

Job of The Week

Mechanical Engineer

Key Skills

- Maths knowledge
- design skills and knowledge
- the ability to work well with others
- to be able to use a computer and the main software packages confidently
- knowledge of engineering science and technology
- to be thorough and pay attention to detail
- the ability to come up with new ways of doing things
- analytical thinking skills
- knowledge of physics

Salary
£26,000 - £52,000

Working hours
37 – 40 per week
evenings / weekends
on shifts

Aspire | Challenge | Achieve

Mechanical Engineer

University

You could do a higher national diploma or degree in:

- mechanical engineering
- electromechanical engineering
- mechatronics
- engineering manufacturing

The Engineering Council has information on accredited courses.

You should try to get some work experience during your course through:

- internships
- summer or Easter vacation schemes
- a placement year in industry
- a science, technology, engineering and Maths (STEM) ambassador scheme

This will help you to make contacts and pick up work skills that will be useful when you start applying for graduate jobs.

Entry requirements

You'll usually need 2 or 3 A levels, or equivalent, including Maths and physics

Work

You could start as a mechanical engineering technician and do further training on the job to qualify as an engineer.

College

You could complete a college course before going on to do a higher level engineering qualification or an apprenticeship.

Courses include:

- mechanical engineering
- mechanical engineering technology
- mechanical engineering - machine operations
- T Level in Maintenance, Installation and Repair for Engineering

Before you finish your course, you could apply for a paid work placement through the Engineering Development Trust, which offers a chance to use your engineering skills and improve your career prospects.

Entry requirements

Entry requirements for these courses vary. 4 or 5 GCSEs at grades 9 to 4 (A* to C), or equivalent, including English and Maths for a T Level

Apprenticeship

You could do an apprenticeship to become a mechanical engineer. These include:

- Manufacturing Engineer Level 6 Degree Apprenticeship
- Electro-Mechanical Engineer Level 6 Apprenticeship - leading to a professional qualification

Entry requirements

You'll usually need 4 or 5 GCSEs at grades 9 to 4 and A levels, or equivalent, for a degree apprenticeship



Career path and progression

You'll be able to use your skills in industries, like, manufacturing, construction, energy & utilities and transport.

With experience, you could move into senior project management roles, specialise in research and development or become an engineering consultant.

You could work towards chartered engineer status through the Institution of Mechanical Engineers. This would give you industry recognition of your skills and knowledge and open up more opportunities for career development.

Working in a university or teaching in further education are also options open to you.

Day to Day tasks

As a mechanical engineer, you could:

- turn research ideas into technical plans, using computer aided design software
- test mechanical systems and analyse data to make improvements
- assess the safety of mechanical machinery and equipment
- oversee maintenance programmes in buildings, power stations and production plants
- manage a project team of technicians, designers and other engineering professionals

Working conditions

You could work in an office, in a factory or visit sites.

Your working environment may be outdoors in all weathers.

Labour Market Information

In the Careers section of the school website you can find the useful comparison tool the 'Labour Market Information widget'.

Use the widget to compare different job roles in any employment sector or relating specifically to the 'Job of the Week'.

Mechanical engineers

Weekly Pay	Annual Pay
£920	£47,840
Hours/Week	Hourly Pay
38h	£24

Workforce Change (projected)

Growth	Replacement
2.4%	38.9%

The workforce is projected to grow by 2.4% over the period to 2027, creating 2,200 jobs. In the same period, 38.9% of the workforce is projected to retire, creating 36,000 job openings.

You might find this job in

Other trans. equipment
Architectural & related
Repair & installation
Construction
Head offices, etc

[More info](#)

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Engineering technicians

Weekly Pay	Annual Pay
£760	£39,520
Hours/Week	Hourly Pay
35h	£22

Workforce Change (projected)

Growth	Replacement
0.5%	43%

The workforce is projected to grow by 0.5% over the period to 2027, creating 500 jobs. In the same period, 43% of the workforce is projected to retire, creating 41,900 job openings.

You might find this job in

Specialised construction
Head offices, etc
Public admin. & defence
Metal products
Machinery, etc

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Vehicle technicians, mechanics and electricians

Weekly Pay	Annual Pay
£570	£29,640
Hours/Week	Hourly Pay
49h	£12

Workforce Change (projected)

Contraction	Replacement
-4.1%	52.7%

The workforce is projected to contract by -4.1% over the period to 2027, losing 7,700 jobs. In the same period, 52.7% of the workforce is projected to retire, creating 99,200 job openings.

You might find this job in

Sale of motor vehicles
Land transport, etc
Motor vehicles, etc
Postal, etc
Retail trade

[More info](#)

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Labour Market Information

Mechanical engineers

Mechanical engineers undertake research and design, direct the manufacture and manage the operation and maintenance of engines, machines, aircraft, vehicle and ships' structures, building services and other mechanical items.

Common tasks in this job:

- undertakes research and advises on energy use, materials handling, thermodynamic processes, fluid mechanics, vehicles and environmental controls;
- determines materials, equipment, piping, capacities, layout of plant or system and specification for manufacture;
- designs mechanical equipment, such as steam, internal combustion and other non-electrical motors for railway locomotives, road vehicles, aeroplanes and other machinery;
- ensures that equipment, operation and maintenance comply with design specifications and safety standards;

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Engineering technicians

Engineering technicians perform a variety of technical support functions to assist engineers with the design, development, operation, installation and maintenance of engineering systems and constructions.

Common tasks in this job:

- plans and prepares work and test schedules based on specifications and drawings;
- sets up equipment, undertakes tests, takes readings, performs calculations and records and interprets data;
- prepares estimates of materials, equipment and labour required for engineering projects;
- diagnoses and detects faults and implements procedures to maintain efficient operation of systems and equipment;

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Vehicle technicians, mechanics and electricians

Vehicle technicians, mechanics and electricians accept calls for help and repair and service the mechanical parts and electrical/electronic circuitry and components of cars, lorries, buses, motorcycles and other motor vehicles, and repair and service auto air-conditioning systems.

Common tasks in this job:

- visually checks, test drives or uses test equipment to diagnose engine and mechanical faults;
- removes, dismantles, repairs and replaces defective parts and prepares new parts using appropriate tools;
- reassembles, tests, adjusts and tunes the appropriate parts, systems or entire engine;
- carries out routine maintenance checks on oil and air filters, brakes and other vehicle parts/systems;

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Keep looking...

Use these links to learn more about our Job of The Week, consider the various pathways leading to the career, what you can be doing now to help yourself and other roles in the industry...

Take a look at these short videos for inspiration...

A day in the life: Mechanical Engineering



<https://www.youtube.com/watch?v=K6j6d2k4Gpk&pp=ygUxQSBkYXkgaW4gdGhlIGxpZmU6IE1Y2hhbmliYWwgRW5naW5lZXIpbmcmc2FsZm9yZA%3D%3D>

Day at Work: Mechanical Engineer



<https://www.youtube.com/watch?v=ocqceS7KlZE&pp=ygUtbWVjaGFuaWNhbCBlbmdpbmVlcg%3D%3D>

Royal Electrical & Mechanical Engineers (REME)



https://www.youtube.com/watch?v=jGASYM_yhxw&pp=ygUYXXJteSBtZWNoYW5pY2FsIGVvZ2luZWVv

What's it like to be a Mechanical Engineer in Australia?



<https://www.youtube.com/watch?v=z90UurwSc96Q&pp=ygUlam9lcyB0aGF0IHJlcXVpcmUgbWVjaGFuaWNhbCBlbmdpbmVlcg%3D%3D>

Useful Websites

[Mechanical engineer | Explore careers | National Careers Service](#)

[Mechanical Engineering Subject Guide | Why Study Engineering? | UCAS](#)

[Royal Electrical and Mechanical Engineers - British Army Jobs \(mod.uk\)](#)

[A day in the life of... Tom Canneaux, mechanical engineer | Careers at SNC-Lavalin, Atkins, Faithful + Gould](#)