

Mach3 Motion Control Card

Install Mach3 Software if you haven't already

Insert Disk

Plug in 'Mach3 Motion Card' using the supplied USB cord.

Computer will then search for and install the necessary drivers. May take up to 5 minutes.

Open the disks' contents and locate the folder, "USB card driver-v2.35", and open it

The NcUSBPod.dll is the card driver. Please copy it to the Mach3\Plugins directory (C:\Mach3\Plugins)

The Mach3MotionControlCard.xml is the Mach3 configuration file, please copy it to the Mach3 directory (C:\Mach3)

Now open Mach3 Loader and select Mach3millUSBMotionCard

Mach 3 will now open and ask to select a plug in

Select "NcUsbPod-XHC-Mach3-USB-Motion-Card"

You should now be able to run your machine

One more thing:

Close out Mach3 and go back into your C:\Mach3 directory

Go back into the CD contents and open "USB card driver-v2.35"

Copy the file "M930.m1s" to C:\Mach3\macros\ Mach3MotionControlCard

You are now complete

Enjoy.

Mach 3 Config.

Engine Configuration... Ports & Pins

Port Setup and Axis Selection | Motor Outputs | Input Signals | Output Signals | Encoder/MPG's | Spindle Setup | Mill Options

Port #1

Port Enabled

Port Address

Entry in Hex 0-9 A-F only

Port #2

Port Enabled

Port Address

Entry in Hex 0-9 A-F only

Pins 2-9 as inputs

OR

MaxNC Mode

Max CL Mode enabled

Max NC-10 Wave Drive

Program restart necessary

Kemel Speed

25000Hz
 35000Hz
 45000Hz
 60000Hz
 65000Hz
 75000Hz
 100khz

Note: Software must be restarted and motors returned if kemel speed is changed.

Restart if changed

Sherline 1/2 Pulse mode.
 ModBus InputOutput Support
 ModBus PlugIn Supported.
 TCP Modbus support
 Event Driven Serial Control

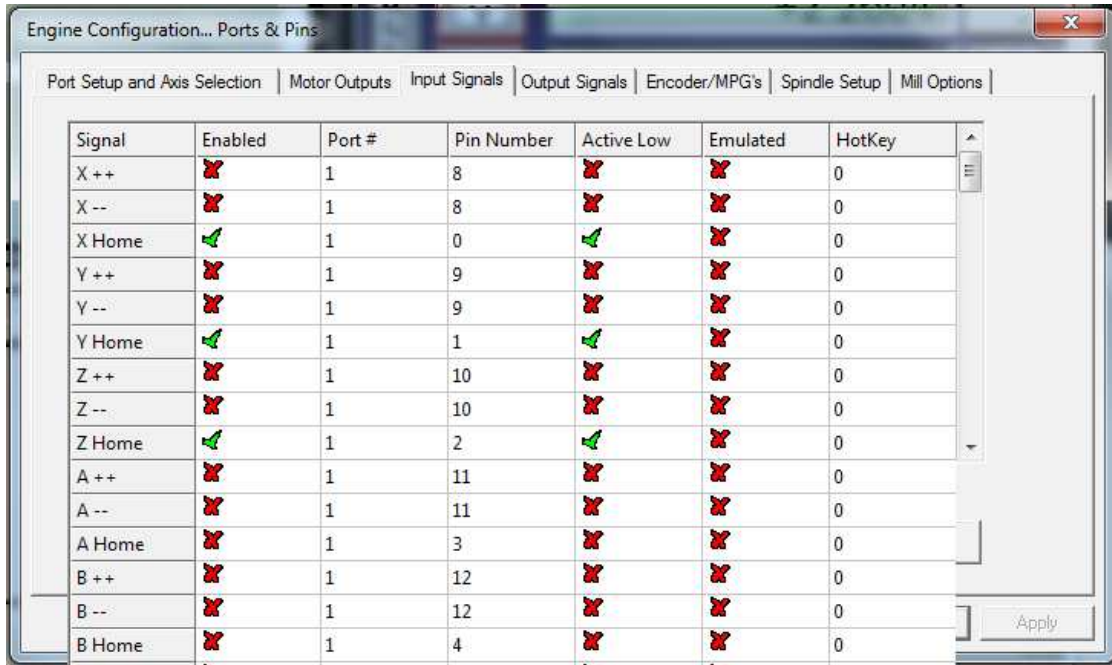
OK Cancel Apply

Engine Configuration... Ports & Pins

Port Setup and Axis Selection | Motor Outputs | Input Signals | Output Signals | Encoder/MPG's | Spindle Setup | Mill Options

