**Job title: Robotics Engineer**

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| **Job title: Robotics Engineer** | Robotics engineers design and build machines to do automated jobs in industries like manufacturing, aerospace and medicine. |
| **Entry requirements:** | You can do a degree or postgraduate qualification in:   * artificial intelligence and robotics * mechatronics * robotics engineering * mechanical engineering * electronics engineering * computer science * 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, including maths and physics * a degree in a relevant subject for postgraduate study   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) 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   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   **Entry requirements**  You'll usually need:   * 4 or 5 GCSEs at grades 9 to 4 (A\* to C) and college qualifications like A levels for a degree apprenticeship |
| **Skills required:** | You'll need:   * knowledge of engineering science and technology * knowledge of 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 |
| **What you'll do:** | Your exact duties will depend on what part of a project you work on but may include:   * understanding what customers want to automate * designing processes and parts using computer aided design * building and testing prototypes * analysing data from robot sensors and cameras * finding and fixing faults * researching news ways to use robots and artificial intelligence * demonstrating finished products to customers |
| **What you’ll earn:** | * Starter: £27,500 * Experienced: £55,500 *These figures are a guide.* |
| **Working hours, patterns and environment:** | * 37 to 40 hours a week, usually 9am to 5pm. |
| **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. |