

Using WIZnet Ethernet Library for ioShield-A

Connecting to the Internet using the W5500 powered Ethernet Shield

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Arduino Ethernet Library

from : <http://arduino.cc/en/Reference/Ethernet>

Arduino Ethernet Shield allows an Arduino board to connect to the internet. It can serve as either a server accepting incoming connections or a client making outgoing ones. The library supports up to four concurrent connection (incoming or outgoing or a combination).

For more details, please visit : [Arduino Ethernet Library Page](#).

Before COMPILING THE SOFTWARE, **Download and install Arduino 1.0.5** from the Arduino software page.

- **Note: Certain functions may not work in earlier versions.** Before using this library, please update [the latest version of Arduino Software](#).
- See the [Getting Started with Arduino](#).
- See the [foundations page from Arduino](#) for in-depth description of core concepts of the Arduino hardware and software
- See the [hacking page from Arduino](#) for information on extending and modifying the Arduino hardware and software
- See the [Links page from Arduino](#), [Playground page from Arduino](#) for other documentation.

Update Ethernet Library

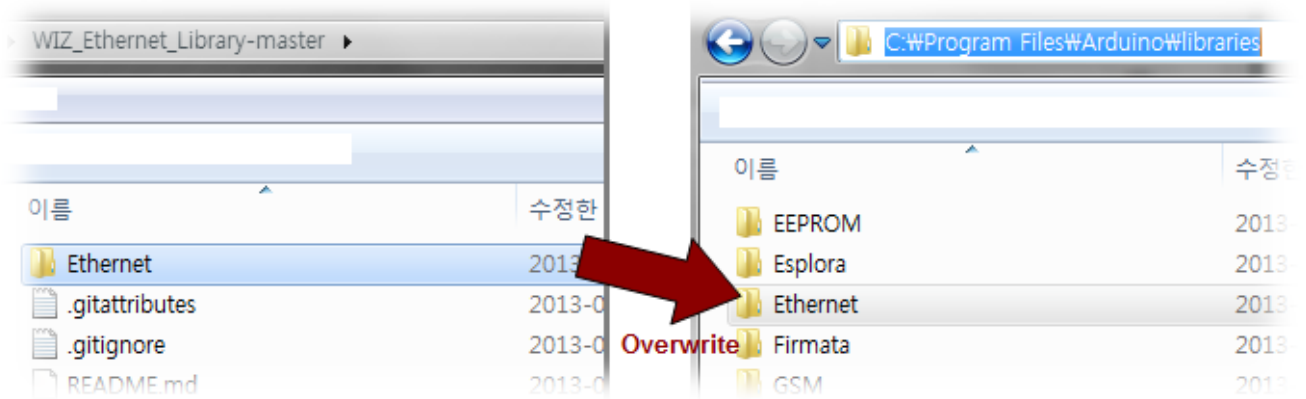
To use ioShield-A(WIZ550io), you need to update new WIZnet Ethernet Library. Because ioShield-A use W5500 new chipset instead of W5100 which is used original Ethernet Shield.

The first step is to download the latest version of the [Wiznet Ethernet Library from GitHub](#).

How to update the Ethernet library.

1. **Open the archive and extract the file “WIZ_Ether_Library.zip”** to a convenient spot (I use the Desktop).

2. **Put(Overwrite) the “Ethernet” folder in this library to the libraries folder in the Arduino Installation Folder** (for example, normally you can find Arduino libraries folder as “C:\Program Files\Arduino\libraries\.”), -or select “Sketch → Import Library... → Add Library...” in Arduino IDE, and select the folder location. and then, you can see the new directory in your “My Document/Arduino/libraries/”.



Change code depending WIZnet chip, W5100, W5200 or W5500

1. Select the define variable in “Ethernet/utility/W5100.h”. When you use WIZ550io, ioShield-Series, you uncommment “#define W5500_ETHERNET_SHIELD”.

w5100.h

```

/*
 * Copyright (c) 2013 by WIZnet <support@wiznet.co.kr>
 *
 * This file is free software; you can redistribute it and/or modify
 * it under the terms of either the GNU General Public License version
 2
 * or the GNU Lesser General Public License version 2.1, both as
 * published by the Free Software Foundation.
 */

#ifndef W5100_H_INCLUDED
#define W5100_H_INCLUDED

#include <avr/pgmspace.h>
#include <SPI.h>

typedef uint8_t SOCKET;

// #define W5100_ETHERNET_SHIELD // original ethernet shield from
// Arduino
// #define W5200_ETHERNET_SHIELD // Ethernet Shield version 2 from Seed.
#define W5500_ETHERNET_SHIELD // ioShield Series

```

Examples

Now you are ready to go to “File → Example → Ethernet”, and select examples what you want. There are many simple examples in Ethernet Library Folder as like



branch: master WIZnet / WIZ_Ethernet_Library / Ethernet / examples /

This branch is 0 commits ahead and 0 commits behind master

new

Soohwan Kim authored 4 days ago

..

BarometricPressureWebServer	new
ChatServer	new
DhcpAddressPrinter	new
DhcpChatServer	new
TelnetClient	new
Twitter_Serial_GW	new
Twitter_Serial_Protocol	new

- [Test Twitter](#): A Twitter Simple Posting or refer <http://playground.arduino.cc/Code/TwitterLibrary>
- [Test HTTP Client\(WebClient\)](#): A Simple HTTP Client test

Basically, you can refer the usage for each examples in Arduino site.

- <http://arduino.cc/en/Tutorial/ChatServer>: set up a simple chat server.
- <http://arduino.cc/en/Tutorial/WebClient>: make a HTTP request.
- <http://arduino.cc/en/Tutorial/WebClientRepeating>: Make repeated HTTP requests.
- <http://arduino.cc/en/Tutorial/WebServer>: host a simple HTML page that displays analog sensor values.
- [XivelyClient](#): connect to pachube.com **xively.com**, a free datalogging site. **not a big change except service name.**
- [XivelyClientString](#): send strings to pachube.com **xively.com**. **not a big change except service name.**
- <http://arduino.cc/en/Tutorial/BarometricPressureWebServer>: outputs the values from a barometric pressure sensor as a web page.
- <http://arduino.cc/en/Tutorial/UDPSendReceiveString>: Send and receive text strings via UDP.
- <http://arduino.cc/en/Tutorial/UdpNtpClient>: Query a Network Time Protocol (NTP) server using UDP.
- <http://arduino.cc/en/Tutorial/DnsWebClient>: DNS and DHCP-based Web client.

- <http://arduino.cc/en/Tutorial/DhcpChatServer>: A simple DHCP Chat Server
- <http://arduino.cc/en/Tutorial/DhcpAddressPrinter>: Get an IP address via DHCP and print it out
- <http://arduino.cc/en/Tutorial/TelnetClient>: A simple Telnet client

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