



Australian Government

UEEIC0024 Plan the electrical installation of integrated systems

Release: 1

UEEIC0024 Plan the electrical installation of integrated systems

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 plan the electrical installation of integrated system.

It includes implementing integrated system scenario and installation by determining bus system parameters, topology and installation requirements, bus system cables and terminations, control and dimming methods; and planning and documenting integrated installation plan.

A network topology is the arrangement of a network, including its nodes and connecting lines. In a bus network topology, every workstation is connected to a main cable called the bus.

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

Pre-requisite Unit

Where prerequisite pathways have been identified, all competencies in the Common Unit Group must be have been completed plus all the competencies in one (1) of the identified Pathway Unit Group(s)

Common Unit Group

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

Electrotechnology Pathway Group

UEECD0025 Lay wiring/cabbling and terminate accessories for extra-low voltage (ELV) circuits

Electrical Pathway Group

UEEEL0023 Terminate cables, cords and accessories for low voltage circuits

Competency Field

Instrumentation & Control

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Determine integrated system scenario

PERFORMANCE CRITERIA

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

- 1.1 Customer requirements for scenes, events and controls in an integrated system are determined from job specifications and appropriate person/s
 - 1.2 Types and locations of integrated system loads are determined from job specifications and customer requirements
 - 1.3 Types and locations of control (input) devices of integrated system are determined from job specifications and customer requirements
 - 1.4 Budget for the integrated system is determined from customer and appropriate person/s
- #### 2 Plan integrated system
- 2.1 Hazards are identified, risks assessed and control measures implemented
 - 2.2 Integrated system devices and capabilities are incorporated the system plan
 - 2.3 Number and types of output devices to meet scenario specified are chosen for compatibility with system loads
 - 2.4 Number and types of control (input) devices to meet system scenario specified are obtained
 - 2.5 Integrated systems are planned to comply with bus system and supply voltage parameters in accordance with job specifications
 - 2.6 Other control methods are considered in developing an integrated system plan in accordance with workplace procedures
 - 2.7 Integrated systems are planned within cost and budget constraints

- 2.8** Final plan is documented and submitted to appropriate person/s for approval in accordance with workplace procedures
- 3 Implement integrated system installation**
- 3.1** Work health and safety (WHS)/occupational health and safety (OHS) risk control work measures and workplace procedures are followed
- 3.2** Integrated system is arranged using appropriate topology in accordance with workplace procedures
- 3.3** Connection chart/diagram between devices in the integrated system is developed in accordance with workplace procedures
- 3.4** Appropriate cable for the bus system is selected and connected at devices and accessories using the methods and the polarity specified by manufacturer specifications

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.

Electrical installation of integrated systems must include the following:

- three integrated systems one of which has at least four separate scenes and five control requirements

Documentation must include the following:

- explanations of how the customer requirement will be achieved
- a material list with costs and a marked-up floor plan showing relationship of load groups to input device/s

Unit Mapping Information

This unit replaces and is equivalent to UEENEEI140A Plan the electrical installation of integrated systems.

Links

Companion Volume implementation guides are found in VETNet - -

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