LPC2148 Education Board

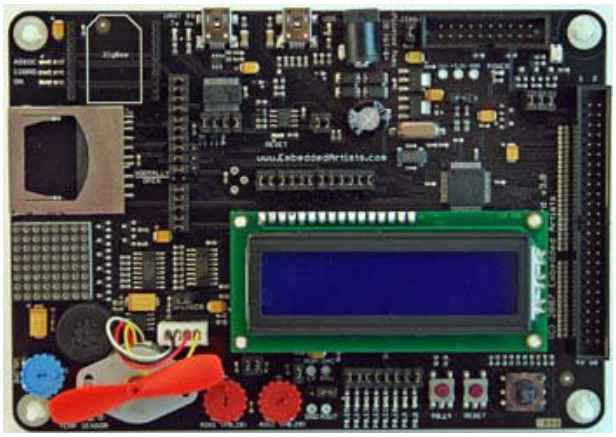
Price Information

Volume discount available for 25 boards, or more, see web shop

Art.no: **EA-EDU-001** **Buy**

Experiment Board

An Experiment expansion board is available, see Related Products tab.



Embedded Artists' **LPC2148 Education Board** is the perfect board if you want to start learning about ARM7 microcontrollers. The board contains many interesting and useful experiments.

Overview | **Specification** | MCU | Related Products | Resources | FAQ

LPC2148 Education Board

Processor	NXP's ARM7TDMI LPC2148 microcontroller
Program Flash	512 KB
Data Memory	32+8 KB
Clock Crystals	• 12.0000 MHz crystal for maximum execution speed (5x PLL = 60 MHz CPU clock) • 32 KHz RTC crystal
On-board Peripherals	• 2x16 character LCD with background light • Joystick switch • UART-to-serial bridge interface on UART #0 • XBee™ module interface (module not included) • USB 2.0 device interface (on LPC2148) • RGB-LED, each color can be controlled via PWM signal • 8 LEDs • Pushbutton on P0.14 • 8x8 LED matrix, controlled via shift registers in the SPI bus • Speaker on analog output (P0.25) • MMC/SD memory card interface • Step motor control • Temperature sensor (LM75) • 2 Analog inputs • Low-pass filtering of PWM signal • 1 Analog output • Reset button
Dimensions	156 x 110 mm
Power	On-board low-dropout voltage and reset generation • Generates +3.3V (and +5V supply if external 9-15VDC power supply) • +3.3V available for external circuits, up to 300 mA • Power supply: 9-15 VDC, from 2.1 mm power connector, or directly from USB connectors.
Connectors	• mini-B USB, USB-to-serial bridge interface • mini-B USB, LPC2148 device interface • MMC/SD memory card connector • JTAG • 50 pin expansion connector • 2.1 mm power supply connector
Other	• 2 Kbit I2C E2PROM for storing non-volatile parameters • Simple and automatic program download (ISP) via USB-serial channel. Circuit that

automatically controls the bootloader from USB-serial channel
• Four layer PCB (FR-4 material) for best noise immunity
• Delivered with 50 pos flat cable for explansion connector

Expansion Connector

The 50 pos expansion connector can be used for own experiments. The following signals are available on the expansion connector:
• P0.0 - P0.23, P0.25, P0.28-P0.31
• P1.16 - P1.25
• Reset
• Vref
• Vbat
• Power; VCC (+3.3V), GND, and Vin (+5V)

The *Experiment Expansion Board* can be bought separately for more interesting and useful experiments. For details about the board, see the *Experiment Expansion Board* page.