



Australian Government

Assessment Requirements for ICTIOT502 Program IoT devices

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 6.0.

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- research, select and program at least one IoT device for at least two different environmental conditions.

In the course of the above, the candidate must:

- test IoT device function and environmental variables
- document programming processes and outcomes.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- language used to program IoT devices
- laboratory tools including:
 - power supply
 - silla scope
 - spectrum analyser
 - signal generator
- schematic drawing documentation and reading tools
- principles of electricity, energy and electricity usage, as they relate to IoT devices
- principles and functions of sensors and wireless communication
- uses and features of microcontroller programming, microprocessors and microcontrollers
- basic principles of soldering and manufacturing processes and related electrical circuits
- basic mathematical equations, algebra, signal processing and statistics concepts and procedures
- operational procedures and safety checks for using power usage instruments
- different environments, contexts and its impact where IoT devices are used

- readings and standards of workplace electrical equipment range
- testing and troubleshooting methodologies and techniques.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- tools, equipment, materials, hardware required to program IoT devices
- microcontroller and required text editor software
- technical and manufacturer documentation
- environment with different factors applicable for IoT use.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>