



Flat Pack Furniture Challenge

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| INDUSTRY FOCUS AREA: | Advanced Manufacturing |
| VICTORIAN CURRICULUM LINKS: | English, Mathematics, Design Technology, Digital Technologies |
| TECHNOLOGY USED: | CAD, Laser Cutting, CNC |
| YEAR LEVEL: | Year 8 - VCAL |
| DURATION: | 2 - 3 Days |
| LEVEL: | Intermediate |
| MAX STUDENTS: | 30 |

Introduction

We often hear that students are being prepared for jobs that don't yet exist. While this is true, there are certainly skills that employers currently and will continue to look for. The ability to work within guidelines, meet customer needs, and communicate ideas are employable skills that won't change.

Companies are also often looking to reduce the prices of transport and shipping. One way to do this is using flat packs. These are packs that ship in flat boxes but that can be put together into large items. IKEA are one of the most famous users of this method but there are many others.

Program Summary

Students will use their maths skills to design a piece of flat pack furniture within the requirements set out by the customer. Students will be presented with an interview from the customer from which they will need to identify the design requirements. They will use CAD software to design their product before manufacturing using the laser cutter or CNC machine.

On day 2, students will design a campaign to market and sell their product focusing on the use of persuasion and new technologies to improve their marketing.

Taking part in this program, students will collaboratively:

- Identify design parameters and constraints
- Use industry level design software to create designs
- Evaluate their work against the requirements
- Designs a marketing campaign incorporating cutting edge technology

Career Links:

Artisans: Carpenter, Machinery Operator, Manufacturing

Designers: Architect, Industrial Engineer, Draftsperson

Generators: Sales Representative, Retail Supervisor, Entertainer

<https://www.fya.org.au/wp-content/uploads/2016/11/The-New-Work-Mindset.pdf>

