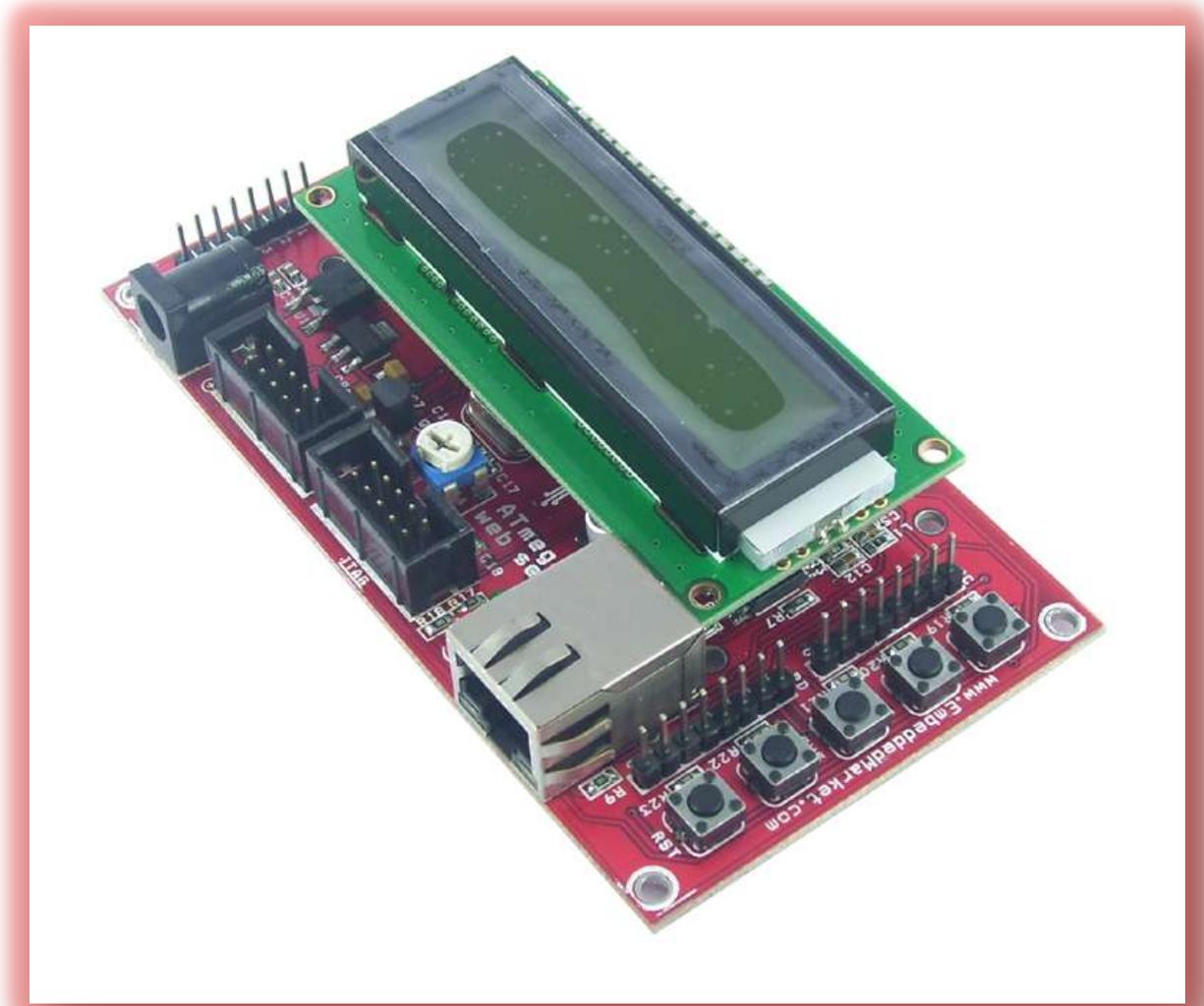


AVR Embedded Web Server



AVR Embedded Webserver
using
ATmega32 & ENC28J60

AVR Embedded Web Server

| Sr. Num. | Topics | Page |
|----------|---------------------------------|------|
| 1 | About Embedded Web Server | 3 |
| 2 | AVR Web Server Hardware Details | 4 |
| 3 | Important information | 8 |

1. About Embedded Web Server

The web servers are computers with some specific software installed. Any Computer can be converted into a web server with softwares like IIS or Apache. The PCs are bulky and designed for multipurpose usage.

