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Arduino Ethernet w/o PoE

DEV-11229 ROHS

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DESCRIPTION | FEATURES | DOCUMENTS

So you want your Arduino to surf the web but you don't have room for the Arduino board plus the Ethernet Shield. What do you do? How about giving the Arduino Ethernet a try? The Arduino Ethernet is an Arduino development board with the Wiznet Ethernet interface built in on the same board! It has 14 digital input/output pins, 6 analog inputs, a 16 MHz crystal oscillator, a RJ45 connection, a power jack, an ICSP header, and a reset button.

An on-board microSD card reader, which can be used to store files for serving over the network, is accessible through the SD Library. Pin 10 is reserved for the Wiznet interface, SS for the SD card is on Pin 4.

To make room for the Ethernet interface, they removed the USB-serial driver so you will need an FTDI breakout or similar device to upload your Arduino sketches. Also, Pins 10, 11, 12 and 13 are reserved for interfacing with the Ethernet module and should not be used otherwise. This reduces the number of available pins to 9, with 4 available as PWM outputs.

Arduino is an open-source physical computing platform based on a simple i/o board and a development environment that implements the Processing/Wiring language. Arduino can be used to develop stand-alone interactive objects or can be connected to software on your computer (e.g. Flash, Processing, MaxMSP). The open-source IDE can be downloaded for free (currently for Mac OS X, Windows, and Linux).

Note: Because of the height of the Ethernet Jack on this shield, you will need an extra set of stackable headers to get a shield to stack on top of it.

Tags

ARDUINO | DEVELOPMENT | ETHERNET | WIRELESS

Arduino Ethernet w/o PoE Product Help and Resources

SKILLS NEEDED

Core Skill: **Programming**

If a board needs code or communicates somehow, you're going to need to know how to program or interface with it. The programming skill is all about communication and code.

Skill Level: Competent - The toolchain for programming is a bit more complex and will examples may not be explicitly provided for you. You will be required to have a fundamental knowledge of programming and be required to provide your own code. You may need to modify existing libraries or code to work with your specific hardware. Sensor and hardware interfaces will be SPI or I2C.
See all skill levels

Core Skill: **Electrical Prototyping**

If it requires power, you need to know how much, what all the pins do, and how to hook it up. You may need to reference datasheets, schematics, and know the ins and outs of electronics.

Skill Level: Competent - You will be required to reference a datasheet or schematic to know how to use a component. Your knowledge of a datasheet will only require basic features like power requirements, pinouts, or communications type. Also, you may need a power supply that?s greater than 12V or more than 1A worth of current.
See all skill levels

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In 2003, CU student Nate Seidle blew a power supply in his dorm room and, in lieu of a way to order easy replacements, decided to start his own company. Since then, SparkFun has been committed to sustainably helping our world achieve electronics literacy from our headquarters in Boulder, Colorado.

No matter your vision, SparkFun's products and resources are designed to make the world of electronics more accessible. In addition to over 2,000 open source components and widgets, SparkFun offers curriculum, training and online tutorials designed to help demystify the wonderful world of embedded electronics. We're here to help you start something.

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General

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