Espruino WiFi

PRODUCT ID: 3514

Description

- Try the JavaScript of things with the **Espruino WiFi** - the world's first open-source JavaScript microcontroller, this time with built in WiFi! This little board has an STM32 microcontroller pre-programmed with Espruino all ready to go so you can start playing with Javascript-microcontrollers. It also comes with an ESP8266 WiFi module, so you can connect to the Internet using Espruino. **Warning:** if you only use Assembly and think that even embedded C/C++ is for wimps, this device might explode your head.

  The Espruino is a tiny computer with a JavaScript interpreter, allowing for instant feedback from whatever device you're working with. Simply set up your code with the Espruino and send it to the device without having to wait for the board to 'flash. With the new Espruino WiFi you get the best of Javascript with Internet connectivity.

  Once you've uploaded code, you can inspect and change variables (including functions!) while your program is running. There's loads of documentation, tutorials and support for a huge range of different hardware too. See how to get started here, or if you have any questions ask away on the Espruino forums! http://www.espruino.com/Reference   http://www.espruino.com/Tutorials http://www.espruino.com/Quick+Start   http://forum.espruino.com/

Features

- o 30mm x 23mm (1.2 x 0.9 inch)
- o On-board Micro USB connector
- o 2 rows of 11 0.1" pins, with 2 extra 0.1" holes
- o 21 GPIO pins : 8 Analog inputs, 20 PWM, 1 Serial, 3 SPI, 3 I2C
- o Three on-board LEDs (2x user programmable, 1x WiFi activity) and one button.
- o STM32F411CEU6 32-bit 100MHz ARM Cortex M4 CPU, 512kb flash, 128kb RAM
- o ESP8266 WiFi (802.11 b/g/n)
- o All GPIO is 5 volt tolerant (Arduino compatible)
- o RTC with external oscillator
- o On-board 3.3v 250mA voltage regulator, accepts voltages from 3.5v to 5v
- o Current draw in sleep: < 0.05mA - over 2.5 years on a 2500mAh battery
- o 500mA polyfuse on board

The Espruino's fast response time has a lot of advantages. It allows for quick and easy debugging and is a great way to test your project before your big reveal. In addition, you can control the Espruino from almost anything - Windows, Mac OS, Linux, RasPi, Android, anything that can talk to a USB Serial port.

The Espruino also interacts well with our NeoPixels. For more info, check out Espruino's page on the WS2811 and WS2812. http://www.espruino.com/WS2811

While the main advantage of the Espruino is its instant execution, it can also be used as a traditional board through a Web-based IDE hosted on your computer. The microcontroller also uses less power than Linux Boards (although its of course a lot less powerful as well) so will run longer on battery power, it has loads of IO pins, and it can be used as an IO board for PCs, Macs, or Rasp Pis without having to program it first. Simply take the Espruino out of its packaging and get started!

There's also more info on the Espruino page including tutorials and code examples. There aren't currently many tutorials using this board, however it can be used just like the Espruino Pico, which has a lot of tutorials available.

Technical Details

- o Dimensions: 30mm x 23mm x 7.1mm / 1.2" x 0.91" x 0.28"
- o Weight: 5.6g
- o Height w/ headers: 13mm / 0.51"
- o Circuit Diagram
- o Board Layout
- o STM32F411CE Datasheet
- o STM32F411CE Reference Manual

For product support, replacement parts and warranty for Espruino products click here. http://www.espruino.com/Contact+Us