

# Incorporating Computer Control into Student Project Work using a PIC Microcontroller.



NCTE: National Centre for Technology in Education

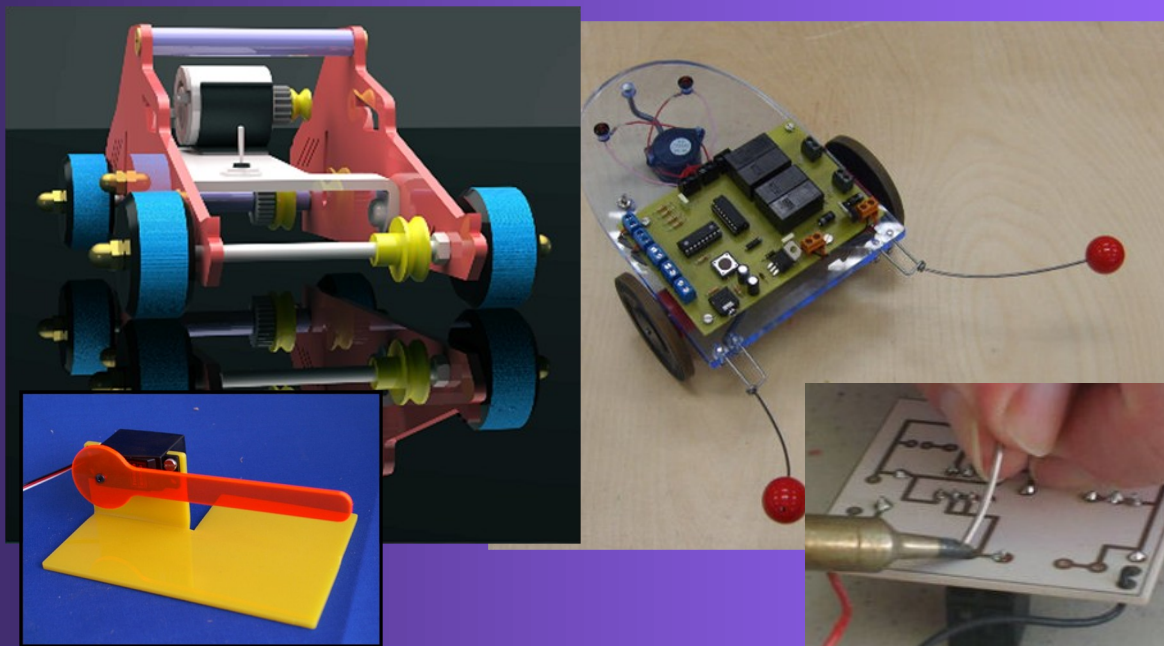
*An NCTE course organised in association with t4 for teachers of Construction Studies, Engineering & Technology on how to incorporate Computer Control into Student Project Work using a PIC Microcontroller.*

## Outline of Course Content:-

- The evolution of electronics engineering.
- Creating a generic PIC project board
- Fault finding techniques.
- Using GENIE Design Studio software.
- Programming the PIC chip.
- Using the PIC to control inputs & outputs relevant to a range of student projects .

### Note:

**All teachers attending will receive a copy of Genie Design Studio Software, Project Board, PIC Chip, Input & Output components, USB Download Cable.**



## Course Topics:-

- Introduction to Applied Control.
- Component identification and requirements .
- Building a student project PIC board
- Testing the PIC board.
- GENIE Design Studio interface.
- Controlling outputs – Speaker, LEDs, Motor.
- Responding to digital inputs - Switches.
- Responding to analogue inputs – Light & Temperature.
- The use of compare, increment & expression commands.
- Developing computer control programmes suitable for use in student projects.

## Venues

## Dates

Carrick-on-Shannon Education Centre	13th & 20th March 2010
Cork Education Support Centre	13th & 20th March 2010
Donegal Education Centre	13th & 20th March 2010
Dublin West Education Centre	13th & 20th March 2010
Drumcondra Education Centre	13th & 20th March 2010
Kilkenny Education Centre	13th & 20th March 2010
Limerick Education Centre	13th & 20th March 2010

**Application forms available from Education Centres**