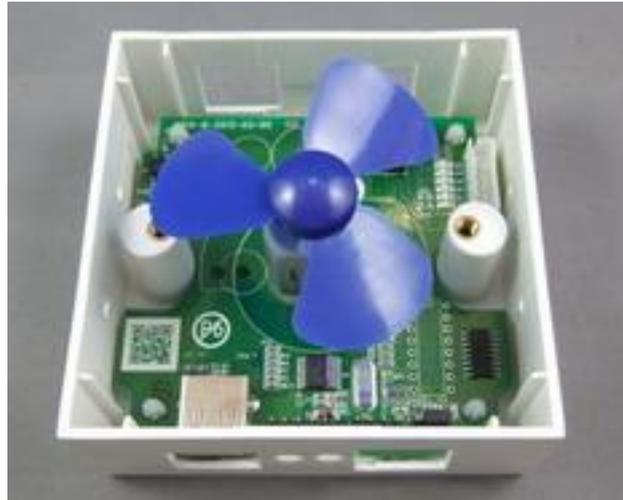


USB PWM Motor 8810-D

Manual



Date : July , 2013

Version :1.0

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Introduction

No need any USB protocol knowledge to control PWM DC Motor through PC easily

If you want to use PC to control PWM DC Motor , with USB PWM Motor 8810-D , you can do it simply plug and play. With no external case , just plug the USB port and use our software to control the motor turning direction and the speed . There is Time Scheduler function , you can pre-set the time to auto control the motor .

Fit for Home / Office / Factory Automation application and school training purpose

Features

- Control through USB by PC software
- No need extra power source , use USB as power source and communication .
- Control one 5V PWM DC Motor – direction and speed
- Scheduler - timer control
- DK (USB CDC mode) provided – command under hyper terminal/ putty directly .
as 2nd developing

Note : This product supports 5V /12V Step Motor and PWM DC Motor .
For Step Motor but need to adjust 2 sets black jump .
Please contact your reseller to buy the step motor if need .
This board controls one kind of motor only at a time.

Minimum System Inquire

- PC / Notebook with Windows OS like WIN 7 , VISTA or XP .
- USB 2.0 / 1.1.
- **Microsoft .NET Framework Version 3.5 or above**

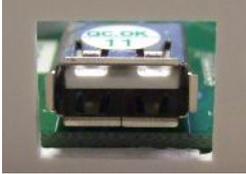
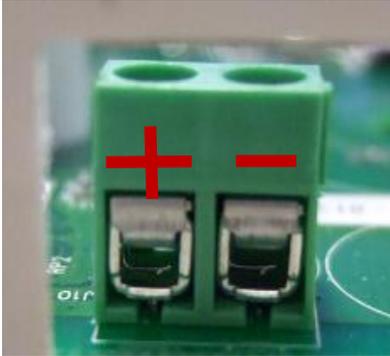
SPEC.

ITEM	SPECIFICATION
Rated Voltage	DC 5V
Motor Rated Load	0.25A/Phase
No. of Phases	Four (4)
Step Angle	7.5°
Excitation Method	2-2 Unipolar
Insulation Classification	Class A
Operating Temperature	0~+50°C
Operating Humidity	5~90%RH
Storage Temperature	-20°C~+70°C
Storage Humidity	5~95%RH

Package

8810-D x 1	
USB Cable (Male -Male)	For connect with PC
CD	With Driver , Manual and Software

Interface

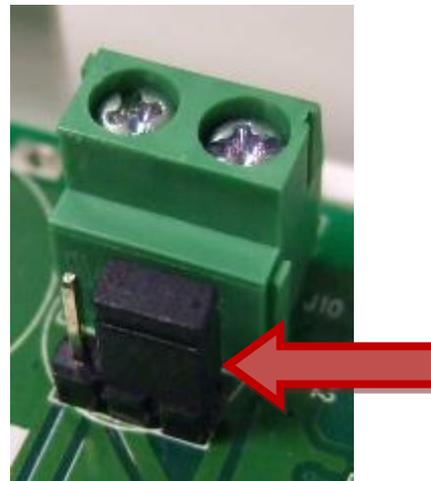
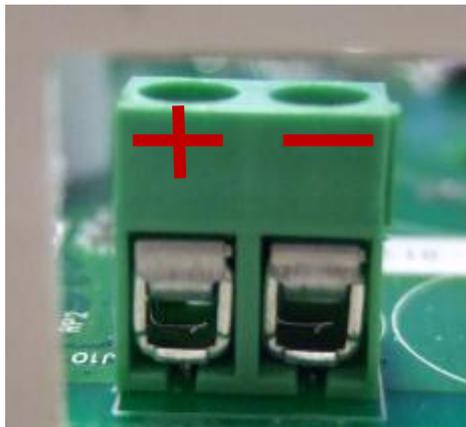
USB port	Connect with PC . 
5V PWM DC Motor & Fan (Demo)	Had on board
Other Motor Application	
Motor Socket	Connect to Step Motor 
12V Power In (Left+ / Right -)	For other 12V Step Motor . Need to adjust the JUMP position Please refer the Hardware Installation . 

