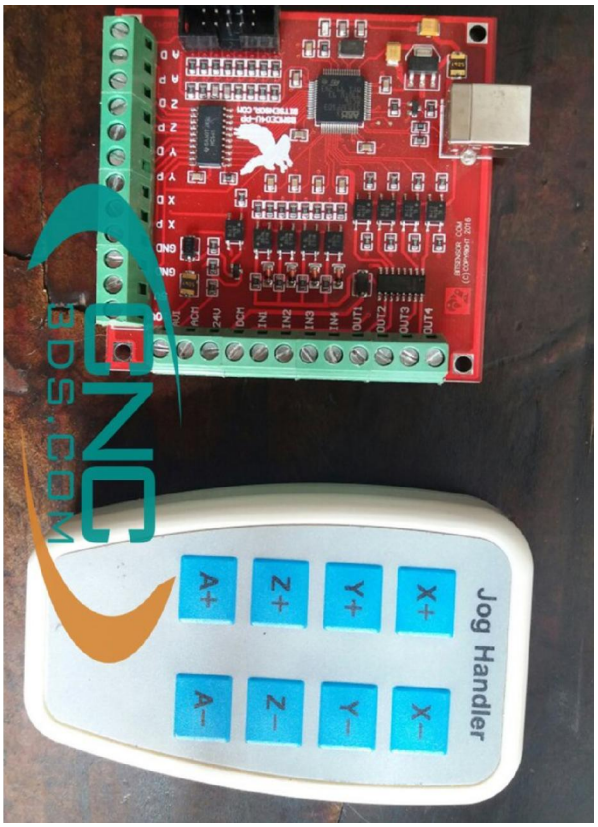
CNC3DS - Hướng dẫn cài đặt và sử dụng bàn phím mạch mach3 usb

https://cnc3ds.com/products/bob-mach3-usb



The following describes each pin:

 5V positive, 5V negative: Provides a DC 5V power supply, which can be used to power the handwheel

 X axis, Y axis, Z axis, A axis: the axis switch connected to the handwheel, used

To select the axis to be jogged

 A and B: encoder outputs A and B connected to the handwheel

 X10: Enlarge the handwheel speed by 10 times

 X100: Enlarge the handwheel speed by 100 times

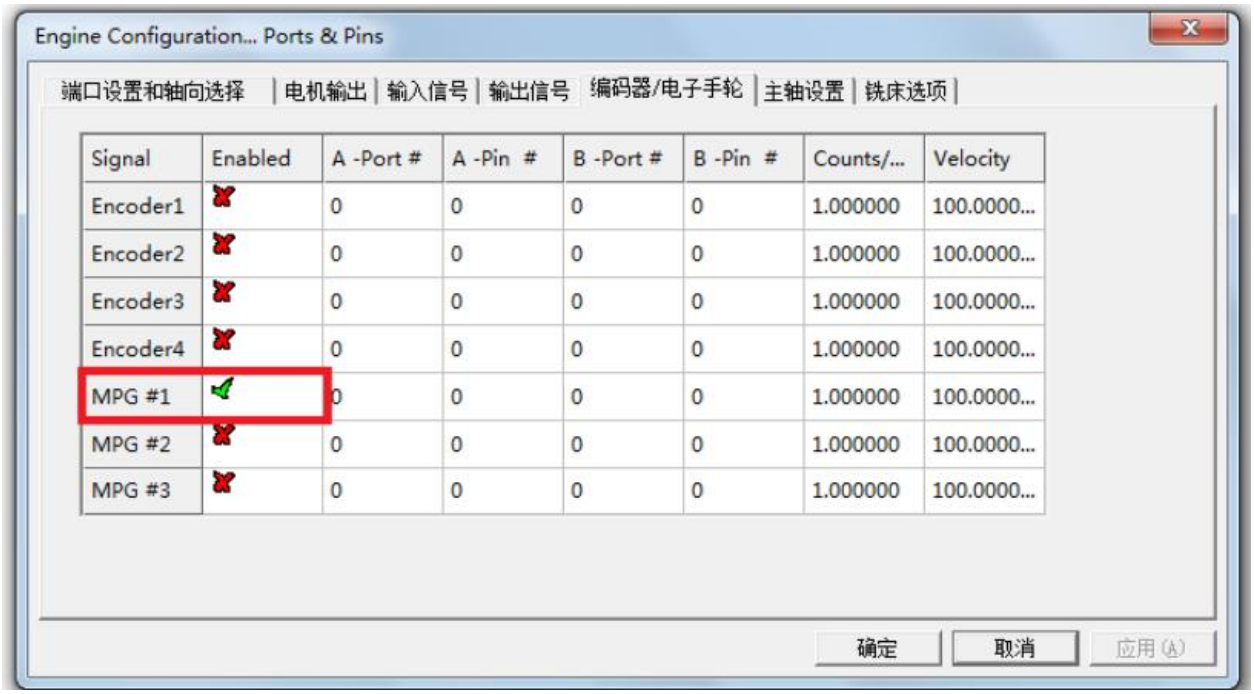
The handwheel interface is compatible with the Weihong system handwheel. Weihong 15-core handwheel is connected to this interface.

