

### Mach3 Software Installation

When you purchase our product, we will supply a CD-ROM, which contains the MACH3 installation, registration, and USB plug-ins. See as Figure 1-1

How to connect to driver.pdf	2017/3/12 17:56	WPS PDF 文档	111 KB
Mach1Lic.dat	2008/8/25 12:13	DAT 文件	1 KB
Mach3_CVSettings_v2.pdf	2016/11/23 15:39	WPS PDF 文档	38 KB
Mach3_Threading.pdf	2016/11/23 15:41	WPS PDF 文档	3,543 KB
Mach3_V3.x_Macro_Prog_Ref.pdf	2016/11/23 15:41	WPS PDF 文档	331 KB
Mach3Mill_1.84.pdf	2016/11/23 15:40	WPS PDF 文档	5,705 KB
Mach3Mill_Install_Config.pdf	2016/11/23 15:40	WPS PDF 文档	4,201 KB
Mach3Turn_1.84.pdf	2016/11/23 15:38	WPS PDF 文档	5,757 KB
Mach3Version3.043.066主程序.exe	2014/9/8 1:17	应用程序	26,341 KB
RnRMotion.dll	2015/9/1 10:44	应用程序扩展	267 KB

Figure 1-1

First run the installation Mach3Version3.043.066 .Into the first page. See as Figure 1-2.



Figure1-2. MACH3 installation process 1

Click Next and then enter the page shown in Figure 1-3

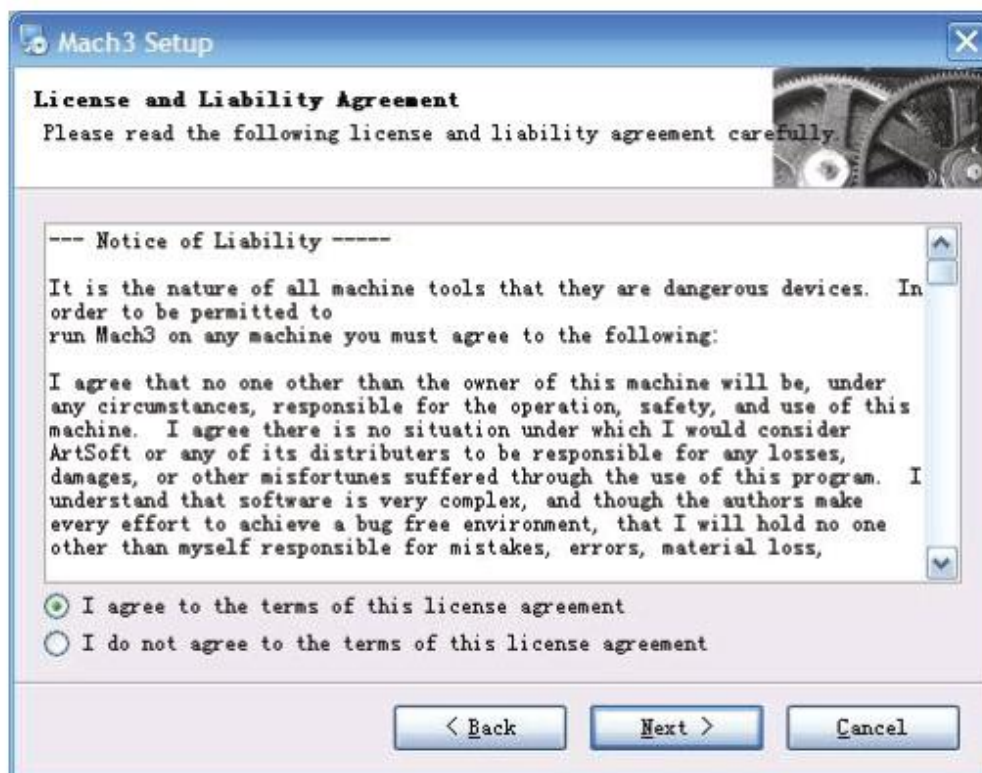


Figure1-3. installation process 2

Select I agree and click Next, See as Figure 1-4.