Installation

Hardware

Connect the 8810-D board to PC by USB cable. Windows will show that there is Un-know hardware detected . Then please install the driver and software from CD.

Note : If use the option 12V Step Motor, user need to have the 12V power source first . Please plug the power source to the green socket for 12V power in (Left plus + & Right negative -) , and plug the 12V step motor to white socket and adjust the jumper as following :



Driver & Software

Installation Procedure

1. Please make sure that your PC had install .NET . or go to the link below here to download before install USB PWM Motor 8810-D . :
<http://www.microsoft.com/en-us/download/details.aspx?id=21>
2. After install .NET, please put the CD in your CD ROM and it will execute AUTORUN. file or you can open by Windows . Please use web browser " IE

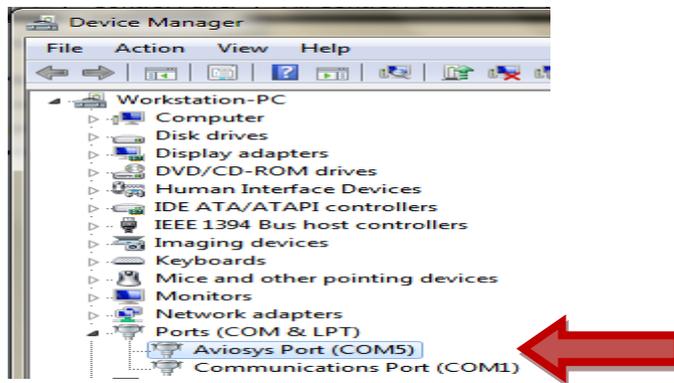
“ to open the CD.

3. Then go to Manual → USB Series → USB PWM Motor 8810-D to Download the driver “ USB Net Power Driver” and the software “USB PWM Motor 8810.exe “ into your hard disk .

- Software : USB PWM Motor 8810.exe
- 8810 Driver: USB Net Power Driver .

4. Connect the 8810 power and the USB port of 8810 power to PC . PC will pop up “ Detect New Hardware” , then select the 8810 driver and install .
5. After install the driver, you can get “Aviosys Port (COM X) in Ports (COM& LPT) device manager as following .

Control Panel → System → Device manager → Ports(COM& LPT) → Aviosys Port (COM X)



- 4.) After confirm the 8810-D had shown in Device Manager , please execute the software “USB PWM Motor 8810exe “ and you will see as following :