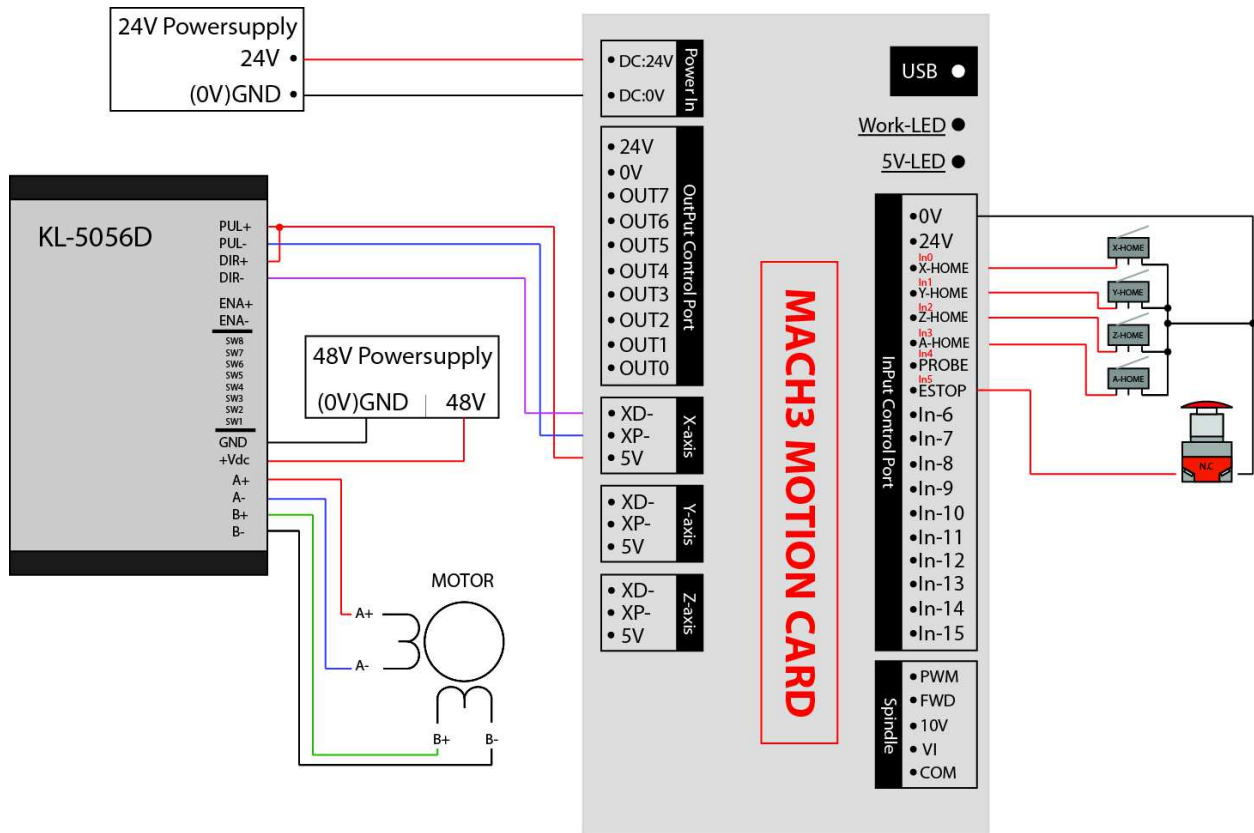
Signal	Enabled	Step Pin#	Dir Pin#	Dir LowActi...	Step Low A...	Step Port	Dir Port
X Axis		2	6			1	1
Y Axis		3	7			1	1
Z Axis		4	8			1	1
A Axis		5	9			1	1
B Axis		10	11			1	1
C Axis		12	13			1	1
Spindle		0	0			1	1

OK Cancel Apply



Signal	Enabled	Port #	Pin Number	Active Low	Emulated	HotKey
X ++	<input checked="" type="checkbox"/>	1	8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
X --	<input checked="" type="checkbox"/>	1	8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
X Home	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Y ++	<input checked="" type="checkbox"/>	1	9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Y --	<input checked="" type="checkbox"/>	1	9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Y Home	<input checked="" type="checkbox"/>	1	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Z ++	<input checked="" type="checkbox"/>	1	10	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Z --	<input checked="" type="checkbox"/>	1	10	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Z Home	<input checked="" type="checkbox"/>	1	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
A ++	<input checked="" type="checkbox"/>	1	11	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
A --	<input checked="" type="checkbox"/>	1	11	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
A Home	<input checked="" type="checkbox"/>	1	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
B ++	<input checked="" type="checkbox"/>	1	12	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
B --	<input checked="" type="checkbox"/>	1	12	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
B Home	<input checked="" type="checkbox"/>	1	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
C ++	<input checked="" type="checkbox"/>	1	13	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
C --	<input checked="" type="checkbox"/>	1	13	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
C Home	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Input #1	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Input #2	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Input #3	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Input #4	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Probe	<input checked="" type="checkbox"/>	1	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Index	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
Limit Ovr	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
EStop	<input checked="" type="checkbox"/>	1	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
THC On	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
THC Up	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
THC Down	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
OEM Trig #1	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
OEM Trig #2	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
OEM Trig #3	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
OEM Trig #4	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
OEM Trig #5	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
OEM Trig #6	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
OEM Trig #7	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
OEM Trig #8	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
OEM Trig #9	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
OEM Trig #10	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
OEM Trig #11	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0

Wiring Diagram



	Parameter Description	
Axis output control:	Drive Current	Isolated open collector output; 5V,20mA
	Drive	Pulse + direction output
	Output frequency	400KHZ
	axes	MK3:3-axis;MK4:4-axis;MK6:6-axis
	Isolation Voltage	3.5KV
Spindle inverter output: 3 types of output modes	Analog voltage output	0-10V
	PWM output	5V, 1HZ, Duty;0-100%
	Pulse + direction output	5V,15HZ to 4KHZ
8 IO output	Drive Current	Isolation:50mA, 25V
	Isolation Voltage	3.5KV
16 IO output	Input Current	Isolated inputs, 5mA, maximum voltage 25V
	Isolation Voltage	3.5KV
USB interface	Complies with USB2.0 Standard	