ETHERNET W5100 R3 SHIELD NETWORK BOARD

Module: EB0006 / 180828

Introduction

keyestudio W5100 Ethernet Shield gives you an easy way to get your Arduino Online. It can turn your Arduino into a simple web server or use the Internet to read /write its digital and analog outputs/inputs.
Compatible with the UNO R3 board and Mega 2560 R3.
It is directly supported by Arduino official Ethernet Library. It also supports the read &write of mini SD card (TF card).
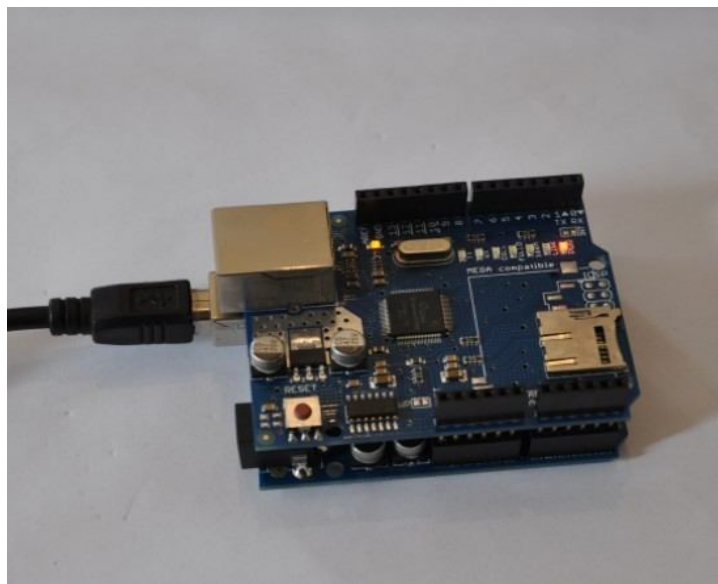The shield adopts stackable design. You can directly plug it to Arduino board or plug other shields onto this Ethernet shield.

Arduino W5100 Test

1.Stack your W5100 shield on you arduino board,make sure all the pins contact OK.


2.Copy the test sketch

arduino w5100 test code:
/**/

```
#include <SPI.h>
/* Web Server
 * A simple web server that shows the value of the analog input pins.
 */
#include <Ethernet.h>
byte mac[] = { 0xDE, 0xAD, 0xBE, 0xEF, 0xFE, 0xED };
byte ip[] = { 192, 168, 0, 15 };
Server server(80);
void setup()
{
  Ethernet.begin(mac, ip);
  server.begin();
}
void loop()
{
  Client client = server.available();
  if (client) {                                    // an http request ends with a blank line
    boolean current_line_is_blank = true;
    while (client.connected()) {
      if (client.available()) {
        char c = client.read();                    // if we've gotten to the end of the line (received a newline
                                                   // character) and the line is blank, the http request has ended,
                                                   // so we can send a reply
        if (c == 'n' && current_line_is_blank) {
          client.println("HTTP/1.1 200 OK");       // send a standard http response header
          client.println("Content-Type: text/html");
          client.println();
          client.print("welcome to tinyos electronics");        // output the value of each analog input pin
          client.println("<br />");
          client.print("//*************************************");
          client.println("<br />");
          client.print("");
          client.println("<br />");
          client.print("//*************************************");
          client.println("<br />");
          for (int i = 0; i < 6; i++) {
            client.print("analog input ");
            client.print(i);
            client.print(" is ");
            client.print(analogRead(i));
            client.println("<br />");
          }
          break;
        }
        if (c == 'n') {
          // we're starting a new line
          current_line_is_blank = true;
        } else if (c != 'r') {
          current_line_is_blank = false;           // we've gotten a character on the current line
        }
      }
    }
    client.stop();
  }
}
```
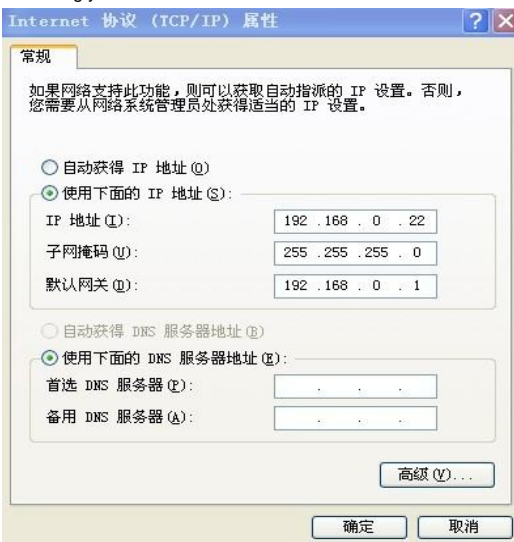/**/

