Connecting Learning to Work

Teacher Guide

Title: Careers in Robotics

Aims

- To show students that entrepreneurship presents an opportunity to work in the robotics industry without having formal technical skills in this field.
- To undertake a self assessment of some features that relate to entrepreneurship to help identify possible level of interest and ability in using these in future careers.

Activities and resources

1. Introduction

Teacher leads a brief discussion/outline of what 'Entrepreneurship' entails.

- Ask some stimulus questions such as:
  Would you like to own a business? Why?
  What are some disadvantages of owning a business compared to working for someone else?
  What are some examples of characteristics that make a good business owner?
  When you buy something, how do you expect to be treated by the salesperson and business?
  Do you think robotics would be a good industry to own a business in? Why?

- Outline that there are two broad categories of activity in the robotics industry
  Designing and creating robots
  Determining the need for robots in the community and getting robots into the community to meet those needs

An outline of some examples of robots and trends in robotics can be found at:
https://robycstechnology.com.au/robotic-technology-australia/

2. Video and worksheet

Show the video "Interview – Nicci Rossouw"

- Students complete the worksheet..... The worksheet may be modified to suit the time available and/or the interests of the students.

Further information

Students interested in gaining more information can be directed to the following resources:

Connecting Learning to Work

1. Job description and pathway into Robotics Engineering
   https://this.deakin.edu.au/career/how-to-become-a-robotics-engineer

2. Current and future trends in employment

www.joboutlook.gov.au

Enter 'Engineering Professionals' in the search box. This includes a range of engineering occupations including mechatronics engineering. Opening up the link will give access to a range of information relating to Multi-Media Specialist and Web Engineering occupations in Australia including

- Prospects
- Pathways
- Skills and Knowledge
- Work Environment

Within these categories there is information on topics including tasks; predicted growth in employment; wages; and characteristics of the workforce.

3. Courses to gain qualifications to work as a Robotics or Mechatronics Engineer

   A possible pathway is identified in information at the following:
   https://this.deakin.edu.au/career/how-to-become-a-robotics-engineer

Students interested in researching options for further education in multi-media can be directed to www.vtac.edu.au They use the 'Course Search' tool and enter 'Robotics' or 'Mechatronics' in the search box. Choose 'Include majors in keyword search'. This then gives them a list of all courses offered in Victoria that provide at least a major in robotics or mechatronics. The details for each course include:

- Majors offered
- Pathways into the course
- Graduate career opportunities
- Post graduate study pathways
- Prerequisites
- Subject adjustments (Students can get a 'bonus' for doing the specified subjects in VCE and this can help boost their selection rank).