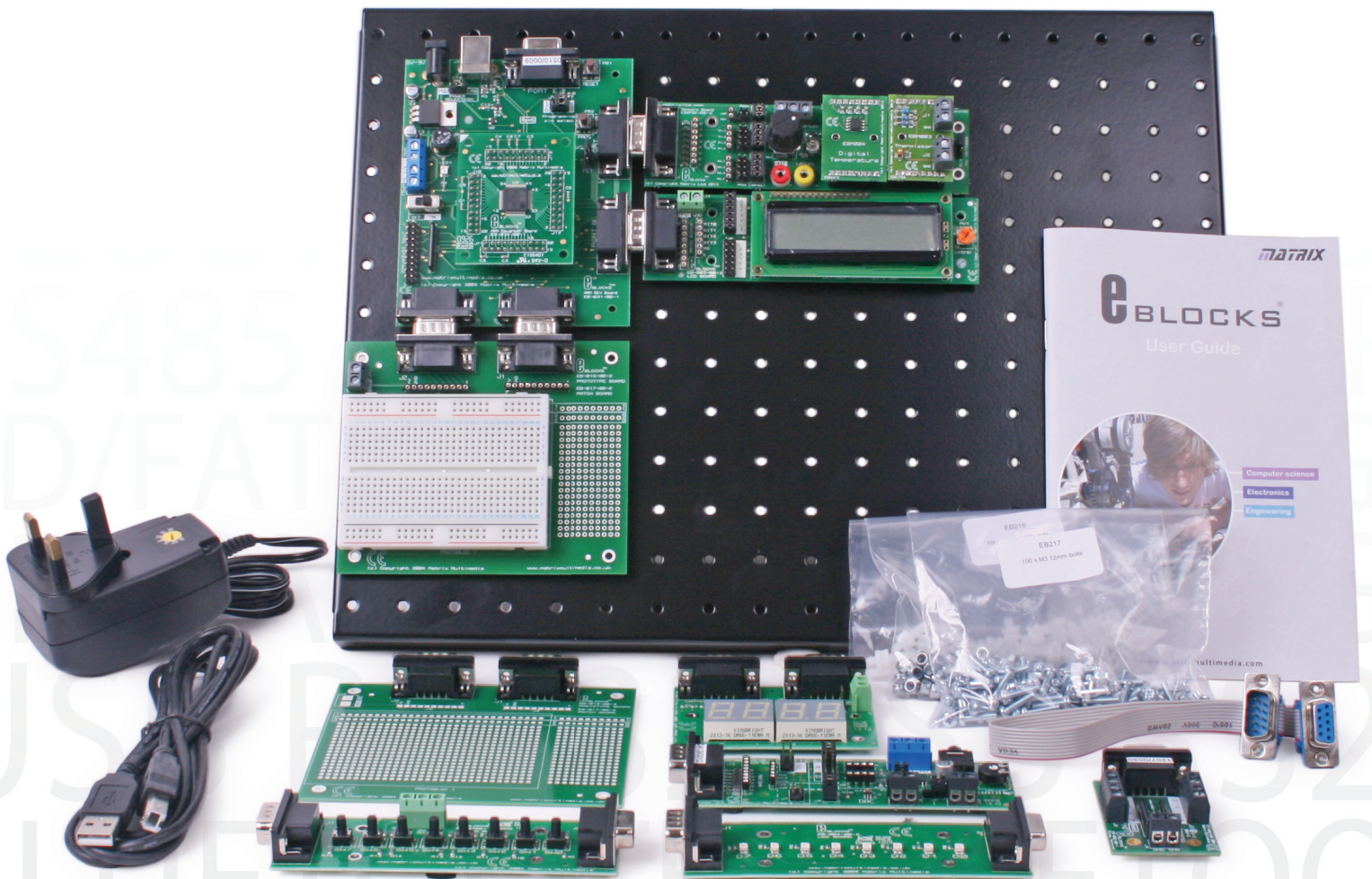# MATRIX

e BLOCKS®

Standard ARM starter pack

General information

This board 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.

