Industrial Technology
Stage 5 - Year 9
Timber Frame
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1. Rationale
The purpose of this project is to design, develop and construct a project from a set of specifications. Students are to complete design research. This will hopefully allow greater understanding of the purpose of the project as well as the design and construction methods selected.

Design development resulting in individualisation of project is not an element of this project. An accompanying Portfolio will document all processes of this project.

2. Description of project
The Timber Frame is an item specifically designed as an introduction to stage 5 Industrial Technology. This is the first time you have chosen Timber Technologies as an elective course and the intensity and requirements of the course are considerably greater than experienced in the Stage 4 Technology Mandatory course. As a result you will be expected to develop the skills to produce high quality hand cut joinery. You are also expected to understand why such techniques are used; an assessable portfolio will address this requirement further.

The timber frame is somewhat simple in construction but employs many of the techniques used in larger projects. This is helpful for those students looking a completing Industrial Technology or Design and Technology in Stage 6.
3. Materials

Warm, dense and resilient, Tasmanian Oak is the preferred hardwood for a wide range of applications. It works extremely well and produces an excellent finish. It can be used in all forms of construction and in interior applications such as paneling and flooring. It can be glue-laminated to cover long spans. Veneers, plywood and engineered products are also available. It is also a popular furniture timber, and its fibre is sought after for reconstituted board and production of high quality paper.

Tasmanian Oak is light in colour, varying from straw to reddish brown with intermediate shades of cream to pink. It is recognised for its excellent staining qualities, which allow ready matching with other timbers, finishes or furnishings.

Tasmanian Oak is marketed under different names depending on where it is being sold. In Victoria and NSW it is also sold under the trade name Victorian Ash.
4. Cutting list and Costing

Yr9

4 Side joint project

<table>
<thead>
<tr>
<th>Item</th>
<th>Timber size (mm)</th>
<th>Length (mm)</th>
<th>Quantity</th>
<th>$ per meter</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pine</td>
<td>42 x 19</td>
<td>250</td>
<td>4</td>
<td></td>
<td></td>
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</tbody>
</table>
5. Construction Process

- Cut timber into four equal lengths
- Cut Mortise and Bridle Joint
- Cut Mortise and Bridle Joint
- Cut Bridle and Dowel Joint
- Cut Bridle and Dowel Joint
- Cut Dowel and Dovetail Joint
- Cut Dowel and Dovetail Joint
- Cut Dovetail and Tenon joint
- Dry assemble to test fit and tolerance, make necessary adjustments
- Final sand then Glue up
Do not scale drawing

Mr Reed

9.5

47 5

47 32 171

42 42 166

42

250

10 22 10

10

\( \phi 10 \)

9.5

42

42

250

Dowel-DT

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