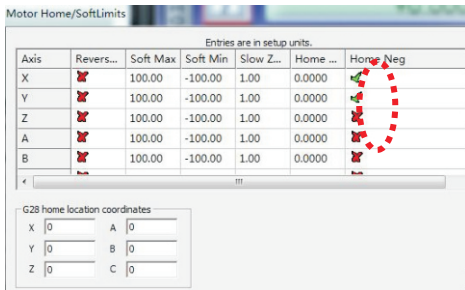
As shown below: (Config -> Motor Tuning): Set the motor acceleration, velocity, steps per



Installation Instruction

2. 3. The Mach3 Menu -> Config -> Homing/Limits

Home direction, depends on the “Home Neg” .



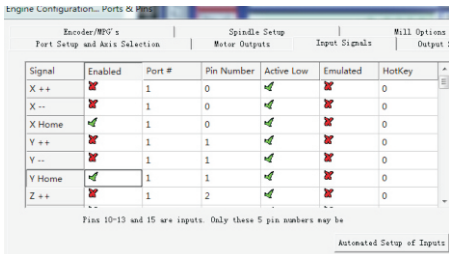
If home moving way reverse, please make “Home Neg” Reverse. change form ✓ to x, or change from x to ✓.

2. 4. Setup the input signals.

(Config -> Ports and Pins)

The Pin number is from 0.

Suggest Active Low = “✓” (Set Low signal Level for Inputs)



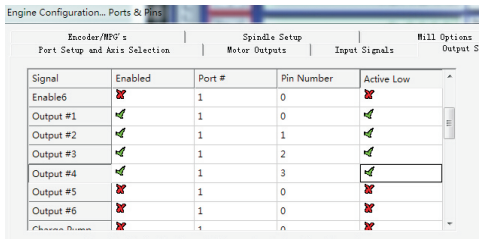
Installation Instruction

2. 5. Setup the Output signals

(Config -> Ports and Pins)

The output IO is corresponding with mach3 #Output x,

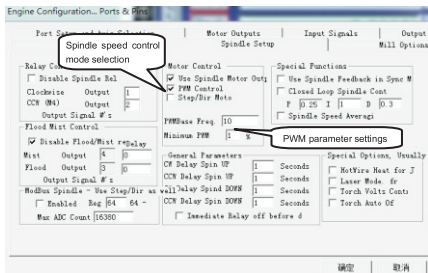
Suggest Active Low = “√” (Set Low signal Level for outputs).



2. 6. MACH3 spindle speed settings

MACH3 motion control card supports the following three kinds of Spindle speed control: PWM, pulse + direction, analog voltage from 0 to 10V

(Config -> Ports and Pins)



Installation Instruction

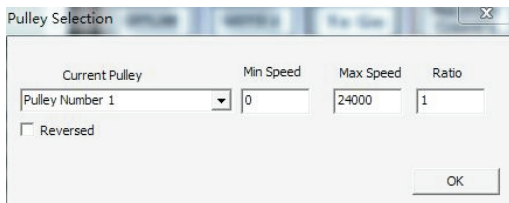
Parameters setting:

Spindle speed control mode selection: :

If the PWM control spindle speed, or use 0 to 10V analog voltage to control the spindle speed, then select the PWM control;

If using stepper + direction control spindle speed, select step/direction motors.

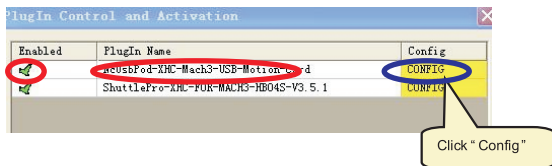
Then you should set the maximum spindle speed in config->spindle pulleys.



The Max Speed should be adapted to your spindle.

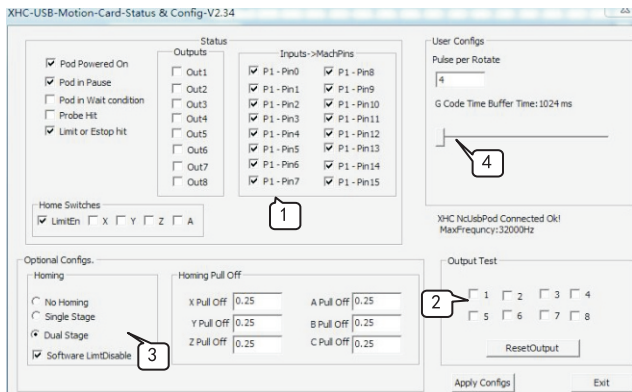
2. 7. USB motion control card configuration :

NcUsbpod plugin would display the motion control card and IO status (input and output) , configuration parameter settings.
Mach3 Config->Config Plugins, PlugIn Control and Activation



Installation Instruction

configuration window:



1. Input and output status: you could see the input io changed when you active or deactivate the input io.
2. Output Test: you could set output IO form 1-8 to high or low(✓) when you click ResetOutput
3. Homing Status: display whether the axis home switch is active.

Homing mode selection:

NO HOMING: no homing. just clear all machine coordinate data.

SINGLE STAGE: home over when touching the home switch

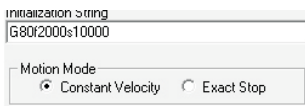
DUAL STAGE: home continue when touching the home switch and move back to fixed postion.

4. G code buffer time settings: Set G-code buffer time, according to the different PC performance, adjusting this parameter, usually don't move it.

三、Trouble shooting

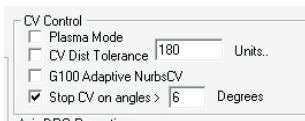
3. 1: Mach3 makes the Rectangle work to round.

3. 1. 1: Config->general config



First make sure you set the “constant velocity” . .

3. 1. 2: Please choose “stop cv on anagle> 6 degree” .



3. 2: Mach3 could not find the usb the motion card and prompt “Is the Xpod Inserted ok?it has ceased to respond...” .
3. 2. 1: Please make sure you have inserted the usb motion card to usb port.
3. 2. 2: If the spindle is on, please make sure the VFD has ground
3. 2. 3: Please make sure the input power of VFD has electrical filter to isolate noise.
3. 3: how to ref all home

Installation Instruction

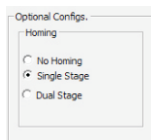
3.3.1: first enable home io. config->ports and pins-> input signals, enable Xhome, yhome, zhome. set the Port# to 1, Pin number : 0, 1, 2 , active low: ✓.

3.3.2: Open our plugin: config->config plugins.

choose Ncpod... click Config.

In The plugin window: choose

“Single Stage/Dual stage.”



3.3.3. Make sure the home switch signal is ok.

3.3.4. Click the mach3 button “ref all home”

3.3.5. If homing way revers, please open mach3

config->Homing/limits. make Home neg reverse.

Entries are in setup units.								
Axis	Revers...	Soft Max	Soft Min	Slow Z...	Home ...	Home Neg	Auto Z...	Spr ^
X		100.00	0.00	1.00	0.0000			20
Y		100.00	0.00	1.00	0.0000			20

3.4: Mach3 will auto exit when inserting or pulling up the usb motion card.

Please pull up other usb devices, such as usb keyboard. then insert usb motion card again.

Mach3 indication

1.Is the Xpod Inserted ok?it has ceased to respond...

Usb motion card is lost.

2.XHC ncusbpod connected

Xhc usb motion card is conneted ok.

3.Probe ignore, active at call for probe

Probe signal is active, probe ignore.

4.Too fast for pulley using max

The speed of spindle has overrun the maximum speed .

5.K word given for arc in xy plane. block......

Mach3 don't support the file.



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<http://www.cdxhctech.com>