# Image result for design and development engineer**Job title: Design and development engineer**

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| **Job title: Design and development engineer** | Design engineers improve product performance and efficiency while researching and developing new manufacturing ideas and systems. |
| **Entry requirements:**  | You'll normally need a foundation degree, higher national diploma or degree to become a design engineer.You could choose from subjects like:* engineering product design
* industrial design
* computer-aided design engineering
* engineering design and manufacture
* materials science
* Mechanical, electrical and civil engineering qualifications may also be acceptable to employers.

Entry requirementsYou'll usually need:* 1 or 2 A levels for a foundation degree or higher national diploma
* 2 to 3 A levels for a degree

You may be able to start by taking a product design and development engineer degree apprenticeship.Entry requirementsYou'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
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| **Skills required:**  | You'll need:* design skills and knowledge
* knowledge of engineering science and technology
* the ability to come up with new ways of doing things
* to be thorough and pay attention to detail
* analytical thinking skills
* persistence and determination
* the ability to use, repair and maintain machines and tools
* thinking and reasoning skills
* to be able to use a computer and the main software packages competently
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| **What you'll do:**  | Your day-to-day duties would depend on the project, but could include:* research (using mathematical modelling to work through new developments and innovations)
* design (turning research ideas into technical plans for prototypes using computer-aided design (CAD) and computer-assisted engineering (CAE) software)
* testing (collecting and analysing data from prototype testing)
* modifying designs (ahead of manufacture or installation)
* reporting (writing or presenting to project managers and clients)
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| **What you’ll earn:**  | * Starter: £20,000
* Experienced: £55,000

*These figures are a guide.* |
| **Working hours, patterns and environment:** | * You could work in an office
* 38 to 40 hours a week usually between 8am and 6pm
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| **Career path and progression:** | You can work in industries from construction and engineering to electronics and renewable energy. You can progress your career by working towards incorporated or chartered engineer status and registering with an industry body. |