table:

Mach3's handwheel settings

After connecting the handwheel, it must be set in Mach3 to turn on the handwheel jog function. Set RNR all-round USB motion control card V2.0

Setting method: Select menu [Config], select [Ports/pins (Ports and Pins)], then select [Encoder/MPG"s] page, will [MPG #1]'s [Enable] check. Figure:



Press the [OK] key to save the settings. Press the [Tab] key on the keyboard to call up Mach3. Hand wheel control interface. As shown


MPG 模式
模式
计算
速度
步/速度
+5
%
单步
多步
刷新
MPG 进给速率
100.00
穿梭模式
步
点动循环模式
1.0000
点动模式
连续步
MPG
MPG 轴
Alt A
Alt B
第三轴
Alt C
慢点动速率
100.0
%
按钮点动
4+
Y+
Z+
X-
X+
4-
Y-
Z-

Click the [Jog Mode] button to switch the jog mode to [MPG] (Handwheel)】 Way. Click [Alt A] to switch to the X axis. As shown in FIG. Try gently rotate the handwheel encoder to see if you can control the X-axis movement?

Handwheel interface as an extended signal input

If you do not need to connect the handwheel, you can use the handwheel interface as a signal input. This RNR all-round USB motion control card V2.0

In this case, the signal input has 8 more channels, plus the previous 4 signal inputs IN1..IN4,

It has a total of 12 signal inputs. At this time, the pin of the handwheel interface corresponds to the signal input.

The terminals are as follows:

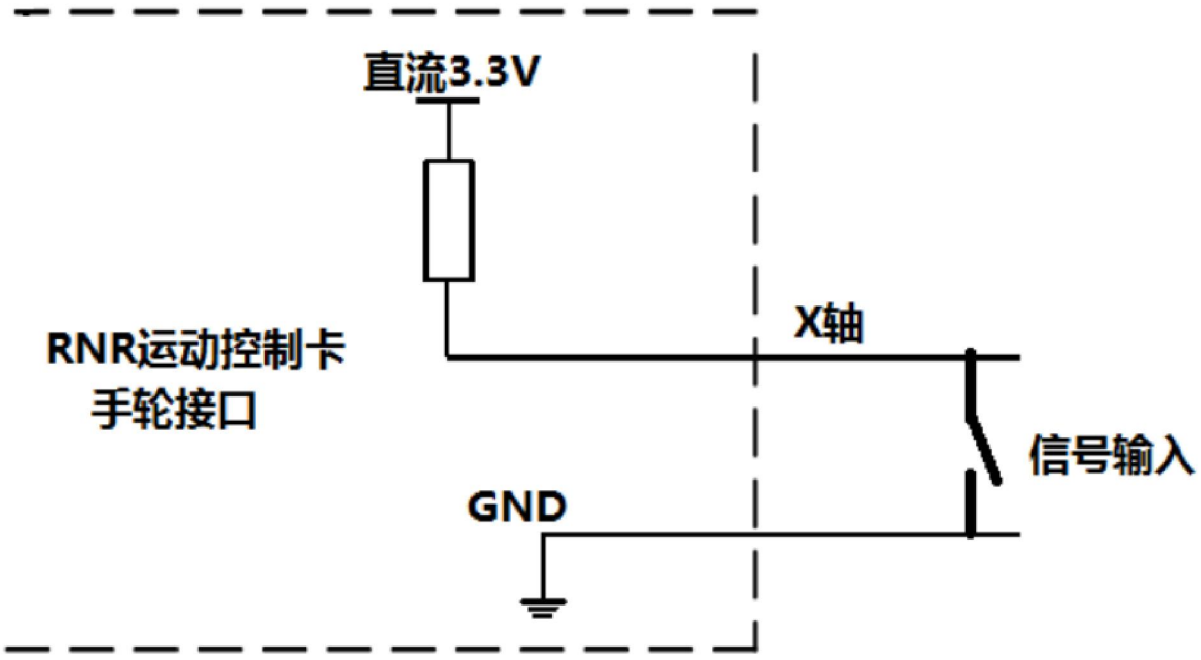
- X axis: IN5
- Y axis: IN6
- Z axis: IN7
- A axis: IN8
- X10: IN9
- X100: IN10
- A: IN11
- B: IN12