Figure1-4. MACH3 installation process 3

Select the installation path, click Next (it can be installed on any disk, and recommended to install the C drive or the D drive) See as Figure 1-5

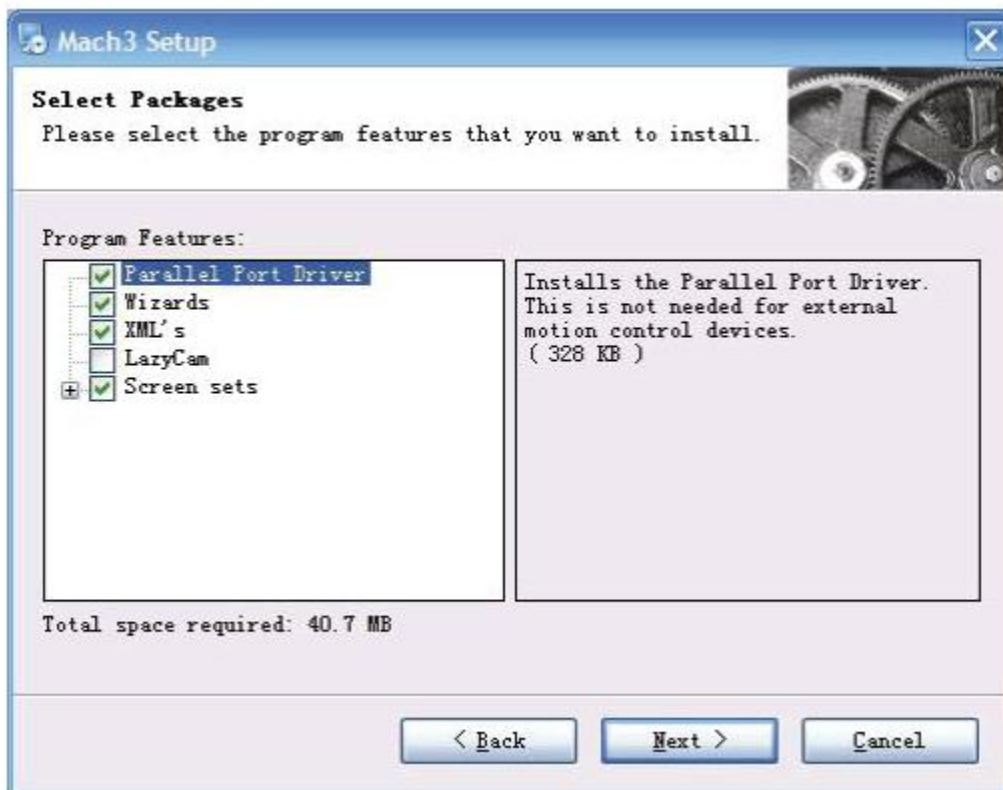
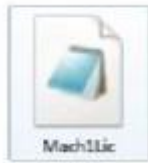


Figure3-5. MACH3 installation process 3

Click Next until completion. Then restart the computer.

### 1.2. MACH3Registration



Copy the file Mach1Lic.dat in The CD-ROM to mach3 installation path (eg C:/MACH3).

### 1.3. USB Mach3 Plug-in installation

Copy the file RnRMotion.dll  to X:\Mach3\Plugins, X is the disk where the soft is installed.

Using of software

### 2.1. Open software



Double-click the mach3mill

Enter mach3 software. Pop-up the plug-in dialog box. See as Figure 2-1.

