

<b>Title</b>	<b>Assemble electronic products</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>15</b>

<b>Purpose</b>	<p>This unit standard covers the assembling of electronic products from their component, parts, sub assemblies, printed circuit boards, and hardware.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> <li>–set up the assembly environment;</li> <li>–assemble electronic products; and</li> <li>–check completed products.</li> </ul>
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<b>Classification</b>	Electronic Engineering > Electronic Manufacturing
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<b>Available grade</b>	Achieved
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### Guidance Information

#### 1 Definitions

*assembly* of electronic products typically involves the housing, fixture, and interconnection of electronic, electrical, and mechanical components, printed circuit boards, and sub assemblies.

*product* here refers to the final assembly of the item being manufactured. This could be a complete product ready for practical use, or a sub assembly for another manufacturing process.

#### 2 Range

- a evidence of at least two different types of products is required;
- b the assembly process may involve the use of any or all of the following hand or power tools – soldering irons, screwdrivers, spanners, pliers, wire cutters and strippers, power screw and socket drivers, air guns, pneumatic tools, specialist tools and jigs for the given component technology.

#### 3 References

Health and Safety in Employment Act 1992;  
 ANSI/IPC J-STD- 001D, *Requirements for Soldered Electrical and Electronic Assemblies*, February 2005, published jointly by IPC – Association Connecting Electronics Industries and the Electronic Industries Alliance;  
 IPC-A-610D, *Acceptability of Electronic Assemblies*, 2005, published by IPC – Association Connecting Electronics Industries.

- 4 The following apply to all outcomes of this unit standard:
- a all activities are to be completed and reported within agreed timeframes;
  - b all work practices must meet worksite's documented quality management requirements;
  - c all activities must comply with policies, procedures and requirements of the enterprises involved; and any relevant legislative and/or regulatory requirements, which include, but are not limited to, the Health and Safety in Employment Act 1992.
- 5 People who are registered as physically disabled may achieve this unit standard with exemption from the requirements of outcome 1 only.

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## Outcomes and performance criteria

### Outcome 1

Set up the assembly environment.

#### Performance criteria

- 1.1 The selection of assembly jigs, tools and components matches the job instructions.
- 1.2 The workplace layout conforms to enterprise safety standards and presents no uncontrolled hazards to any person.

### Outcome 2

Assemble electronic products.

#### Performance criteria

- 2.1 The assembly sequence complies with the job instructions.
- 2.2 Product assembly and component integrity are not affected by setup or handling operations.
- Range** integrity includes – fit, finish, electrostatic discharge (ESD), other specified build requirements.
- 2.3 All assembly operations are completed to industry quality standards, and may include the use of specified jigs, tools, and equipment.
- Range** IPC standards, or equivalent, for mounting, fastening and interconnection of components.
- 2.4 Completed product assemblies meet industry quality standards.
- Range** IPC standards, or equivalent, for component mounting, component fastening, component interconnection, solder joints.

**Outcome 3**

Check completed products.

**Performance criteria**

3.1 Checking confirms that quality of assembled products meet enterprise quality standards.

Range component mounting, fixture, interconnection, visual appearance.

**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	24 February 1998	31 December 2021
Review	2	28 June 1999	31 December 2021
Revision	3	3 April 2001	31 December 2021
Review	4	23 November 2003	31 December 2021
Rollover and Revision	5	19 March 2010	31 December 2021
Review	6	26 July 2018	31 December 2021

**Consent and Moderation Requirements (CMR) reference**

0003

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.