



## WEEKLY OPPORTUNITIES NEWSLETTER

YEAR 9

w/c 20th February 2023



Dear Student/Parent/Carer,  
**Recording interactions on Unifrog**

Could you let Mrs Farmer know if you take part in any virtual or in person opportunities advertised in this Newsletter please? It is important that young people keep an electronic record of all the interactions you have with Further Education, Higher Education and employers. Please email [ffarmer@toothillschool.co.uk](mailto:ffarmer@toothillschool.co.uk) with the date of the activity and the name of the activity.

Enjoy

The Toot Hill Careers Team

Use the Contents section to skip to the information relevant for you. You can use the 'Back to Top' button to get back to this Contents section.

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## Career Of The Week

### Electronics engineer



#### What you'll do

You could research, design and develop electronic components and equipment in a range of industries, for example:

- telecommunications – mobile phones, radio, TV and satellite communications
- data communications – PCs, tablets and cashpoints
- scientific research – acoustics, optics, physics and nanotechnology
- medical instruments – clinical and laboratory equipment
- defence – communications, navigation and weapons systems
- aerospace – avionics, radar, navigation and communication systems
- manufacturing – programmable logic controls (PLCs) and industrial machinery

Your day-to-day duties will include:

- assessing new developments or innovations
- preparing technical plans using computer-aided engineering and design software
- estimating manufacturing and labour costs, and project timescales
- co-ordinating the work of technicians and craftspeople
- testing prototypes and analysing data
- making sure projects meet safety regulations
- planning and overseeing inspection and maintenance

You'll often work on a project with a team of engineers, technicians and IT staff. You'll follow electrical health and safety regulations.

Record relevant activities you've already done on the [Activities tool](#)

### **Working hours and environment**

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You'll usually work around 40 hours a week. You may work longer to meet project deadlines.

You'll usually work in an office or a lab. You may work in factories, workshops or outdoors.

### **Career path and progression**

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With incorporated or chartered engineer status you could:

- move into project management roles
- specialise in research, such as telecommunications, robotics or semiconductors
- work as an engineering consultant

You could also move into patent law.

### **Skills required**

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You'll need:

- maths skills
- IT skills to use computer-aided design software
- the ability to analyse problems
- organisational skills
- budgeting skills

Got evidence of these skills? Record your examples on the [Skills tool](#)

### **Entry requirements**

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You'll usually need a foundation degree, HND or degree in electronic or electrical engineering, or engineering technology.

Employers may accept qualifications in related subjects like physics, maths or computer science. See the [Institution of Engineering and Technology](#) (IET) for courses.

You could get into this job through an [apprenticeship](#).

### Related Know-how guides

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Explore Know-how guides related to this career:

- [Get on the ladder: engineering](#)
- [Career specialisms: engineering](#)

### Related university subject profiles

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These university subjects are related to this career; check out their profiles on the Subjects library:

- [Electronic and Electrical engineering](#)
- [General engineering](#)
- [Physics](#)

### Related career profiles

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You may also be interested in:

- [Materials engineer](#)
- [Electrical engineer](#)
- [Aerospace engineer](#)
- [Broadcast engineer](#)

### Explore

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Want to see what relevant education and training opportunities are available right now? Search here:

#### Electronic and Electrical engineering at uni:

[USA](#) [UK](#) [Canada](#) [Europe](#) [Asia](#) [Australasia](#) [Ireland](#)

#### General engineering at uni:

[USA](#) [UK](#) [Canada](#) [Europe](#) [Asia](#) [Australasia](#) [Ireland](#)

#### Physics at uni:

[USA](#) [UK](#) [Canada](#) [Europe](#) [Asia](#) [Australasia](#) [Ireland](#)

#### Apprenticeships:

[UK](#)

#### College / Sixth Form:

[UK](#)

# Labour Market Information (LMI)

## UK Current Jobs

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### Engineering professionals (SOC3)

UK jobs: 383,043

Nottinghamshire jobs: 5,727 (15th of 214 UK LEAs)

Top 5 LEAs: Hampshire (11,941), Lancashire (9,111), Essex (8,415), Surrey (8,334), Hertfordshire (8,186)

## UK Salary

### Electronics engineers (SOC4)

UK annual median: £49,087

### Engineering professionals (SOC3)

UK annual median: £43,829

East Midlands annual median: £40,796

Top 3 regions: London (£48,464), Scotland (£46,458), East of England (£45,443)

## UK Prospects

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### Science, research, engineering and technology professionals (SOC2)

UK growth: +9.1% from 2017 to 2027, creating 159,466 jobs

East Midlands growth: +10.7% from 2017 to 2027, creating 12,438 jobs

## Subject of the week

# PHYSICS

### Interesting Facts


Time goes faster at the top of the building than at the bottom. According to Einstein's theory of Relativity, the farther an object is from the Earth's surface, the faster time passes.

You can't sink in the Dead Sea. The Dead Sea has a very high density because of its salt content, which would make it impossible for you to sink.

**Exams:** physics is 100% examination, 3 exams with a mix of multiple choice, written and practical questions.

**Careers:**  
If you did physics at university you could become: an Astronomer, Clin scientist, Radiation protection practitioner, Research scientist and more

**Daring to know:**  
There are many books and documentaries you can read and watch which can extend your knowledge of physics outside of the curriculum such as: Brian Cox Life of a Universe, Forces of Nature and The Quantum Universe.



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## DIGIDATA - SHELL LIVE EVENT

We have created a marketing packs that contain a number of promotional assets for you to use both off and online for the live online career challenge event.

**Monday 27th February at 4.30pm - First Step [Shell live online career challenge](#)**

**The best way to predict the future is to create it!**

[Register to attend](#)

**Thursday 2nd March at 6.30pm - [Shell live online career panel](#)**

**We invite students, teachers, parents and career leaders to discover more about their career opportunities**

**If you have any comments or feedback on the Newsletters please email [ffarmer@toothillschool.co.uk](mailto:ffarmer@toothillschool.co.uk) and not reply to this email as these Newsletters are sent from a no reply email address.**

**Thank you**