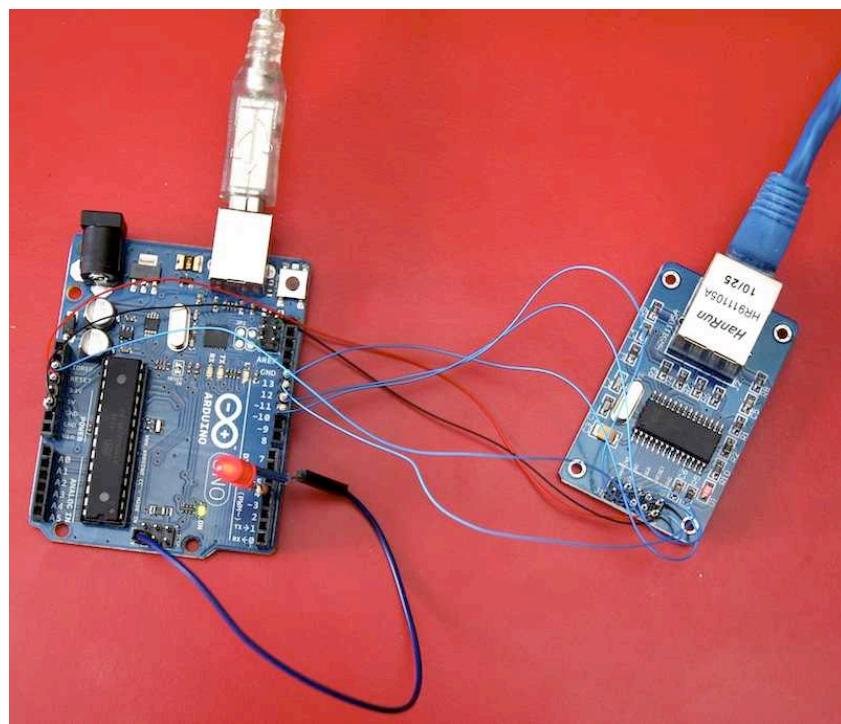


Ethernet Module (ENC28J60) For Arduino / Micro-controller



This ethernet board is a simple way to give your Arduino or other electronics project a network connection.

Works with all Arduino boards, including UNO, MEGA, and Nano.

25MHz crystal onboard

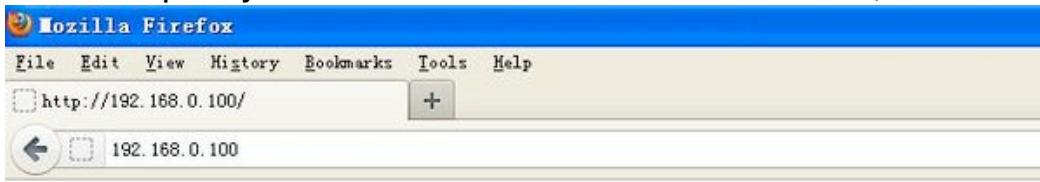
- With this Ethernet Shield, your Arduino board can be used to connect to internet
- Genuine Microchip's ENC28J60 SPI ethernet controller and HR911102A RJ45 socket
- Open-source TCP/IP protocol stack as an Arduino library.
- Web client application to use Arduino as a distributed network sensor

How to Connect with Arduino and Code

Here is the guide illustrates how to connect an Arduino to the ENC28J60 Ethernet Module. The following is a table describing which pins on the Arduino should be connected to the pins on the ENC28J60 Ethernet Module:

| ENC28J60 module | Arduino Uno/Due | Arduino Mega |
|-----------------|-----------------|--------------|
| CS | D10 | D53 |
| SI | D11 | D51 |
| SO | D12 | D50 |
| SCK | D13 | D52 |
| RESET | RESET | RESET |
| INT | D2 | D2 |
| VCC | 3V3 | 3V3 |
| GND | GND | GND |

1. To get it work, [ENC28J60 library](#) need to be used. Due to the function name of ENC28J60 library is same as the original Ethernet library, the original Ethernet library in the library folder must be removed.
2. You need to specify the IP address of the Ethernet shield, which is done inside



The screenshot shows a Mozilla Firefox browser window. The title bar says "Mozilla Firefox". The menu bar includes "File", "Edit", "View", "History", "Bookmarks", "Tools", and "Help". The address bar shows the URL "http://192.168.0.100/" with a "+" button to its right. Below the address bar are standard navigation buttons: back, forward, stop, and refresh. The main content area displays the following text:
analog input 0 is 393
analog input 1 is 320
analog input 2 is 294
analog input 3 is 324
analog input 4 is 364
analog input 5 is 363

Then enter your Ethernet shield IP address into the URL bar. The Web browser will query inquire the Ethernet shield to return the values from analog input on the Arduino board. As there is nothing plugged into the analog input, their value will change constantly. Press F5 to see the new value.

Example code

Open Arduino IDE Files - Examples - ENC28J60 - WebServer

The IP address in the example code need to be changed for the address assigned to ENC28J60 module.

```
#include <Ethernet.h>
byte mac[] = { 0xDE, 0xAD, 0xBE, 0xEF, 0xFE, 0xED };
byte ip[] = { 10, 0, 0, 177 };
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) {
          // send a standard http response header
          client.println("HTTP/1.1 200 OK");
          client.println("Content-Type: text/html");
          client.println();

        // output the value of each analog input pin
```

```
        for (int i = 0; i < 6; i++) {
            client.print("analog input ");
            client.print(i);
            client.print(" is ");
            client.print(analogRead(i));
            client.println("");
        }
        break;
    }
    if (c == '\n') {
        // we're starting a new line
        current_line_is_blank = true;
    } else if (c != '\r') {
        // we've gotten a character on the current line
        current_line_is_blank = false;
    }
}
// give the web browser time to receive the data
delay(1);
client.stop();
}
}
```