

Coding with Robots

INDUSTRY FOCUS AREA:	All
VICTORIAN CURRICULUM LINKS:	Digital Technologies, Personal and Social Capability
TECHNOLOGY USED:	Thymio, Sphero, LEGO Mindstorms
YEAR LEVEL:	Year 8 - 10
DURATION:	1 Day
LEVEL:	Beginner – Intermediate
MAX STUDENTS:	30

Introduction

In 'The New Work Order', the Foundation for Young Australians predict that at least 50% of Australian workers will need to be able to use, configure, or build digital systems. The ability to understand and manipulate these systems is becoming more and more important for students. Coding is also becoming more accessible with coding language like Scratch from MIT and the wide variety of block-based coding language.

Program Summary

This program introduces students to different styles of coding and some of the advantages and disadvantages of each. Students will start with an offline coding activity that has them coding with another student to complete a simple task. They will then move to coding three different types of robots using three different coding languages. The final part of the program sees students working in small teams. They will bring together their new learning to harness the power of the different robots they have used to create a synchronised robotic performance.

Taking part in this program, students will collaboratively:

- Code using block, Scratch, and text coding languages
- Develop an understand of the advantages and disadvantages of different coding language
- Develop a solution to a robotics challenge

Career Links:

Software development, app designer, mechatronics, digital animation, game design.

