Arduino Ethernet Shield Rev3 WITHOUT PoE Module



The **Arduino Ethernet Shield** allows an Arduino board to connect to the internet. It is based on the <u>Wiznet W5100</u> ethernet chip (<u>datasheet</u>). The **Wiznet W5100** provides a network (IP) stack capable of both TCP and UDP. It supports up to four simultaneous socket connections. Use the <u>Ethernet library</u> to write sketches which connect to the internet using the shield. The ethernet shield connects to an Arduino board using long wire-wrap headers which extend through the shield. This keeps the pin layout intact and allows another shield to be stacked on top.

The R3 version brings to this shield the 1.0 standard pinout that consist in 4 additional pins: 2 of them placed near the AREF pin, that are used for TWI communication, and the other 2 are placed near the RESET pin. The IOREF pin is used to adapt the shield to the board on which is mounted. The last one is not connected and is reserved for future uses.

The latest revision of the shield adds a **micro-SD** card slot, which can be used to store files for serving over the network. It is compatible with the Arduino Duemilanove and Mega (using the Ethernet library). It also adds 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.