# Arduino Ethernet Rev3 WITHOUT PoE



The Arduino Ethernet is a microcontroller board based on the Arduino Uno, and incorporating a WizNet W5100 TCP/IP Embedded Ethernet Controller. It can be programmed like an Uno via a six-pin FTDI -style serial connector. The Arduino USB 2 Serial adapter or any FTDI-style USB-to-serial connector can be used to program it. Additional features coming with the R3 version are:

- 1.0 pinout: added SDA and SCL pins for TWI communication placed near to the AREF pin and two other new pins placed near to the RESET pin, the IOREF that allow the shields to adapt to the voltage provided from the board and the second one is a not connected pin, that is reserved for future purposes.
- stronger RESET circuit.

A separate power-over-Ethernet (PoE) module can be soldered to the board to provide power from a conventional twisted pair Category 5 Ethernet cable. It is IEEE802.3af compliant, and works with all compliant PoE injectors currently available.

## Technical Specifications

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|---|---|
| Microcontroller | ATmega328 |
| Operating Voltage | 5V |
| Input Voltage (recommended) | 7-12V |
| Input Voltage (limits) | 6-20V |
| Digital I/O Pins | 14 (of which 4 provide PWM output) |

- Arduino Pins reserved
  - 10 to 13 used for SPI
  - 4 used for SD card
  - 2 W5100 interrupt (when bridged)

| | |
|---|---|
| Analog Input Pins | 6 |
| DC Current per I/O Pin | 40 mA |
| DC Current for 3.3V Pin | 50 mA |
| Flash Memory | 32 KB (ATmega328) of which 0.5 KB used by bootloader |
| SRAM | 2 KB (ATmega328) |
| EEPROM | 1 KB (ATmega328) |
| Clock Speed | 16 MHz |
| W5100 TCP/IP Embedded Ethernet Controller | |
| Power Over Ethernet ready Magnetic Jack | |
| Micro SD card, with active voltage translators | |