What if we need dedicated task to be performed at lowest possible form-factor and cost?

The answer is, use microcontroller based Web server.

The required firmware to convert any microcontroller to a web server is called as TCP/IP stack.

The microcontroller is not just enough to act as web server, but it requires Ethernet interface ICs like ENC28J60 or RTL8019 along with Ethernet RJ45 connector with magnetic.

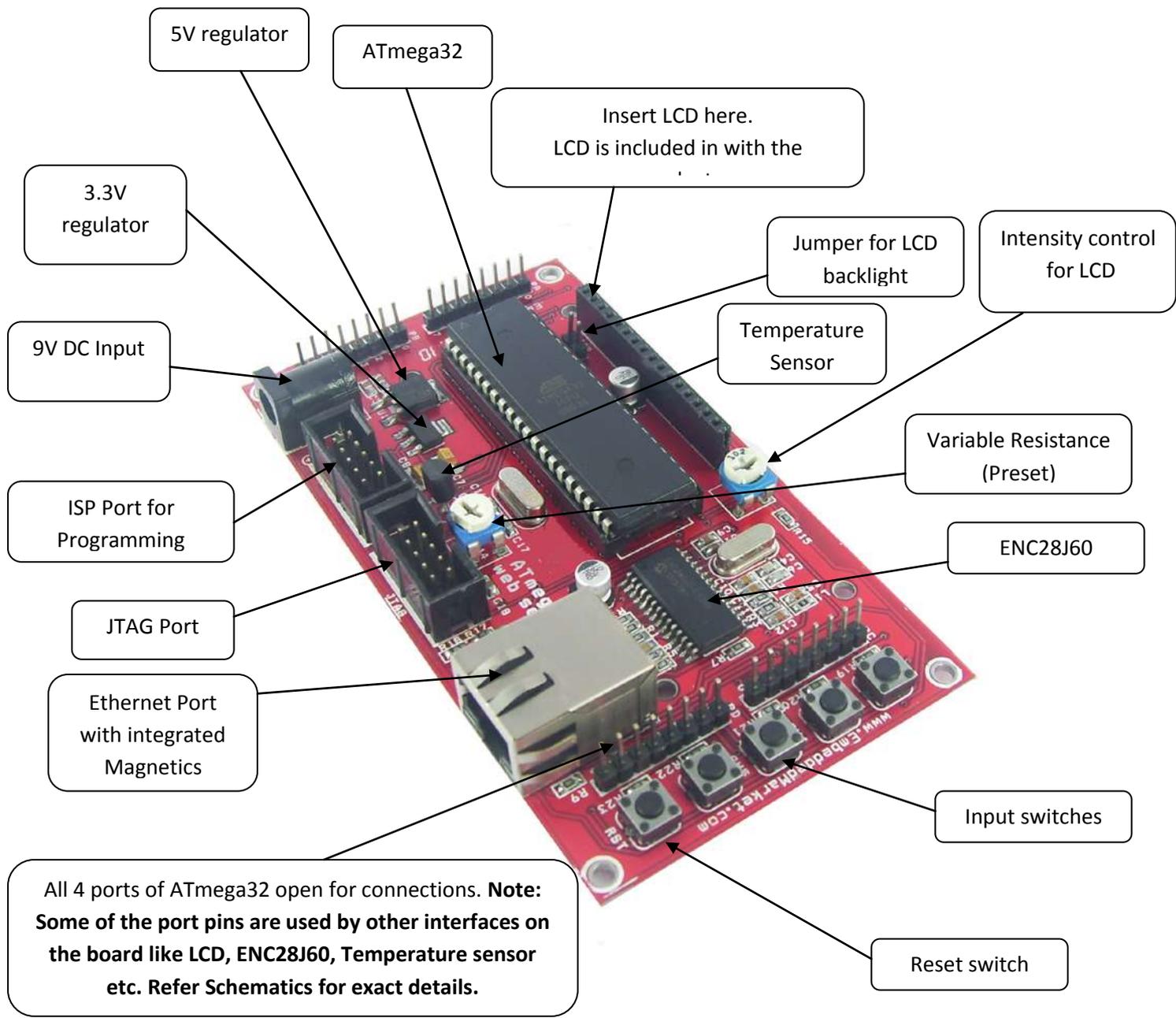
The product you are browsing is ready to use web server hardware loaded with required TCP/IP stack.

The firmware source code can be downloaded from the product's webpage.

