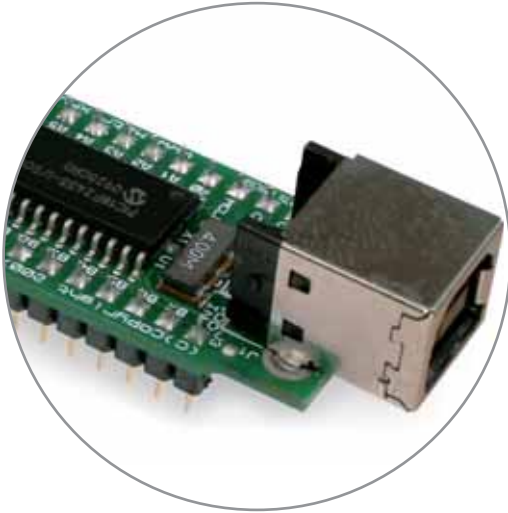ECIO single board computers provide one of the fastest and lowest cost ways of embedding advanced intelligence and control into your project.

- 28 and 40 pin 0.6" footprint, professional capability.
- Adds USB reprogrammability to your own circuit boards.
- Programmable from USB, power from USB.
- Compatible with Flowcode, C, Assembly, LabView and Visual Basic.

ECIO

ECIO hardware provides a low cost and simple way to move your projects to a finished state by allowing you to commit the ECIO into a static design. The ECIO boards all feature a direct USB connection to the microcontroller allowing for very easy USB communications and power. ECIO combined with Flowcode should all work great out of the box without having to worry about complicated road blocks such as configurations and oscillator circuits. They also provide one of the fastest and lowest cost ways of embedding advanced intelligence and control into your project.

ECIOs are used by hobbyists, students and engineers to develop projects based on microcontroller technology and are particularly useful when in-field reprogrammability or USB features are required. The ECIO family of USB programmable single board computers provides an incredibly simple way of adopting microcontroller technology into your projects. ECIO devices include a microcontroller with clock, power and programming circuitry on a standard 0.6" DIL header. When you plug the USB lead in to an ECIO you can reprogram the device or use the USB interface for communications with a PC.

Currently there are three ECIO devices based on PIC and dsPIC microcontrollers. ECIO devices are compatible with hex code from a number of compilers including Flowcode, BASIC, C and assembler.

MATRIX
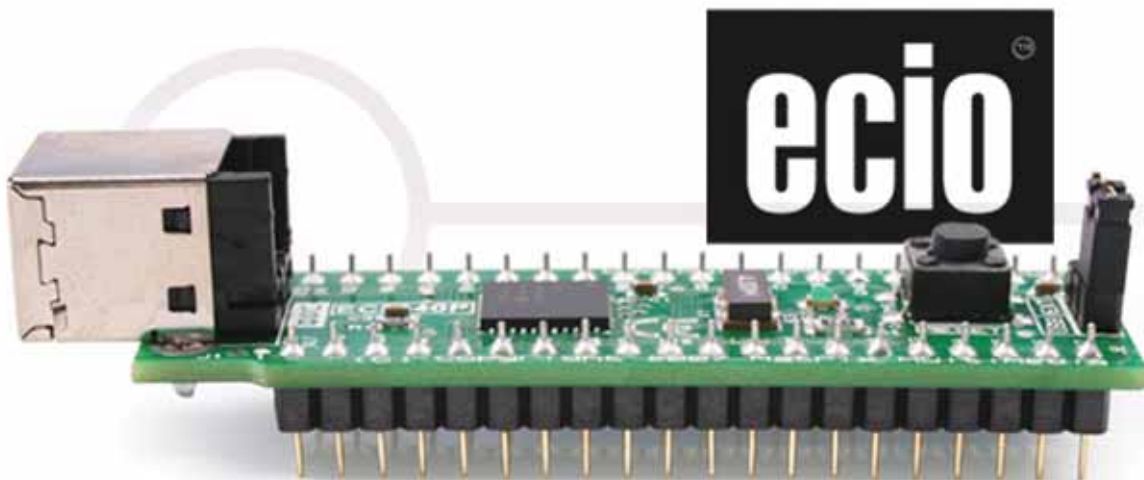
The ECIO family of USB programmable microcontroller modules behave just like a normal microcontroller - but when you plug the USB lead in and press the reset switch you can send a new program to the device. This, along with the low cost, makes ECIO ideal for student work at home and for incorporating into student circuit boards. ECIO microcontrollers are pre-programmed with a bootloader program which allows you to send a new program to the microcontroller via USB. ECIO is compatible with hex code from any appropriate compiler including Flowcode, C compilers and MPLAB.

