

# TEP work in progress: PICtalk

## Control and communications: everything you need on one board



TEP is currently supporting the development of a new resource for

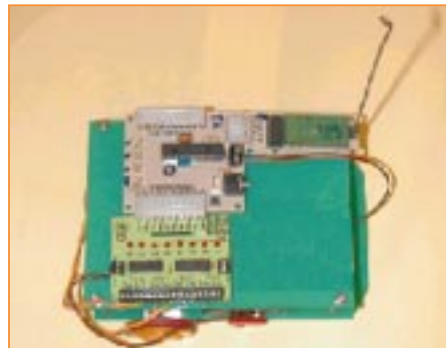
Design and Technology. Developed by staff at the University of Salford, PICtalk is a new electronics resource designed to enable pupils at key stage 3 and 4 to explore systems and control.

At an introductory level, pupils can use PICtalk for simple control sequences. As pupils progress, they can use the wide range of sensors available in PICtalk. In their GCSE work pupils can explore applications involving transmission of digital signals and understand systems that are in common use, such as:

- Remote doorbell operation
- Wireless alarm systems
- Remote operation of a control system (e.g. a buggy)
- Data transfer

The programming software

is a new version of the popular Crocodile Technology. So pupils can use the same software for their work with components, control and communications. Pupils can design their hardware on screen and



write the controlling software in flowchart form. The programme also enables pupils to design their own plug-in boards for GCSE project work.

The **controller board** has:

- 8 digital inputs for control
- 8 digital outputs
- 4 analogue inputs
- a communications connector

The **digital input board** has:

- 8 on-board switches
- 8 connectors for external switches or digital sensors

The **digital output board** has:

- 8 on-board LEDs
- Drivers for 8 external devices (lamps, relays) or 4 dc motors with on/off/forward/reverse control

The **communications boards**:

- use a state-of-the-art low power radio transmitter and receiver
- do not require a special radio licence
- have a range that easily covers normal workshop use.

**There is no need to remove the PIC for programming.**

Support materials will include:

- Pupil activity book giving background information and progressive hands-on tasks dealing with both control and communication.
- Teacher support material offering extension work and support for project activities.

For up-to-date news on PICtalk, please visit the TEP website.