

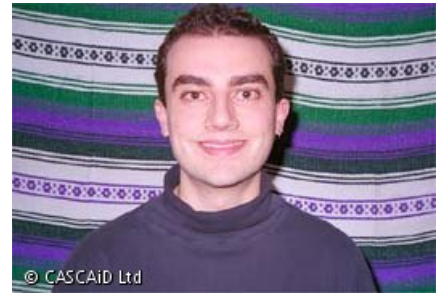
Case Study: Electronics Engineer - Ben

What do you do?

My company produces electronic components for aeroplanes and aerospace applications.

I make sure the company's designs and products meet strict safety standards. If I discover a problem, I do a number of tests to find out its cause.

I then make sure the necessary steps are taken to correct the problem. This might involve changing the part's design or the manufacturing process.



What is your background?

I studied electrical and electronic engineering at university. When I graduated from university, I worked mainly in design and development.

However, since then I have decided to focus more on quality control - that is, making sure that a manufacturing plant is producing output that measures up to a certain standard of quality.

What characteristics do you need to be successful in your job?

First, a good electronics engineer must be able to think logically. Engineering is all about problem solving. You must be able to apply problem-solving skills to mathematical problems, whether they are theoretical or practical.

Second, an electronics engineer must have the technical skills to do a good job. This means applying everything you learn in university to practical, everyday situations.

This involves using basic physics, an understanding of electrical circuitry and an understanding of technology in general.

Also, an electronics engineer must pay attention to detail. In this line of work, very small things can have very serious effects. A miscalculation can cause big mechanical problems and cost the company a lot of money.

What other jobs could you do using the skills from this job?

Because electronics engineers rely so much on computers as a standard tool of the industry, a natural route is to develop software for specific engineering projects.

Electronics engineers can also apply their skills to consulting or management positions in other engineering fields.

What changes will there be in the future?

I think that there will be more demand for electronics engineers in the future. As technology plays a larger part in our lives, the need for engineers will increase.

It's an engineer's job to simplify technology for the public, and with ever-increasing technological breakthroughs, our services will become increasingly necessary.

Are there many opportunities to enter this career?

There is a high level of demand in electrical and electronic engineering.

What do you like about your job?

The best part of being an engineer is solving problems. For instance, we had this product that was blowing up when it was being tested. I did tests and designed some experiments to work out what the problem was and then fixed it.

Another thing I really like is the constant learning. Every time you work on a new product or a new process, you're learning something new; it's great.

Also, you get to work with a lot of people. For instance, most of your work will be in teams with other engineers or marketing and sales people. And often you'll talk to customers who need your technical advice to help them solve their problems.

What do you dislike about your job?

I have very few dislikes about this career. Deadlines can be stressful but I generally enjoy the buzz that achieving results under pressure brings.

What advice would you give to someone interested in your career?

Maths and science knowledge and skills are essential, but don't neglect your communication skills, including your ability to write clear reports.

A day in the life

9:00 am - 10:00 am

Working on a project: designing, planning.

10:00 am - 11:00 am

Meeting with a manager to develop a new product proposal.

11:00 am - 12:00 pm

Working on the proposal: establishing feasibility, overall cost and manufacturing requirements.

12:00 pm - 1:00 pm

Having lunch.

1:00 pm - 2:00 pm

Investigating an urgent call about a problem on the production floor.

2:00 pm - 3:00 pm

Implementing a short-term solution to keep production going.

3:00 pm - 4:00 pm

Meeting with a salesman; deciding whether or not to buy a product for the company.

4:00 pm - 5:00 pm

Working on a production problem.