Firmware credits to: avrportal.com

2.

AVR Web Server Hardware Details

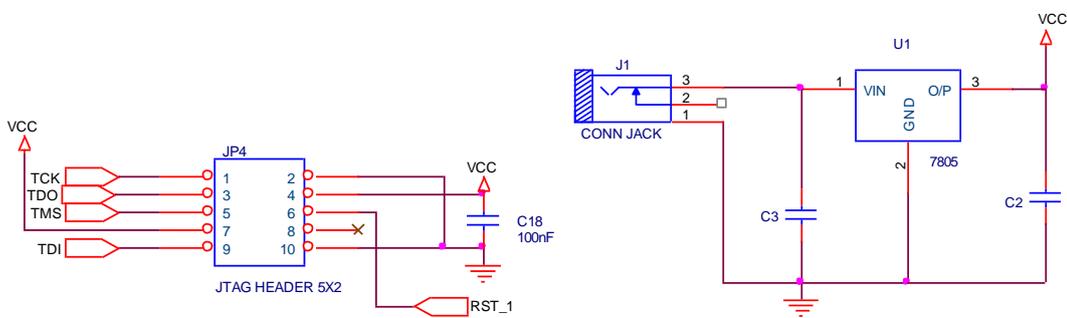
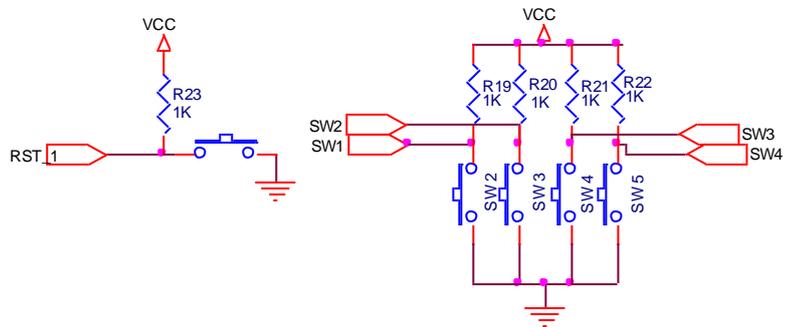
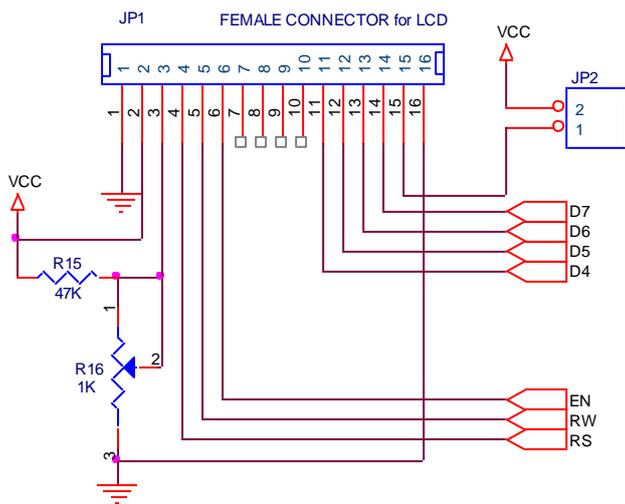
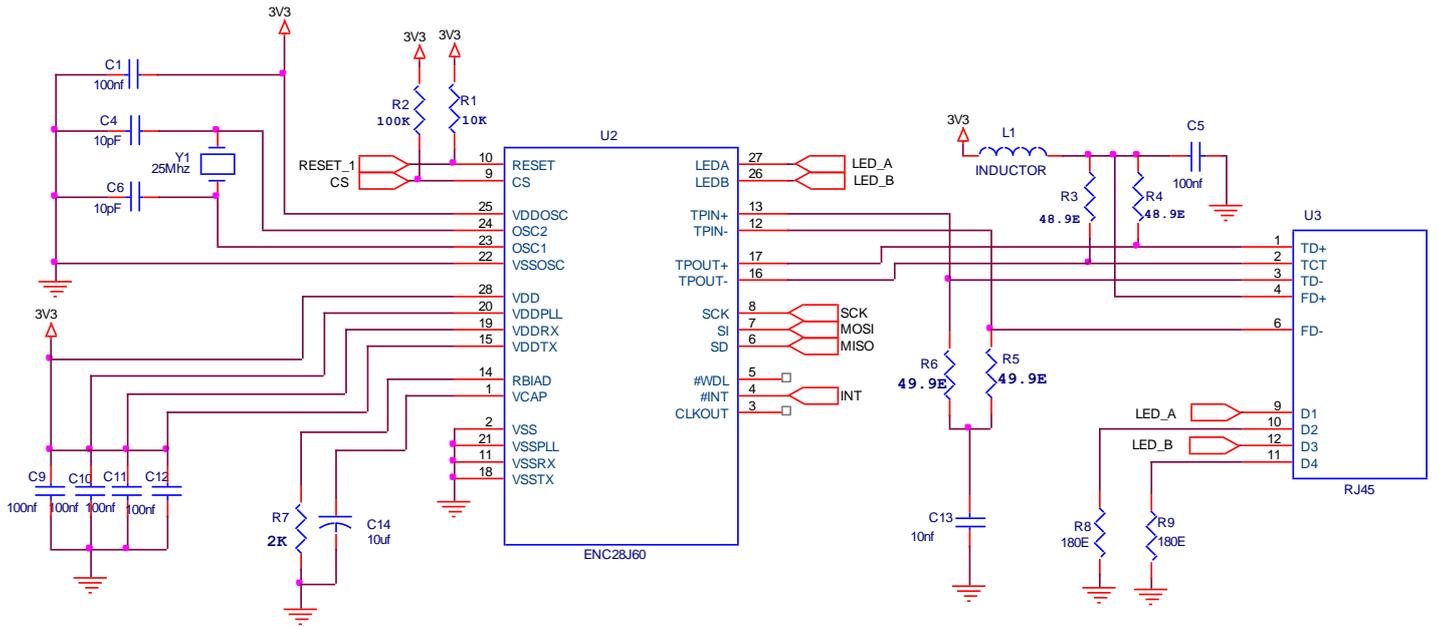


