



Australian Government

Assessment Requirements for ICPPTD302 Set up and produce 3D prints

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICP Printing and Graphic Arts Training Package Version 3.0.

Performance Evidence

The candidate must demonstrate they can perform the following according to the standards defined in the elements, performance criteria and foundation skills of this unit.

The candidate must demonstrate the ability to produce at least two 3D prints in accordance with work health and safety requirements and workplace procedures to meet required outcomes. This includes demonstrating the ability to:

- communicate with client to identify needs
- interpret specifications and confirm client requirements for a three-dimensional (3D) printed object
- prepare data files, printer and materials to suit the requirements of print job
- prepare, operate and shut down a 3D printer according to manufacturer and organisational requirements.

Knowledge Evidence

The candidate must be able to demonstrate the following knowledge to effectively complete the tasks outlined in the elements and performance criteria of this unit, and to manage tasks in the context of the work role:

- features of common 3D printers including:
 - files types used
 - level of precision
 - basic operation
 - common applications
 - hazards associated with use
 - construction materials
 - printing technologies
- features of common materials for 3D prints including:
 - properties
 - performance

- durability
- cost
- required processing time
- post processing required
- colour quality
- types of post processing including:
 - curing
 - sanding
 - spray painting
 - gluing
 - assembling
 - inserting threads
- the impact that the file type and graphics quality has on the output of the printed object
- printer parameters including:
 - scale and build platform size
 - number of models to output
 - print speed
- work health and safety (WHS) considerations for consumables used in current 3D printers
- work health and safety (WHS) requirements for working with technologies currently used for 3D printing
- purpose and process for using and safely removing structure supports in 3D printing
- steps in cleaning a 3D object
- intellectual property and copyright laws and requirements in relation to 3D printing.
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Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the printing and graphic arts field of work and include access to:

- a 3D printer
- organisational and manufacturer operating procedures
- 3D printer ready files
- consumables necessary to print 3D models
- relevant personal protective equipment (PPE).

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 Guides are available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a74b7a0f-a253-47e3-8be0-5d426e24131d>