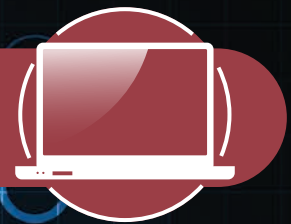


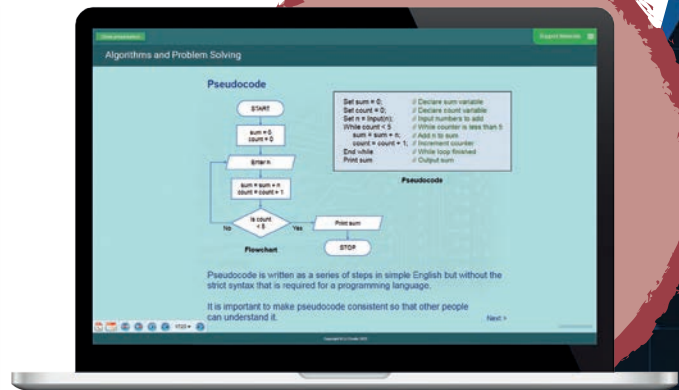
# INFORMATION TECHNOLOGY (40-50 LESSONS)



This course explores techniques for algorithm development, including the use of **flowchart design** and pseudo code. Students will develop and test programs to control a range of robotic systems. They also investigate security and privacy considerations when using IT in a workplace environment.

## Learning Objectives

- Explore careers in the IT sector
- Use an algorithm problem-solving process to develop solutions to engineering problems
- Develop algorithms that use sensor inputs and physical outputs
- Recognize the use of control structures to design hardware control systems
- Use control structures in the design of programs for robotic systems
- Design and program solutions to a range of robotic systems
- Identify IT safety and security considerations
- Recognize the principles of computer networks and how they are used in industry
- Explore the basic concepts (and terminology) of modern communications technology



## Typical Careers

Applications Software Developer,  
Computer Programmer, Software Quality  
Assurance Engineer

## Lessons

- Introduction - Careers: Computer Science
- Computer Science
- Spreadsheets - Working with Data
- Communications Technology
- Workplace IT

## Equipment

- Engineering Construction Kit (220-01)
- Educational Robotics Invention Kit - ERIK (250-01)
- Electronics Communications Trainer (200-01)

