



Careers in manufacturing: electrical and electronics

Electrical engineering

Electrical engineering is the branch of engineering that deals with the design, development, testing or supervising of the manufacturing and installation of electrical equipment, components or systems for commercial, industrial, military or scientific use.

Occupations within the electrical engineering sector include:

- Electrician
- Electrical engineering draftsman
- Electrical engineering technician
- Electrical engineer.

Electrician

Electricians design, assemble, install, test, commission, diagnose, maintain and repair electrical networks, systems, circuits, equipment, components, appliances and facilities for industrial, commercial and domestic purposes, and service and repair lifts, escalators and related equipment.

Relevant qualifications:

- Certificate III in Engineering – Electrical/Electronic Trade
- Certificate IV in Engineering

Electrical engineering draftsman

An electrical engineering draftsman prepares detailed drawings and plans of electrical installations and circuitry in support of electrical engineers and engineering technologists. Registration or licensing may be required. For engineering/manufacturing employees performing production work, the relevant qualification is:

Specialisations:

- Electrical engineering design draftsman
- Electrical engineering detail draftsman
- Electrical engineering drafting officer
- Relays draftsman
- Substation design draftsman

Relevant qualifications:

- Diploma of Engineering (Advanced Trade)
- Advanced Diploma of Engineering

Electrical engineering technician

An electrical engineering technician conducts tests of electrical systems, prepares charts and tabulations, and assists in estimating costs in support of electrical engineers and engineering technologists. Registration or licensing may be required.

Specialisations:

- Electrical engineering laboratory technician
- Electrical instrument technician

Relevant qualifications:

- Diploma of Engineering (Advanced Trade)
- Advanced Diploma of Engineering

Electrical engineer

Electrical engineers design, develop and supervise the manufacture, installation, operation and maintenance of equipment, machines and systems for the generation, distribution, utilisation and control of electric power.

Relevant qualification:

- Degree

This information sheet has been produced with assistance from the Australian Government.