Note: The input terminal corresponding to the handwheel interface IN5..IN12 does not support homing or limit Bit, tool setting and other functions. Can only be used as a general digital input (usually used as a connection)

control panel).

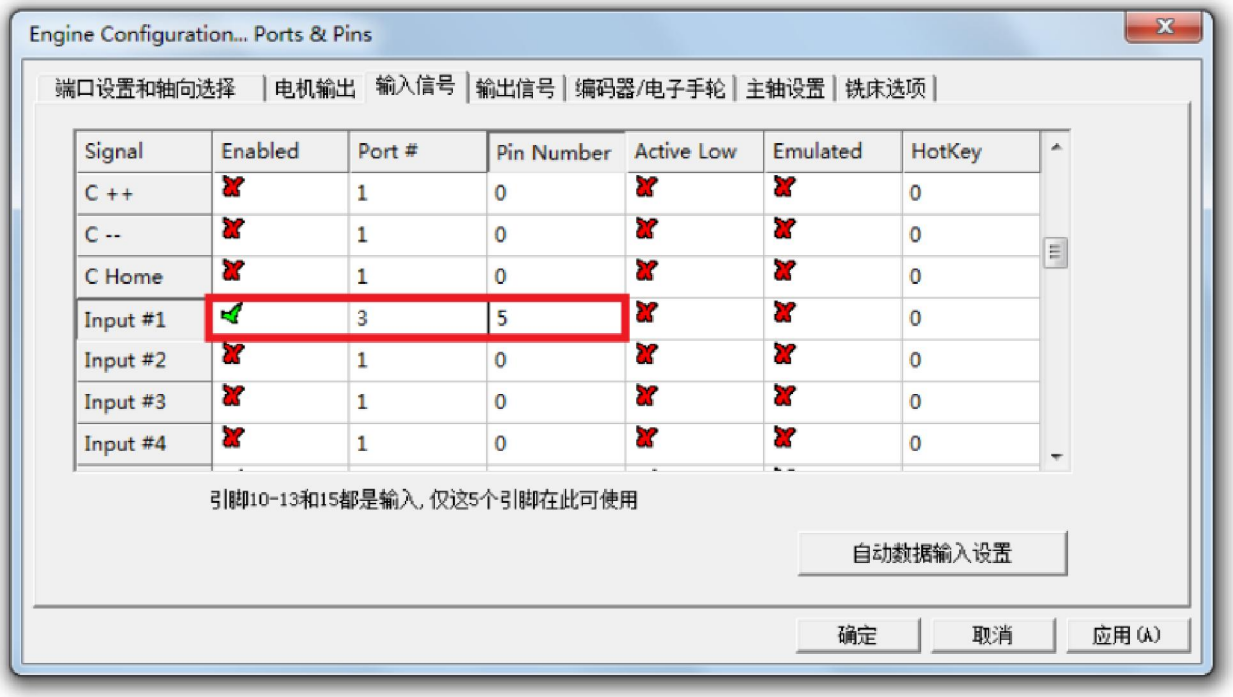
The wiring of the signal input is taken as an example of the X axis. For example, we need to access an input on the X axis.

Into the signal. The internal schematic diagram of the handwheel interface is as follows:



When the signal input switch is closed and shorted to ground, the logic signal "1" is input to the X axis.

We select the Mach3 menu [Config] and select [Port/Pin (Ports) And Pins)], then select the [Input Signals] page, as shown below:



Drag the scroll bar to find the line whose [Signal] is [Input #1]. Will [Enable] Check to change [Port#] to "3" and [Pin Number] to "5".

Mach3's input signal [Input #1] corresponds to the input of the handwheel X-axis. Select to check RNR versatile USB motion control card V2.0

See Mach3's Diagnostics page. When closing the switch connected to the X axis,

You will see the [Input 1] display turns green: