

[te4c. T Level in Design and Development for Engineering and Manufacturing](#)

The Progression Profile

This T Level has four occupational specialisms: Mechanical Engineering Occupational Specialism; Electrical and Electronic Engineering Occupational Specialism; Control and Instrumentation Engineering Occupational Specialism; and Structural Engineering Occupational Specialism.

For these occupational specialisms, there are progression pathways into apprenticeships, education and work.

The T Level is based on an occupational standard. The occupational standard will have an apprenticeship option, which is referred to in the profile as the 'relevant apprenticeship'.

For some apprenticeships, in particular the relevant occupation, a learner may have covered the content to a high level. They will not need to complete the apprenticeship in this step, this is noted as 'not applicable'. An apprenticeship may also be shortened due to recognised prior learning (RPL), this is noted as accelerated. Links to the mapping have been included which detail the areas in need of further development before full competence is reached in that occupation.

For work, whilst some roles may be accessed after completing the T Level, others are available after further training and gaining more experience.

Please see below, the progression options for each occupational specialism.

1. Mechanical Engineering Occupational Specialism

For apprenticeships and technical qualifications at level 3, the relevant occupation is [Engineering Design and Draughtsperson \(accelerated\)](#).

At level 4, there is the [Engineering manufacturing technician](#) apprenticeship and [Engineering manufacturing technician](#) HTQ

At level 6, there is the [Electro-mechanical engineer](#) and [Product Design and Development Engineer](#) (being revised) apprenticeships.

At level 7, there is the [Geotechnical engineer](#), [Postgraduate engineer](#) and [Systems engineer](#) apprenticeships.

Other progression options may include Entrepreneurship, Robotics, Climate Change/Green Skills, Civil Engineering, Business and Digital.

For **education**, degree options may include Aerospace Engineering, Electrical and Electronic Engineering, Medical Engineering Technologies and Mechanical Engineering.

For **work**, career progression could include Mechanical Engineer, Design Engineer, Manufacturing Technician, Electro-mechanical engineer and Geotechnical engineer.

2. Electrical and Electronic Engineering Occupational Specialism

For apprenticeships and technical qualifications at level 3, the relevant occupation is [Engineering Design and Draughtsperson \(accelerated\)](#).

At level 4, there is the [Engineering manufacturing technician](#) apprenticeship and [Engineering manufacturing technician](#) HTQ.

At level 6, there is the [Electro-mechanical engineer](#), [Product Design and Development Engineer](#) (being revised) and [Embedded electronic systems design and development engineer](#) apprenticeships.

At level 7, there is the [Electronic systems principal engineer](#), [Postgraduate engineer](#) and [Systems engineer](#) apprenticeships.

For **education**, degree options may include Aerospace Engineering, Electrical and Electronic Engineering, Medical Engineering Technologies and Mechanical Engineering.

For **work**, career progression could include Software Technician, Electrical Engineer, Junior Design Engineer, Validation Engineer and Manufacturing Technician.

3. Control and Instrumentation Engineering Occupational Specialism

For apprenticeships and technical qualifications at level 3, the relevant occupation is [Engineering Design and Draughtsperson \(accelerated\)](#).

At level 4, there is the [Engineering manufacturing technician](#) apprenticeship and [Engineering manufacturing technician](#) HTQ.

At level 6, there is [Electro-mechanical engineer](#) apprenticeship.

Other progression options may include Robotics, Climate Change/Green Skills, Civil Engineering, Business and Digital.

For **education**, degree options may include Aerospace Engineering, Electrical and Electronic Engineering, Medical Engineering Technologies and Mechanical Engineering.

For **work**, career progression could include Instrument Engineer, Costing engineer, Installation engineer, Manufacturing engineer quality and Production Support Engineer.

4. Structural Engineering Occupational Specialism

For apprenticeships and technical qualifications at level 3, the relevant occupation is [Engineering Design and Draughtsperson \(accelerated\)](#).

At level 4, there is the [Engineering manufacturing technician](#) apprenticeship and [Engineering manufacturing technician](#) HTQ. In addition to the [Automation and Controls Engineering Technician](#) apprenticeship and Automation and [Controls Engineering Technician](#) HTQ

At level 6, there [Electro-mechanical engineer](#) and [Science Industry Process and Plant Engineer \(degree\)](#) apprenticeships.

For **education**, degree options may include Aerospace Engineering, Electrical and Electronic Engineering, Medical Engineering Technologies and Mechanical Engineering.

For **work**, career progression could include Structural Design and Draughtsperson, Costing engineer, Design engineer, Electrical Engineer and Instrument Engineer.

T LEVEL IN DESIGN AND DEVELOPMENT FOR ENGINEERING AND MANUFACTURING

(Accelerated) = May be shortened due to recognised prior learning (RPL)

Not applicable = The learner has covered the content to a high level and may bypass the apprenticeship in this step

In development = standard is being developed.

Under revision = standard is being revised.

A learner could potentially move across progression routes from the different OS's due to broad core content

T Level in Design and Development for Engineering and Manufacturing

1. Mechanical Engineering Occupational Specialism

Relevant Apprenticeship:
[Engineering Design and Draughtsperson](#)

Apprenticeships and technical qualifications

Level 3
[Engineering Design and Draughtsperson](#)
(Accelerated)

Level 4
[Engineering manufacturing technician](#)

Level 6
[Electro-mechanical engineer Product Design and Development Engineer](#) (being revised)

Level 7
[Geotechnical engineer](#)
[Postgraduate engineer](#)
[Systems engineer](#)

Education

Degree options may include:
Aerospace Engineering
Electrical and Electronic Engineering
Medical Engineering Technologies
Mechanical Engineering

Other progression options could include:

- Entrepreneurship
- Robotics
- Climate Change/Green Skills
- Civil Engineering
- Business
- Digital

Work

Career progression could include:
Mechanical Engineer
Design Engineer
Manufacturing Technician
Electro-mechanical engineer
Geotechnical engineer

2. Electrical and Electronic Engineering Occupational Specialism

Relevant Apprenticeship:
[Engineering Design and Draughtsperson](#)

Apprenticeships and technical qualifications

Level 3
[Engineering Design and Draughtsperson](#)
(Accelerated)

Level 4
[Engineering manufacturing technician](#)

Level 6
[Electro-mechanical engineer Product Design and Development Engineer](#) (being revised)
[Embedded electronic systems design and development engineer](#)

Level 7
[Electronic systems principal engineer](#)
[Postgraduate engineer](#)
[Systems engineer](#)

Education

Degree options may include:
Aerospace Engineering
Electrical and Electronic Engineering
Medical Engineering Technologies
Mechanical Engineering

Work

Career progression could include:
Software technician
Electrical Engineer
Junior Design Engineer
Validation Engineer
Manufacturing Technician

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