



Australian Government

UEEEEC0011 Design and develop electronics/computer systems projects

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to design and develop an electronics/computer system project.

It includes working safely; and designing, constructing, recording, evaluating and reporting of an electronics/computer system design project.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable

Competency Field

Electronics and Communications

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Identify electronics/computer system project requirements

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) processes and workplace procedures for a given work area are identified, obtained and applied
- 1.2** Hazards are identified, WHS/OHS risks are assessed,

	control measures and workplace procedures are implemented in preparation for work
1.3	Scope of proposed project design/development work is determined from design brief in consultation with appropriate person/s
1.4	Project work is planned to meet scheduled timelines in consultation with others involved on the worksite
1.5	Resources required for work are selected based on compatibility with project requirements and budget constraints
1.6	Tools, equipment and testing devices needed to carry out work are obtained and checked for correct operation and safety
2 Design and develop electronics/computer system	2.1 WHS/OHS risk control work measures and workplace procedures are followed
	2.2 Electronics/computer devices and systems and industry standards are applied to the design specifications
	2.3 Alternative designs are considered based on the design brief
	2.4 Safety, functional and budget considerations are incorporated in the design
	2.5 Electronic/computer hardware and/or software systems are constructed and tested for compliance with design brief and regulatory requirements
	2.6 Electronic/computer faults are rectified and retested to ensure effective operation of design
	2.7 Project design specifications are documented for submission to appropriate person/s for approval
	2.8 Solutions to unplanned situations are implemented in accordance with workplace policy
3 Obtain approval for electronics/computer system	3.1 Electronic/computer system design is presented and explained to client representative and/or relevant person/s
	3.2 Modifications to design are negotiated with relevant person/s within the constraints of workplace policy

- 3.3 Final project design is documented and approval obtained from appropriate person/s
- 3.4 Quality of work is monitored against performance agreement and/or workplace or industry standards

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Designing and developing a medium-sized electronics/computer systems project includes designing, modifying, installing and applying the following:

- at least four digital and four analogue inputs and outputs (I/O), and at least one human-machine interface (HMI)

Unit Mapping Information

This unit replaces and is equivalent to UEENEEH188A Design and develop electronics - computer systems projects.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>