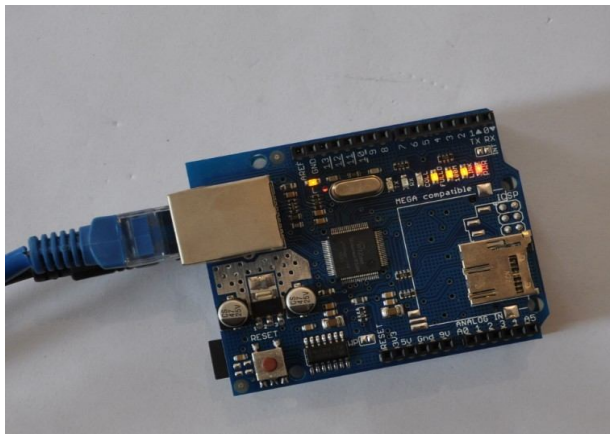3.Connet your W5100 board and PC with cable(you may need a crossover cable if you direct connect PC and W5100)
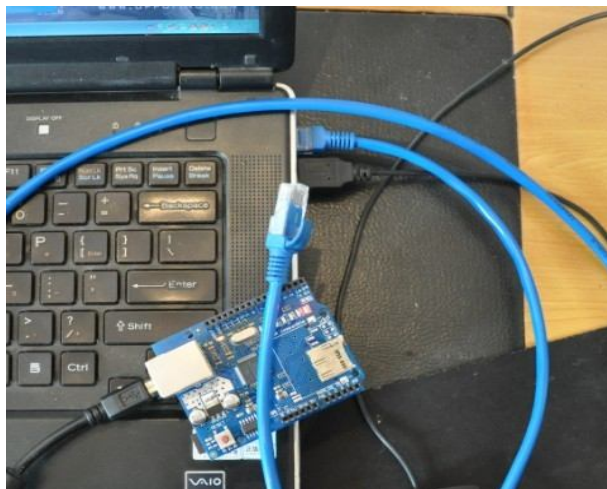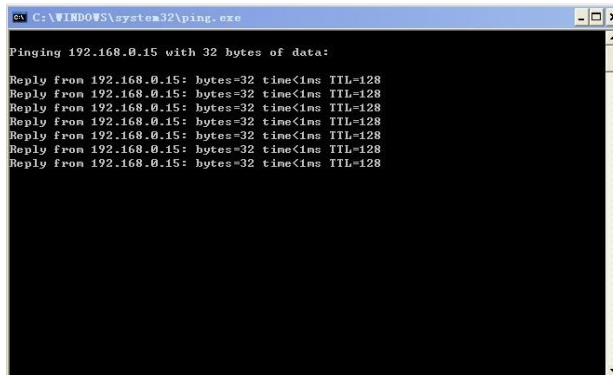
4. Setting your local PC IP

5.You will see PC Local connection show connected and W5100 4 LEDS will turn ON
FULLD,100M,LINK,PWR
If not please try to press RESET button on W5100 Shield.

6.Now you can PING the W5100

7.Visit http://192.168.0.15/ you can see the test web page