Pre-configured IP Address of the AVR web-server (This product) is 192.168.1.3

Pre-configured IP address of the PC / Laptop accessing this Product via Ethernet cable is 192.168.1.22

(Change IP of your PC or edit above IP using input switches)

AVR Embedded Web Server



I/O Lines used by on board interfaces:

| ATmega32 Port Pin | Interface Name & Pin |
|-------------------|--|
| PB0 | LCD – RS |
| PB1 | LCD - RW |
| PB2 | LCD - EN |
| PB4 | ENC28J60 – CS |
| PB5 | ENC28J60 – SI & ISP Port – MOSI |
| PB6 | ENC28J60 – SO & ISP Port – MISO |
| PB7 | ENC28J60 – SCK & ISP Port – SCK |
| PD2 | ENC28J60 – INT |
| PD3 | ENC28J60 – RESET |
| PD4 | LCD – D4 |
| PD5 | LCD – D5 |
| PD6 | LCD – D6 |
| PD7 | LCD – D7 |
| PC6 | LED marked on the board as D2 |
| PC7 | LED marked on the board as D1 |
| PA7 | Switch marked on the board as SW2 |
| PA6 | Switch marked on the board as SW3 |
| PA5 | Switch marked on the board as SW4 |
| PA4 | Switch marked on the board as SW5 |
| PA1 | Temperature Sensor LM35 |
| PA0 | Variable resistance (Preset) located near the JTAG port on the board |

Firmware: Available for download from the product's webpage

Firmware credit: www.avrportal.com/?page=avrnet

Usage:

1. Connect the “Cross” Type LAN cable between the Web server board and your PC/Laptop
2. Connect 9V DC Power to the board
3. The LCD shows IP address 192.168.1.3 This IP address is pre-configured for the AVR web-server
4. On your client (PC / Laptop), open any browser and type above IP address in the address bar, press enter
5. A web page will appear. This webpage is served by the AVR web-server.
6. If you have difficulty in understanding the client, web page and web server terminology then you are requested to learn basics of client-server web technology before working with this product.

4. Important information

1. The “AVR Embedded Web Server” product is designed for experiments and is not suitable to be used in life support and mission critical products.
2. “AVR Embedded Web Server” requires 9VDC power source with 1 Amp current sourcing capacity.
3. Always request support over email as it allows the technical team to answer it in more detail which is not possible over phone.
4. Manufactured by:

Embedded Market
205 Decision Tower
Next To CityPride
Satara Road
Pune 411037 India
Ph:+91 20 24228818
Email for Support- support@embeddedmarket.com
Email for Sales – sales@embeddedmarket.com
Website – www.EmbeddedMarket.com