

# 8 PIN PICAXE PROJECT KITS

## EXCITING PROJECT KITS FOR THE 8 PIN MICROCONTROLLER!

The project kits have been specifically designed as low-cost High School (KS3) projects that students can assemble, program and take away with them at the end of the module. Each project introduces several electronic components, as well as the microcontroller itself and its programming techniques. Each project has great potential for students to customise and develop their own control program for the project, and the chip can be re-programmed over and over again to modify the operation of the project.

Each project can be used with the PICAXE (or Chip Factory) microcontroller programming systems. A full 35 page photocopiable teaching booklet is available for each project. Projects with a piezo sounder can also be used with the PICAXE-08M music chip to play mobile phone 'ring-tones' if desired!

The PCBs are supplied as high quality production pre-drilled boards. The boards are all coated with a solder resist lacquer layer over the tracks which greatly assists the students to achieve successful soldering. A customised injection moulded case is also available for the safety light to enable the students to produce a commercial quality product.

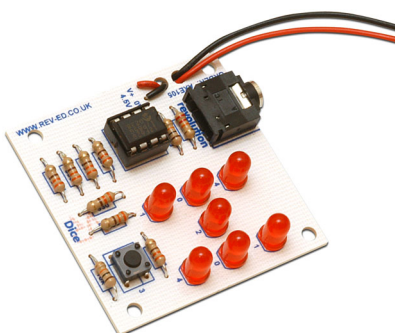
The teacher packs provide full parts lists & order codes, and all discrete components used are common parts available from all electronic suppliers. Full packs of all components are also available upon request.



*Assembled AXE103 Safety Light clipped onto a belt.*

### DICE PROJECT

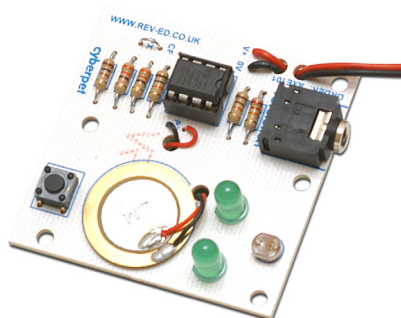
This classic project uses the 8 pin microcontroller to create an electronic dice. Students can choose to activate the dice by a switch or light-sensitive LDR.



**Dice Project PCB (set 25):** AXE105  
**Dice Full Kit & PCB (set 5):** AXE105K

### CYBERPET PROJECT

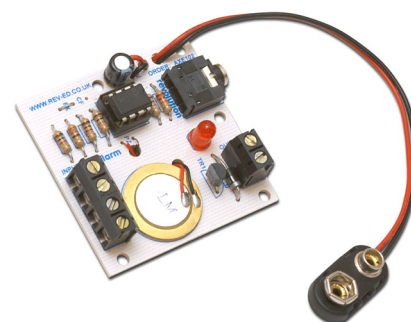
This low-cost project uses an 8 pin microcontroller to create an electronic pet with LED 'eyes' and a piezo sounder 'voice' that reacts to touch (via a push switch) and light (via a miniature LDR).



**Cyberpet Project PCB (set 25):** AXE101  
**Cyberpet Full Kit & PCB (set 5):** AXE101K

### ALARM PROJECT

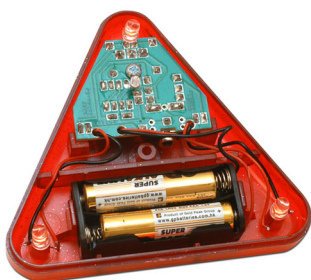
This low-cost project uses the 8 pin microcontroller to allow a customisable alarm to be created. The alarm responds to a number of user selectable inputs such as tilt switches or light sensors, and activates an LED indicator and piezo siren.



**Alarm Project PCB (set 25):** AXE102  
**Alarm Full Kit & PCB (set 5):** AXE102K

### SAFETY LIGHT PROJECT

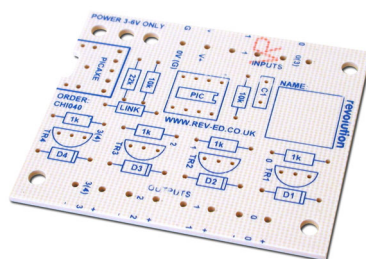
The safety light uses three high intensity LEDs to create a pedestrian/cyclist safety light. The patterns displayed by the lights can be re-programmed, and the option of adding an LDR light sensor allow the patterns to change when, for instance, a car's headlight shines on the board. A high quality translucent triangular shaped red plastic case (with belt clip) is available separately.



**Safety Light PCB (set 25):** AXE103  
**Full Kit and PCB (set 5):** AXE103K  
**Safety Light Casing & Belt Clip:** AXE103C

### PROJECT BOARD PCB

The project board PCB enables students to construct a generic project board that has 4 outputs and 1 or 2 inputs. The board provides space for the microcontroller and 4 transistors for driving output devices such as motors and buzzers.



**8 Pin Project Board PCB (single):** CHI040  
**8 Pin Project Board PCB (set 25):** CHI041  
**Full Kit & PCB (set 5):** CHI041K

### CHRISTMAS SPECIAL!

A custom 'Rudolf the Red Nosed Reindeer' version of the Cyberpet project is now available with a shaped PCB. The kit is also supplied with PICAXE-08M (music enhanced) chip to enable playing of Christmas tunes and carols!

**Rudolf Project PCB (set 25):** AXE107  
**Rudolf Full Kit & PCB (set 5):** AXE107K

### TEACHERS PACK

The Teachers Pack consists of a sample PCB for each of the first 4 projects described above, 4 PICAXE-08 chips and a CDROM containing the student notes and teacher guides. The student notes may be printed out and then duplicated for use within the purchasing institution.

**Teachers Pack & Sample PCBs (PICAXE):** AXE100

**For more information please see**  
[www.picaxe.co.uk](http://www.picaxe.co.uk)