SW5100 Test with Arduino

Test Information

The SW5100 is an Ethernet module with the core chip W5100 from WIZnet company. It supports TCP, UDP, ICMP, IGMP, IPv4, ARP, PPPoE, Ethernet.



In order to use the module correctly, you should understand the pins of it first.



To use it on the Arduino, you just connect the SPI_EN pin to 5V or 3.3V with a pull-up resistor, connect SCLK, SCS, MISO, MOSI to the SPI port of Arduino, connect the INT pin to the digital 2 of Arduino, connect the RESET pin to the RESET of Arduino, and

don't forget to connect the VCC (3.3V) and GND. But if you have a <u>Communication shield</u>, the connection could be much easier. All you need to do is just plug the pins into the two rows of slots marked W5100 on the communication shield, and the connection is done.



Connect this module with PC via net cables.

Open the Arduino IDE, find the example **WebServer***:*

💿 sketch_jun16a Arduind	0022		
File Edit Sketch Tools H	lelp		
New Open Sketchbook	Ctrl+N Ctrl+O		E> I
Examples	•	1.Basics ►	×
Close Save Save As Upload to I/O Board Page Setup Print Preferences Quit	Ctrl+W Ctrl+S Ctrl+Shift+S Ctrl+U Ctrl+Shift+P Ctrl+P Ctrl+Comma Ctrl+Q	2.Digital 3.Analog 4.Communication 5.Control 6.Sensors 7.Display 8.Strings ArduinoISP ArduinoTestSuite FEPROM	
		Ethernet F	BarometricPressureWebServe
4		Ethernet_ENCJ60 > C Firmata > F ITDB02 > F LiquidCrystal > T Matrix > U SD > U SdFat > V	:hatServer ¹ achubeClient ² achubeClientString ⁷ elnetClient JdpNtpClient JDPSendReceiveString WebClient

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Change the code:

byte mac[] = { 0xDE, 0xAD, 0xBE, 0xEF, 0xFE, 0xED }; // set the MAC address

byte ip[] = { 192,168,1,177 };

//Set IP

Server server(80);

//Set port, usually 80

Upload the program to Arduino.

Please do not forget to configure the IP on your local PC:

On Windows OS, open Control Panel \rightarrow Network and Internet \rightarrow Network Connection, double click Local Area Connection (the one your ENCJ60 module connected to)

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Local Area Connection Properties				
Networking Sharing				
Connect using:				
Realtek PCIe GBE Family Controller				
Configure				
This connection uses the following items:				
Client for Microsoft Networks				
VinpKriter Diver				
Internet Protocol Version 6 (TCP/IPv6)				
Internet Protocol Version 6 (TCP/IPv6)				
Link-Layer Topology Discovery Responder				
Install Uninstall Properties				
Description				
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.				
OK Cancel]			

Click Internet Protocol Version 4 (TCP/IPv4) and then Proerties

internet Protocol Version 4 (TCP/IPv4)	Properties ? X				
General					
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
Obtain an IP address automatically					
Ouse the following IP address:					
IP address:	192.168.1.2				
Subnet mask:	255 . 255 . 255 . 0				
Default gateway:	192.168.1.1				
Obtain DNS server address autom	natically				
O Use the following DNS server add	resses:				
Preferred DNS server:					
Alternate DNS server:	• • •				
Validate settings upon exit					
	OK Cancel				

Click OK to apply.

Open one brower and input: http://192.168.1.177:80/

🕘 Iozilla Firefox 📃 🗖 🗙				
<u>F</u> ile <u>E</u> dit <u>V</u> iew Hi	i <u>s</u> tory <u>B</u> ookmarks	<u>T</u> ools <u>H</u> elp		
CD. C >	🕻 🏠 🗋 http:	//192.168.1.177/	🟠 🔹 🚼 🛛 Google 🔎	
http://192.168.	1.177/	+	-	
analog input 0 is 616 analog input 1 is 682 analog input 2 is 628 analog input 3 is 523 analog input 4 is 463 analog input 5 is 403				
Done				

Disclaimer and Revisions

The information in this document may change without notice.

Revision History

Rev.	Date	Author	Description
А	June. 12th, 2011	Wilson Shen	Initial version