Flowcode programs and Windows drivers are available for ECIO devices making them suitable for use with LabView, Visual Basic, C++ etc.

28 pin PIC 18 ECIO

Base chip	PIC18F2455
Oscillator	4MHz ext, 48MHz internal
I/O lines	19
A/D	10 x 10 bit
A/D sample rate	100ksps
Program memory	24K bytes
RAM	2K bytes
EEPROM	256 bytes
Power	5V, USB or external
PWM channels	2
Timers	1 x 8 bit, 3 x 16 bit
Interfaces	EUSART, MI²C, SPI, USB2.0
Package	28 pin, 0.6", DIP compatible

ECIO28P

40 pin PIC 18 ECIO

Base chip	PIC18F2455
Oscillator	4MHz ext, 48MHz internal
I/O lines	30
A/D	13 x 10 bit
A/D sample rate	100ksps
Program memory	24K bytes
RAM	2K bytes
EEPROM	256 bytes
Power	5V, USB or external
PWM channels	5
Timers	1 x 8 bit, 3 x 16 bit
Interfaces	EUSART, MI²C, SPI, USB2.0
Package	40 pin, 0.6", DIP compatible

ECIO40P

40 pin dsPIC ECIO

Base chip	dsPIC33EP256MU806
Oscillator	8MHz ext., 70MHz internal
I/O lines	34
A/D	20 x 12 bit
A/D sample rate	1.1 Msps
Program memory	256K bytes
RAM	28K bytes
EEPROM	0 (internal ROM overwrite)
Power	5V, USB or external
PWM channels	16
Timers	9 x 16 bit
Interfaces	4 x UART, 2 x MI2C, 4 x SPI, 2 x CAN, USB2.0
Package	40 pin DIP, 0.6" compatible

ECIO40P16

E-blocks application board

The ECIO application board adds E-blocks compatibility to the ECIO 28 and 40 pin devices. The application board provides up to 5 E-blocks ports which allow you to attach a wide range of E-blocks boards- from simple LED and switch boards through to Bluetooth, IrDA and Internet communications boards.

Use ECIO modules with a prototype board (HPAD01), with the E-blocks application board (EB061) or build it into your own circuit. A free set of 10 basic worksheets are available on our website which can be used with the Student ECIO starter kit (EC2961).
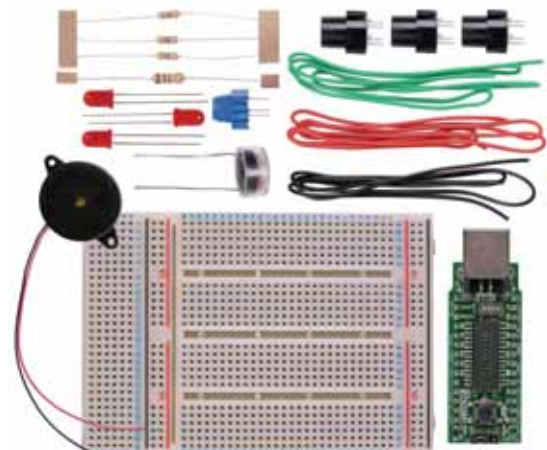
Ordering information	
E-blocks application board	EB061

Student ECIO starter kit

This kit is designed for students and hobbyists who want to start learning microcontroller circuit development at home. The kit is supplied with a high quality HPAD01 prototype board, a 28 PIN PICmicro microcontroller ECIO device (ECIO28P), 1.5 metres of single core prototype wire (red, black and green) and 13 electronic components which allow a wide range of experiments to be conducted. A suite of worksheets which includes build and software development instructions for 10 analogue and digital experiments are available from our website.

Ordering information	
Student ECIO starter kit	EC2961