



SWITCHED ON

Number of Participants Maximum 15 Learners	Duration 2 hours	Price £7.00 <i>per learner</i>
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OVERVIEW

As technological advancements become more integrated into our lives, our homes are becoming more and more automated as SMART technologies help to create our 21st century SMART homes. Automation is the use of technology to control devices around the home in order to be more efficient as well as being more economical for residents.

Switched On introduces this aspect of technology as home automation increases in popularity due to affordability and accessibility of devices such as tablets and smartphones. These devices can connect to technology at home from virtually anywhere with internet connectivity. Switch On will explore how these devices can be implemented into households and how to create instances of home automation on a small scale.

ACTIVITIES

Introduction to Arduino – During this activity you will become familiar with the Arduino circuit board and components and input code to create a simple program which will turn an LED on and off when a switch is pressed.

Traffic Lights – Now that you're familiar with the Arduino and components, can you code it for something a little more complicated?

Christmas Tree – Your final task is to rewire and code the Arduino to create the Christmas tree lighting effect.

KEY EMPLOYABILITY SKILLS

- Problem Solving
- Digital Literacy
- Self-Management
- Decision-Making
- Critical-Thinking
- Creativity
- Independent Learning

KEY STEM SKILLS

- Coding Skills
- Following Instructions
- Interpreting Results and Making Adjustments
- Constructing Computer Hardware