NEW PICAXE 'X' PARTS NOW AVAILABLE!

The exciting new PICAXE X parts, available in 18, 28 and 40 pin formats, are now available. These 'extended' X parts have a whole range of new features, including a huge 600 program line memory. One of the most significant new features is support of the i2c bus, so that external memory and real-time-clock chips (and the new speech module - see below) can now all be easily interfaced to the PICAXE chip. All these features are demonstrated within the new PICAXE-18X datalogger kit, a complete 4-channel datalogger the size of 3 AA batteries!
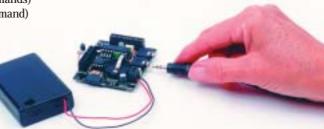
PICAXE 'X' Parts

WHAT'S NEW IN THE PICAXE X PARTS?

The extended X parts support all the standard features, with the following enhancements:
· Program memory 8x as long (approx. 600 lines rather than 80), with intelligent download
· i2c bus support for EEPROMs and other devices (i2cslave/writei2c/readi2c commands)
· 10 bit and 8 bit ADC option (readadc10/readadc commands)
· User configurable input/output pins on the PICAXE-28X and PICAXE-40X
· Accurate digital temperature sensor interface (readtemp/readtemp12 commands)
· Read serial number from any Dallas 1-wire device (e.g. iButton) (readowsn command)
· Continuously driven pwm motor drive outputs (pwmout command)
· Count high frequency pulses within a set time period (count command)
· Large data memory (128 or 256 bytes) (read/write commands)
· Interrupt feature on inputs (setint command)
· 4800 baud rate option (serin/serout commands)
· User serial output via the programming cable (sertxd command)
· Software support for increased clock frequency (4, 8 or 16 MHz)
· Computer keyboard interface on inputs 6 and 7 (keyin, keyled command)

PICAXE-18X Datalogger in use

PICAXE MICROCONTROLLER COMPARISON:

PICAXE Type	Part Number	IC Size	Memory (lines)	I/O Pins	Outputs	Inputs	ADC (L =low)	Data Memory	Polled Interrupt
PICAXE-08	AXE007	8	40	5	1-4	1-4	1L	128 - prog	-
PICAXE-18	AXE015	18	40	13	8	5	3L	128 - prog	-
PICAXE-18A	AXE015A	18	80	13	8	5	3	256	Yes
PICAXE-18X	AXE015X	18	600	14	9	5	3	256 + i2c	Yes
PICAXE-28A	AXE010A	28	80	20	8	8	4	64 + 256	Yes
PICAXE-28X	AXE010X	28	600	21	9-17	0-12	0-4	128 + i2c	Yes
PICAXE-40X	AXE014	40	600	32	9-17	8-20	3-7	128 + i2c	Yes

PICAXE-18X DATALOGGER

The PICAXE-18X datalogger is a complete 4 channel datalogger, supplied with LDR light sensor and digital temperature sensor. Uses easily expandable i2c EEPROM to store data, and additional sensors can be added as desired.

PICAXE-18X Datalogger (kit): AXE110
Pre-assembled Datalogger: AXE110P
PICAXE download cable: AXE026

DATALOGGER OPTIONS

The DS1307 real-time-clock upgrade adds accurate time/date functions to the basic datalogger system.
Real Time Clock Upgrade: AXE034

The datalogger memory expander increases the memory capacity of the datalogger. Requires 4 or 8 24LC256/P EEPROMs (purchase separately).
Datalogger Memory Expander: AXE111
24LC256/P EEPROM chip: MIC050

The serial LCD module allows the datalogging readings to be displayed whilst the mission is active.
Serial LCD Module: AXE033

Use a piezo to add sounds to the system.
Piezo Sounder: SPE002

For more information please see
www.picaxe.co.uk

SPEECH SYNTHESIZER

The speech synthesizer module is a complete text-to-speech 'talking' module, containing an on-board amplifier, speaker and text to speech processor. Up to 30 pre-defined phases can be stored in the module, and the module can be controlled by standard PICAXE outputs or via the i2c bus (with PICAXE X parts).

Speech Synthesizer: SPE030
PICAXE-18X microcontroller: AXE015X