

# **JOB** of the Week



#### Job name: Robotics Engineer

**Job description:** Robotics Engineers Robotics engineers design and build machines to do automated jobs in industries like manufacturing, aerospace and medicine.

Tasks you will undertake in the job: Your exact duties will depend on what part of a project you work on. You could:

- research what customers want to automate
- design processes and parts using computer aided design
- build and test prototypes
- analyse data from robot sensors and cameras
- write technical reports on project progress, risks and issues
- find and fix faults
- research news ways to use robots and artificial intelligence
- demonstrate finished products to customers

#### Career path and progression

You could become a lead engineer, with overall responsibility for managing a project.

You could also specialise in a particular area of robotics, for example self-driving vehicles, space exploration, surgical instruments or deep ocean research.



# Skills required for this job (core competencies):

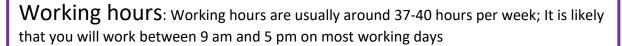
Communication	Resilience	Organisation	Teamwork
Problem Solving	Initiative	Creativity	Digital literacy

## A Day in the Life of a Robotics Engineer:

https://www.youtube.com/watch?v=3v9rmNBmvLM

Watch the video of the University of Bristol & Bristol Robotics Lab

**Salary:** Robotics Engineers are typically paid a starting wage of £27 500, this increases with experience; experienced Robotics Engineers can expect to earn approximately £55 000





### Qualifications to become a Robotics Engineer:

You can get into this job through: a university course; a college course; an apprenticeship and working towards this role

**University**: You can do a degree or postgraduate qualification in: artificial intelligence and robotics; mechatronics; robotics engineering; mechanical engineering; electronics engineering; computer science and mathematics. You can also work in the development of artificial intelligence if you have a qualification in psychology or cognitive science. Entry requirements. You'll usually need: 2 or 3 A levels, or equivalent, including maths and physics; a degree in a relevant subject for postgraduate study

**College**: You can do a college course, which may help you to find a job as a robotics technician. Relevant courses include: Level 3 Certificate in Robotics and Automation; Level 4 Diploma in Computing; Higher National Certificate in Electrical or Electronic Engineering. With further training, you can qualify as an engineer. Entry requirements. You'll usually need: 4 or 5 GCSEs at grades 9 to 4 (A\* to C), or equivalent, for a level 3 course; 1 or 2 A levels, a level 3 diploma or relevant experience for a level 4 or level 5 course

**Apprenticeship**: You could do a degree apprenticeship in a robotics specialism. Apprenticeship examples include: control and technical support engineering; software development; manufacturing engineering; embedded electronic systems design; electro-mechanical engineering. Entry requirements:4 or 5 GCSEs at grades 9 to 4 (A\* to C) and A levels, or equivalent, for a degree apprenticeship

Work: You could start as a robotics technician or junior engineer and study for a degree on the job to qualify.

**Essential skills you need to show:** To succeed as a Robotics Engineer, the following personal skills and attributes would give you an advantage:

- knowledge of engineering science and technology; computer operating systems, hardware and software
- maths knowledge; design skills and knowledge
- excellent verbal communication skills
- the ability to use, repair and maintain machines and tools
- thinking and reasoning skills; complex problem-solving skills
- to be able to use a computer and the main software packages confidently

This job in the future: The workforce is projected to grow by 4.2% over the period to 2027, creating 3,400 jobs. In the same period, 39.6% of the workforce is projected to retire, creating 32,300 job openings.

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www.successatschool.org

www.nationalcareers.service.gov.uk

www.prospects.ac.uk/jobs-and-work-experience/job-sectors

www.ucas.com/careers-advice

www.kudos/cascaid.co.uk/#/ (you all have a log on for this service)

www.careersbox.co.uk (careers videos)

Kudos 🔘













Helpful sites for careers information
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