

Title	Assemble electronic components		
Level	3	Credits	15

Purpose	<p>This unit standard covers the assembling of electronic components or sub assemblies for use in final product assemblies elsewhere in the manufacturing process.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> –set up the assembly environment; –assemble electronic components; and –check completed electronic components.
----------------	---

Classification	Electronic Engineering > Electronic Manufacturing
-----------------------	---

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 **Definition**
electronic components includes magnetic or inductive components, sub assemblies, and cable harnesses, which are for use in product assembly elsewhere in the manufacturing process. Typical examples include power and signal coils, transformers, transducers, light electrical motors, terminated cable harnesses including radio frequency and fibre optic versions, and electronic sub assemblies.
- 2 For assembly of products refer to Unit 12577, *Assemble electronic products*.
- 3 **Range**
 - a evidence of at least two types of components is required;
 - b production of components should involve construction and assembly work, with some complex or critical assembly tasks;
 - c 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.
- 4 **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.

- 5 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.
- 6 People who are registered as physically disabled may achieve this unit standard with exemption from the requirements of outcome 1 only.

Outcomes and performance criteria

Outcome 1

Set up the assembly environment.

Performance criteria

- 1.1 The selection of assembly jigs, tools, components and materials 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 components.

Performance criteria

- 2.1 The assembly sequence complies with the job instructions.
- 2.2 Component assembly and material integrity is 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 use of specified jigs, tools, and equipment.
- Range** IPC standards, or equivalent, for construction, mounting, positioning of components and materials.
- 2.4 Completed electronic components meet industry quality standards.
- Range** IPC standards, or equivalent, for construction, mounting, fixture.

Outcome 3

Check completed electronic components.

Performance criteria

3.1 Checking confirms that quality of the component meets enterprise quality standards.

Range construction, assembly, 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>.