



Australian Government

Assessment Requirements for UEEIC0010 Develop and test code for microcontroller devices

Release: 1

Assessment Requirements for UEEIC0010 Develop and test code for microcontroller devices

Modification History

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

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - workplace procedures and practices
 - using of risk control measures
- developing and testing structured programming instructions for microcontroller device
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- developing testing procedures/protocols
- identifying problems and bugs/faults in program
- rectifying problems and bugs/faults in program in accordance with workplace procedures
- using all key features of an appropriate assembler language
- writing and presenting work reports to relevant industry standards and protocols.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- fundamental structured programming instructions for microcontroller device
- memory organisation, operation and addressing methods
- microcontroller architecture
- microcontroller control system programming methods
- microcontroller devices testing protocols
- microcontroller programmer's model
- microcontroller programming terms
- relevant industry programming standards, environment and protocols
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications

- relevant programming language fundamentals
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in suitable simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, facilities and equipment currently used in industry
- resources that reflect current industry practices in relation to developing and testing code for microcontroller devices
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

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