Software Interface



Clockwise

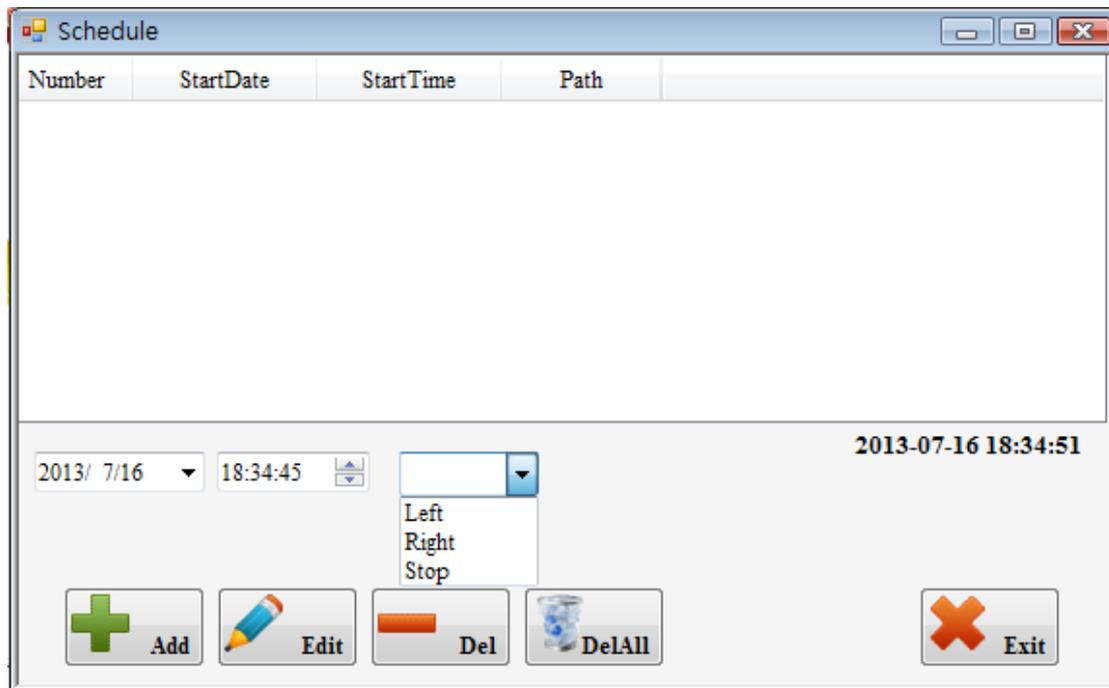
Counter Clockwise

Control

Here you can setup the speed up and down :

- Speed Up : Increase the speed
- Speedy Down: Lower the speed
- Start : Start turning
- Stop : Stop turning

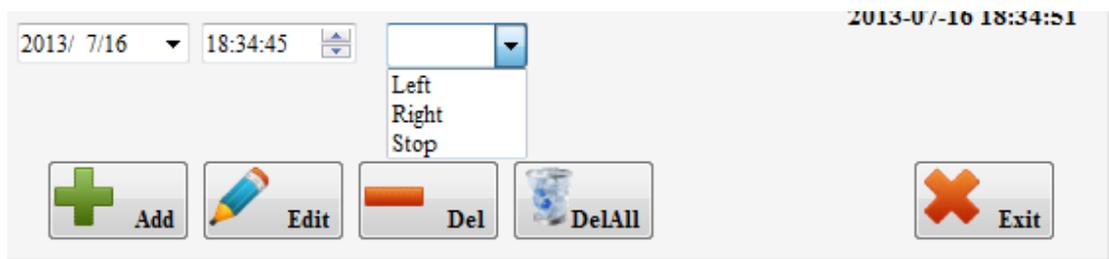
Schedule



Can setup the schedule to control motor. It is a helpful tool for auto control

Notice : Please turn off the Sleep function of PC and the 8810-D software need to be keep executing as use scheduler function.

Here user can select date , time and direction :



- Date : Select the date in calendar .
- Time : Select the time .
- Direction : Left(Counter clockwise) , Right (Clockwise) , Stop .

Add – Add new schedule

Edit – edit scheduler

- 1.) Press the item want to revise .
- 2.) Revised the date , time , direction , type and times.
- 3.) Please EDIT button s confirm .

Del – delete item

- 1.) Select the item want to delete
- 2.) Press DEL button .

Del All - delete all item in list

- 1.) Delete “ Del All” button to clear all list
- 2.) There is 2nd confirm before delete all action

SDK - USB CDC emulation mode

For user to arrange own development :

- Developing environment: :
 - VB.NET 2008
 - Microsoft NET. Framework Version 3.5
 - Microsoft office access 2007

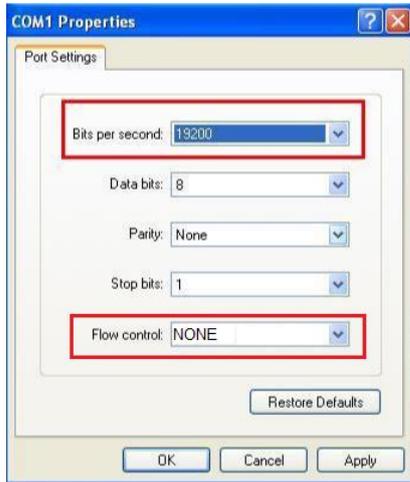
USB CDC emulation mode .

Please refer the setting as following :

1. First , make sure that the 8810-D is connect with your PC. Please go to
Control Panel → System → Device manager → Ports(COM& LPT) → Aviosys Port (COM X)
2. Then open Hyper terminal to connect with 8810-D.
Start → All programs→ Accessories → Communication → Hyper terminal

* There is no Hyper terminal program in WIN 7. Please use other serial software like Putty .
Select the COM port 8810-D use .

3. Setup “ Bits per second” as 19200 and “ Flow control” as NONE. Then press OK to log in .



After go into the command windows, please press “ enter “ key to get all the command .



[Command]

1. PWM DC Motor

- r --> Turn clockwise (right)
- l --> Turn counter clockwise (left)
- + --> speedy up
- --> speedy down

2.stop --> stop turning

3.? Or key "Enter" --> show command list

4 . Fast command —

~ - show 8810(PWM motor) °

! turn clockwise

@ turn counter clockwise

#,+ Speed up

\$,- Speedy down

(stop turning

**Note : This product supports 5V /12V Step Motor and PWM DC Motor .
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Thank you for supporting Aviosys .

If any question, please e-mail to our Service Department : service@aviosys.com