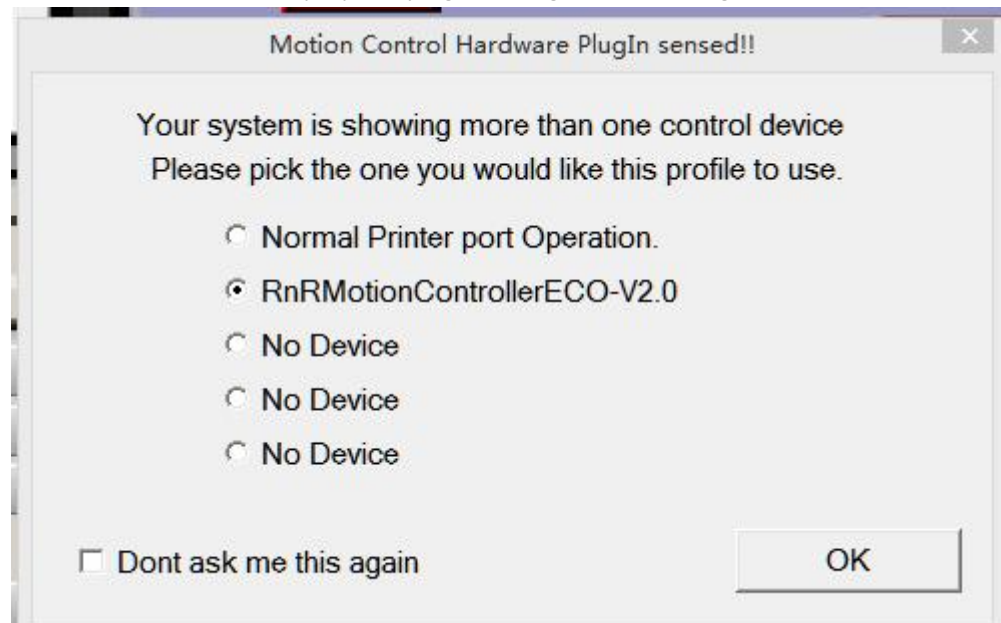


Figure 2-1

Figure 2-1. Plugin selection dialog

Choose our plugin RnRMotion-PlugIn---Ver-2.0a。 Then press OK. If you do not want

to the dialog box appear again next time, you can select Don' t ask me this again.If connect

successfully, Status bar will show “RnRMotion device is connected to your computer” .

## 2.2. Software Common settings

### 4.2.1 Check RnRMotion plugin

Click config plugins to input PluginConfig, you can see RnRMotion. See as Figure2-4.



Figure 2-4. RnRMotionPlguin

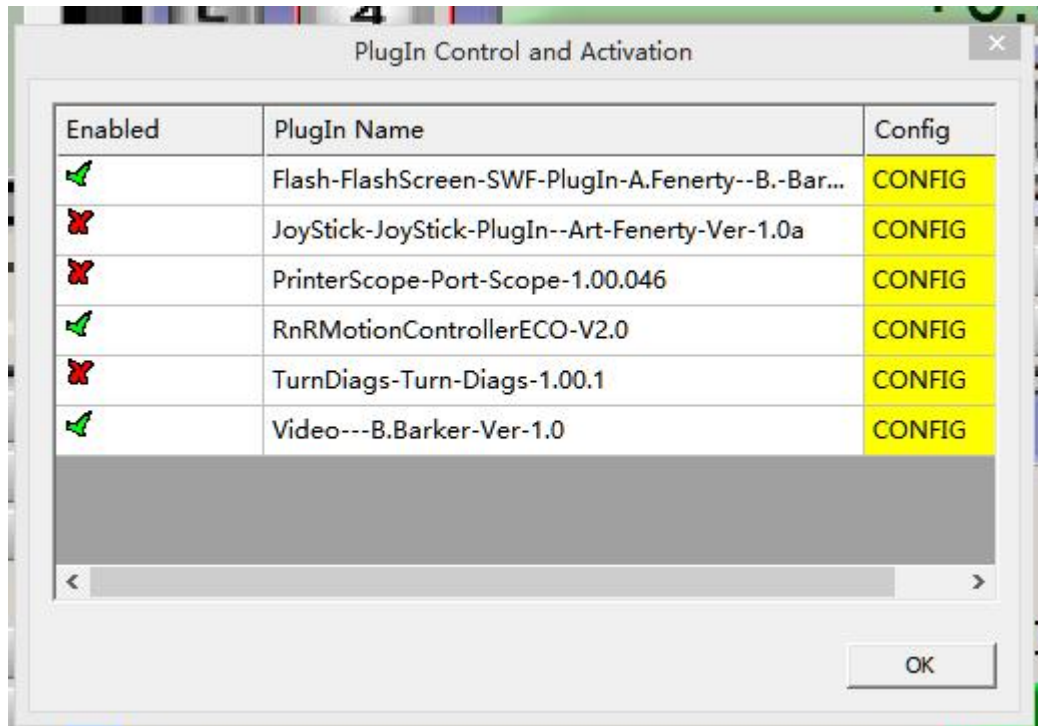


Figure 2-4. RnRMotion Plguin

## 2.2.1 Motor operating parameters setting

### 4.2.2 Motor operating parameters setting



Figure 4-5. Motor operating parameter setting menu entry

See as Figure 4-5. From submenu “motor tuning” of the menu “config” into the motor parameter settings dialog. See as Figure 4-6

