Deluxe PICmicro® starter pack

What does it do?

Provides a selection of E-blocks™ that can be used for a wide range of applications in microcontroller programming: both for learning and for projects.

Benefits

- Can be used with a wide range of students - from technician to postgraduate
- Saves a great deal of time in project construction
- Can be combined with our courseware to provide a complete solution to learning

Features

- Includes utility software for downloading code
- Free introductory course in microcontroller programming
- Complete courses for C and Assembly programming are available
- Supplied in rugged storage trays with cables, backplane and accessories.

Description

This deluxe starter pack contains a metal backplane for mounting E-blocks, a power supply, a collection of individual E-blocks and utility software, rugged plastic storage trays and accessories like nuts and bolts, cables and IDC connectors. The E-blocks boards and accessories can be used to form a wide number of electronic systems, for learning or for project work, and additional E-blocks boards and sensors can be added to these systems as you need them.

This starter pack is also supplied a free introductory course: 'An introduction to microcontroller programming' on CD ROM. Additional courses in C programming or assembly code programming are available as extras, and these include all the compiler/assembler software needed for a compete learning and development.

For 2007/8 the E-blocks mix for these products has changed slightly and prices have been reduced. Please see below full details on pack contents. Plastic covers for all E-blocks are available which can extend E-block board life and prevent chips and links from being removed.

The product is shipped in rugged plastic trays for storage and transport.

Learning time

Not applicable: learning time is dictated by the course used with E-blocks. Flowcode , Assembly for PICmicros and C for PICmicros can each be used to give learning courses of 60 hours.

Prerequisites

Depends on course undertaken

Manual

An E-blocks user's guide is available electronically.

System requirements

PC with CD ROM drive and Windows 98 or greater.
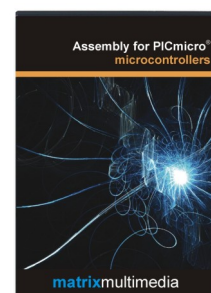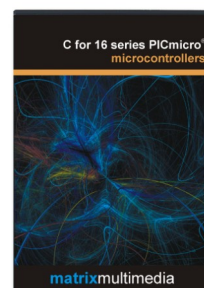
Further information

A separate datasheet is available for each of the E-blocks boards included in the pack. Please see our web site for details.

Order code

The order code for this product is EB110.

Also consider

CD ROM courses in C and Assembly code programming.

www.**matrix**tsl.com

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Pack contents

The table below gives a list of the pack contents. Datasheets on any individual item are available on request.

Tray	Qty	Code	Description
1	2	HP16F877	PIC16F877A
1	1	BP232	E-blocks backplane - tray compatible
1	1	EB216	Pack of 100 M3 anti-slip nuts
1	1	EB217	Pack of 100 M3 12mm pozi head screws
1	1	EB251	Male to Male IDC connector
1	1	EB355	E Blocks User Guide
1	2	EB634	E-blocks IDC cable
1	1	EBPUB	E-blocks publicity sheet
1	1	ELFCSSI3	An intro to microcontroller programming CD ROM
1	1	ELSAM	ELSAM mini CD ROM
1	1	HP2045	Shallow plastic tray
1	1	HP4039	Lid for plastic trays
1	1	HP5328	International power supply with adaptors
1	2	HP6219	E-blocks plastic mounting pillar
1	1	HP9734	Cardboard box for trays
1	1	HPUSB	USB lead
2	1	EB002	E-blocks screw terminal board
2	1	EB003	E-blocks sensor interface
2	2	EB004	E-Blocks LED board
2	1	EB005	E-Blocks LCD board
2	2	EB006	E-blocks USB Multiprogrammer
2	2	EB007	E-Blocks Switch board
2	1	EB008	E-Blocks Quad 7-segment display
2	1	EB011	E-blocks power board
2	1	EB013	E-blocks D/A and memory board
2	1	EB014	E-blocks Keypad
2	1	EB016	E-Blocks Prototype board
2	1	EB017	E-blocks patch board
2	1	EB039	E-blocks USB232 - board only
2	1	HP2045	Shallow plastic tray
2	2	HP2642	Holed foam for E-blocks trays
2	1	HP4039	Lid for plastic trays
2	1	HP9734	Cardboard box for trays

The CD ROM 'An introduction to microcontroller programming is included free of charge in this pack. The contents are as follows:

Learning objectives

Study of the CD ROM—will achieve the following objectives:

- Gain a thorough understanding of the basic concepts of programming microcontrollers from basic techniques through to interrupts.
- Develop the skills and techniques required to write develop electronic systems based on microcontrollers

CD ROM contents

The CD ROM is divided into several sections:

Labs contents

Lab 1: Outputs
Lab 2: Delays
Lab 3: Connection points
Lab 4: Calculations
Lab 5: Loops
Lab 6: Inputs
Lab 7: Decisions
Lab 8: LCD
Lab 9: Keypad
Lab 10: Analogue inputs and EEPROM
Lab 11: Macros
Lab 12: External interrupts
Lab 13: Timer interrupts

About PICmicro MCU chips

introduction
Digital vs Analogue
Inputs and outputs
Memory
Programming
16F877 architecture

Clocking your PICmicro device

E-blocks

Flowcode step-by-step

Digital outputs
Digital inputs
Basic loops
The LCD display
Binary numbers
Decisions
Connection points
7-segment displays

Software macros
Strings and memory
A simple Hi-fi

PIC projects

Construction methods
Choosing a power supply
Adding inputs
Input conditioning
Adding outputs
Adding drivers