1. Features

- Includes an ARM programming board
- A selection of peripheral and interface E-block boards
- Metal backplane and accessories for mounting the E-blocks
- Mains power supply adaptor
- Supplied in rugged storage/transport trays
- Downloadable resources from the Matrix TSL website, including:
- Utility software for downloading compiled code
- Free online course in microcontroller programming

2. Benefits

- Can be used with a wide range of students - from technician to postgraduate
- Can be used across many subjects in Engineering and Computer Science
- Saves a great deal of time in project construction
- Can be combined with our courseware to provide a complete solution to learning ARM programming

Pack description

The E-blocks deluxe ARM starter pack contains a range of E-blocks boards that can be snapped together to form a wide number of electronic systems. The starter kit which includes an ARM microcontroller programmer, switch and LED boards, display boards – both quad 7-segment and LCD – prototyping boards and sensor boards. This kit can be extended by adding further items from our range of E-blocks boards and sensors. Once your system is built from E-blocks you can mount it on the metal backplane sup-plied with the kit. The resulting system can then be screwed down – for those who require a permanently built system to work from – or can be easily dismantled ready for subsequent projects and investigations.

The E-blocks leads and accessories are shipped in rugged plastic trays which are convenient for storage and transport between labs.

The ARM device used is the Atmel AT91SAM 7 based on the ARM 7 core. This is a 32 bit flash RISC device (programmed by USB) with an internal 32 bit multiplier and many internal peripherals including USART, SPI, TWI and SSC serial communication, 10-bit ADC, USB and PWM outputs.
The ARM microcontroller is mounted on a small daughter board which makes it suitable for pro-ject work.

Further information

1. **Learning time**
Not applicable: learning time is dictated by the course used with E-blocks. Flow-code , Assembly or C

2. **Prerequisites**
Some programming in Windows
or em-bedded environment.

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

4. **System requirements**
PC with CD ROM drive and Windows XP or later.

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

6. **Order code**
The order code for this product is EB1401.

7. **Also consider**
Courses in Flowcode, C and Assembly code programming.
Deluxe starter packs
Solutions and trainer packs
Flowcode and Chip pack

Pack Contents

The table gives a list of the major items of the pack contents.
Datasheets on any individual item are available
from the resource section of the Matrix TSL website www.matrixtsl.com
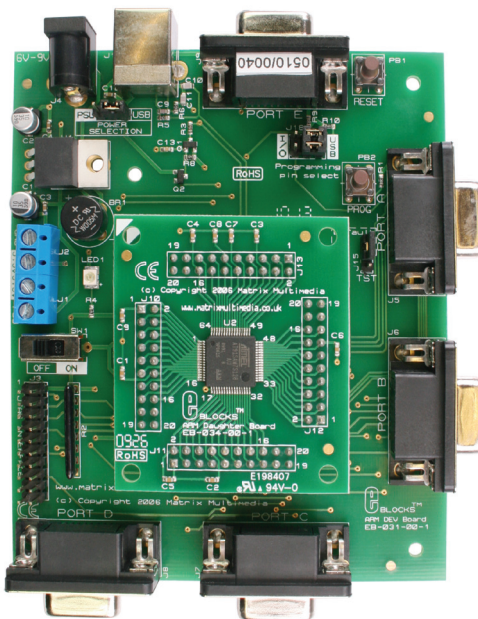
Qty	Description
1	E -blocks Metal backplane and accessories
1	E -blocks screw terminal board
1	E -blocks sensor interface motherboard
1	Thermistor sensor module
1	Digital temperature sensor module
1	E -blocks LED board
1	E -blocks LCD board
1	E -blocks ARM baseboard and daughter board
1	E -blocks Switch board
1	E -blocks Quad 7-segment display
1	E -blocks D/A and memory board
1	E -blocks Prototype board
1	E -blocks patch board
1	International power supply with adaptors
1	USB lead

MATRIX