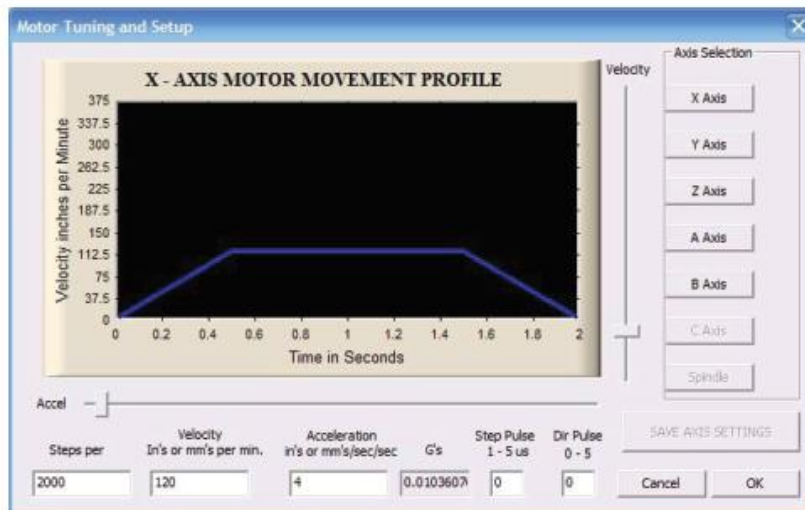


Figure 4-6. Motor operating parameter settings dialog

The parameters are defined as follows:

**Steps per:** Pulse equivalent, it is number of pulses required with axial movement 1mm, This can be calculated by lead screw pitch and motor drive segment. Such as pitch 2.5mm, 2-phase motor 8 segments, Calculation method is  $8 \times 200 / 2.5 = 640$ .

**Velocity:** The speed is the axial velocity, Units is mm/s, Recommended settings 1500.

**Acceleration:** Units is mm/s<sup>2</sup>, Recommended settings 200.

**Step Pulse:** Step Pulse Cannot be set, it's 2.5us in default.

**Dir Pulse:** Dir Pulse Cannot be set, it's 2.5us in default.

**Attention:** The parameters for each axis is not necessarily the same. To select the axis, and then set parameters. You should click "SAVE AXIS SETTINGS" After setting.

#### 4.2.3 Port Settings



Figure 4-7. Port setting intry

See as Figure 4-7, Click the sub-menu “ports and pins” of menu “Config” into Port Settings

dialog box

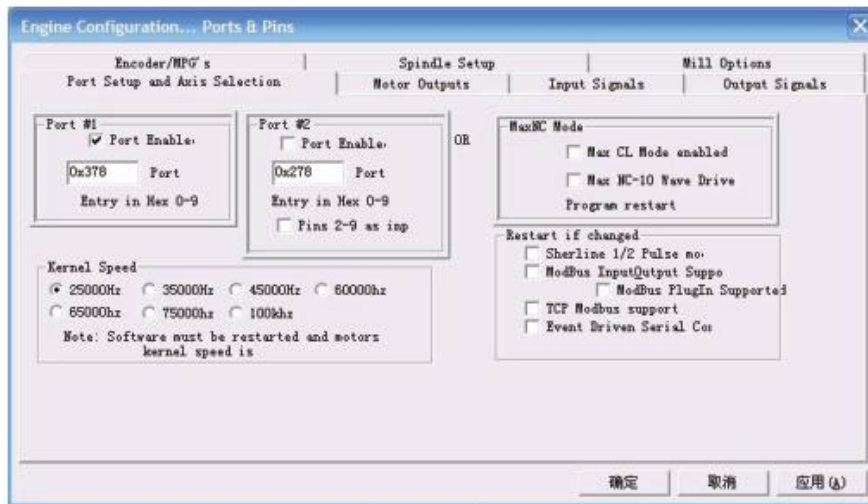


Figure 4-8. Pin&Port Dialog

The sub-pages you need to set include “Motor Outputs”, “Input Signals”, “Output Signals” and “Spindle Setup”. First Click to enter “Motor Outputs”. This page is to select the stepper motor control pin. Because our usbmach3 interface board stepper motor signals are fixed, So here only need to Select, no need to select the specific pin. See as Figure4-9



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 LowActive	Step Low Ac...	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		0	0			0	0
C Axis		0	0			0	0
Spindle		0	0			0	0

Figure 4-9. Stepper motor port settings dialog