



# Careers in manufacturing: electrical and electronics

## Instrument fitting

This information sheet covers the following occupations within the instrument fitting area:

- Instrument fitter
- Instrumentation tradesperson

### Instrument fitter

Instrument fitters assemble and install precise instruments that measure, indicate, transmit, record and control. Instruments are used widely in all areas of manufacturing across a range of sectors.

Instrumentation may include weighing or analysis devices, process control systems, and scientific or laboratory equipment.

Instrument fitters may:

- fit and assemble instrument parts, such as circuit boards, power supplies and control units, springs, bearings, lenses and glass faces
- check instruments for accuracy and calibrate (to manufacturers' specifications) using standard weights and measures, pneumatic, electrical and electronic test equipment and small hand tools
- install industrial instruments and equipment, such as control panels, sensors, transmitters and controllers, meters and fixed cameras, if an appropriate licence is held
- dismantle and re-assemble delicate mechanisms or electronic circuits

- overhaul instrument systems and repair or replace faulty parts using power tools and small hand tools
- check performance using testing and measuring instruments and make necessary adjustments
- set up computers and control equipment
- interface computers to control systems and check the operation of these systems.

Experienced instrument fitters may work with scientists to design, manufacture or modify laboratory equipment.

### Relevant qualification:

- Certificate III in Engineering – Electrical/Electronic Trade

### Instrumentation tradesperson

Instrumentation tradespersons install, modify, maintain and repair instrumentation used in measurement and control systems. These instruments measure and control temperature, pressure and flow in processes used in industries such as petro-chemical, mining, food and manufacturing.

Instrumentation tradespeople may perform the following tasks:

- install electronic instruments and control systems

- examine and test faulty electronic instruments and control systems to identify faults
- undertake calibration and make sure there is correct operation of instrumentation equipment
- repair and maintain electronic instruments and control systems.

## **Relevant qualifications:**

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

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

