CH340 UNO R3



Introduction

This control board is optimized on the Arduino Uno R3 board. It mainly has two advantages, one is completely solving the incompatible and instable limitation of traditional UNO board under win7 and win8 system; another is replacing 16U2 chip with CH340G,with lower cost,offering you more benefits.

Technical Parameters

Microcontroller	ATmega328P-PU
Operating Voltage	5V
Input Voltage	5-9V
Digital I/O Pins	14 (of which 6 provide PWM output)

PWM Digital I/O Pins	6
Analog Input Pins	6
DC Current per I/O Pin	20 mA
DC Current for 3.3V Pin	50 mA
Flash Memory	32 KB (ATmega328P) of which 0.5 KB used by
	bootloader
SRAM	2 KB (ATmega328P)
EEPROM	1 KB (ATmega328P)
Clock Speed	16 MHz

Using Method

(1) Install Diver Software

For different operating system, there may be slight difference in installation method. Below is an example in WIN 7.

When you connect Arduino Uno to your computer the first time, right click "Computer"

-->"Properties"--> "Device manager", you can see "Unknown devices".

🚔 Device Manager	- • ×
File Action View Help	
Batteries Batteries Batteries Batteries Buteooth Radios Computer Disk drives Display adapters DVD/CD-ROM drives DVD/CD-ROM drives DVD/CD-ROM drives DE ATA/ATAPI controllers IDE ATA/ATAPI controllers Maging devices Keyboards Memory technology driver Mice and other pointing devices Monitors Network adapters Other devices Monitors Network adapters System devices System devices System devices Universal Serial Bus controllers	

Click "Unknown devices", select "Update Driver software".

In this page, click "Browse my computer for driver software".

Device Manager	- 0	×
File Action View Help		
A B B Update Driver Software - Unknown Device		
How do you want to search for driver software?		
 Search automatically for updated driver software Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings. Windows Will search you've disabled this feature in your device installation 		
Browse my computer for driver software Locate and install driver software manually.		
D		
Cancel		

Find the "drivers" file.



Click "Next", Installation completed; click "Close".

File Action View	w Help	
♦ ♦ 🖬 🖼		
A A keyes Ba Ba Ba Ba	Update Driver Software - USB-SERIAL CH340 (COM21)	
Di I	Windows has successfully updated your driver software	
>-023 Hi >-023 D >-733 Im	Windows has finished installing the driver software for this device:	
⊳ -	USB-SERIAL CH340	
>- <u>1</u> 2 N ▲-]]5 O		
> -∰ Sc > -Q+ St > -Q+ St		
⊳-₩ Ur		
	Close	

After driver is installed, go to "Device manager" again. right click "Computer" —> "Properties"—> "Device manager", you can see UNO device as below figure shows, also the correct Com port.



(2) Install Development Environment Software IDE

Double click arduino-1.5.6-r2-windows to start.

Select "I Agree" to accept license agreement.

Arduino Setup: License Agreement	
Please review the license agreement before insi accept all terms of the agreement, click I Agree	taling Arduino. If you
SNU LESSER GENERAL PUBLIC LICENSE	*
Version 3, 29 June 2007	
Copyright (C) 2007 Free Software Foundation, Inc.	ttp://fsf.org/>
Everyone is permitted to copy and distribute verbatim document, but changing it is not allowed.	copies of this license
This version of the GNU Lesser General Public License in and conditions of version 3 of the GNU General Public L by the additional permissions listed below.	corporates the terms icense, supplemented
Cancel Nullsoft Install System v2.46	I Agree

Select components to install and click "Next".

you don't want to install	. Click Next to continue.
elect components to install:	 ☐ Install Archino software ☑ Install US8 driver ☑ Create Start Menu shortcut ☑ Create Desktop shortcut ☑ Associate .ino files
pace required: 375.7MB	

Click "Browse" and select another folder. Click "Install" to start the installation.

Setup will install Arduino in the following fok folder, dick Browse and select another fold installation.	der. To install i er. Click Instal	n a different I to start the
Destination Folder		
Sti Program Files (VSS) Arduno		Browse
Space required: 375.7MB Space available: 17.5GB		1
Cancel Nullsoft Install System v2.46	< Back	Install

Finally, wait for a few minutes to finish.

Arduino Setup: Installing	
Extract: sam3x8_sram.ld	
Show details	
Carrol 1 Halestin tootal Distance of all	1840 044
Martice and a system v2/40	

(3) Uploading example called "Hello World!"

Following is a sketch uploading example called "Hello World!".

First, open Arduino IDE. In this example sketch, we program Arduino to display "Hello World!"

in serial monitor when it receives a specific character string "R"; and the on-board D13 LED will blink once each time it receives "R".

First, set up board; In "Tools", select "Arduino Uno".



Next, set up COM port; In "Tools", select "COM21".

🥺 sketch_aug09a	Arduino 1.5.6-r2	-		
File Edit Sketch Tools Help				
sketch_aug09a	Auto Format Archive Sketch Fix Encoding & Reload Serial Monitor	Ctrl+T Ctrl+Shift+M		
// put your set	Board	•		
}	Port		✓ COM21	
void loop () { // put your mai	Programmer Burn Bootloader	•	1	
}			-	
WARNING: SpuriousPreviews folder in 'Adafruit GFN Library' library WARNING: Spurious .github folder in 'Adafruit MLN90614 Library' library				
7		Ard	luino Uno on COM21	

After selection, you can see indicated area is the same with settings in "Device manager".



Copy the example sketch and paste it to the IDE; click "Verify "to check compiling mistakes;

click "Upload **O**" to upload the program to the board.



Done uploading, open "serial monitor ?; enter "R"; click "Send", the serial monitor will display "Hello World!" and the D13 LED will blink once. Shown below:

∞ COM21		
R		Send
Hello World!		
Hello World!		
Hello World!		
V Autoscroll	No line ending 💌	9600 baud 👻