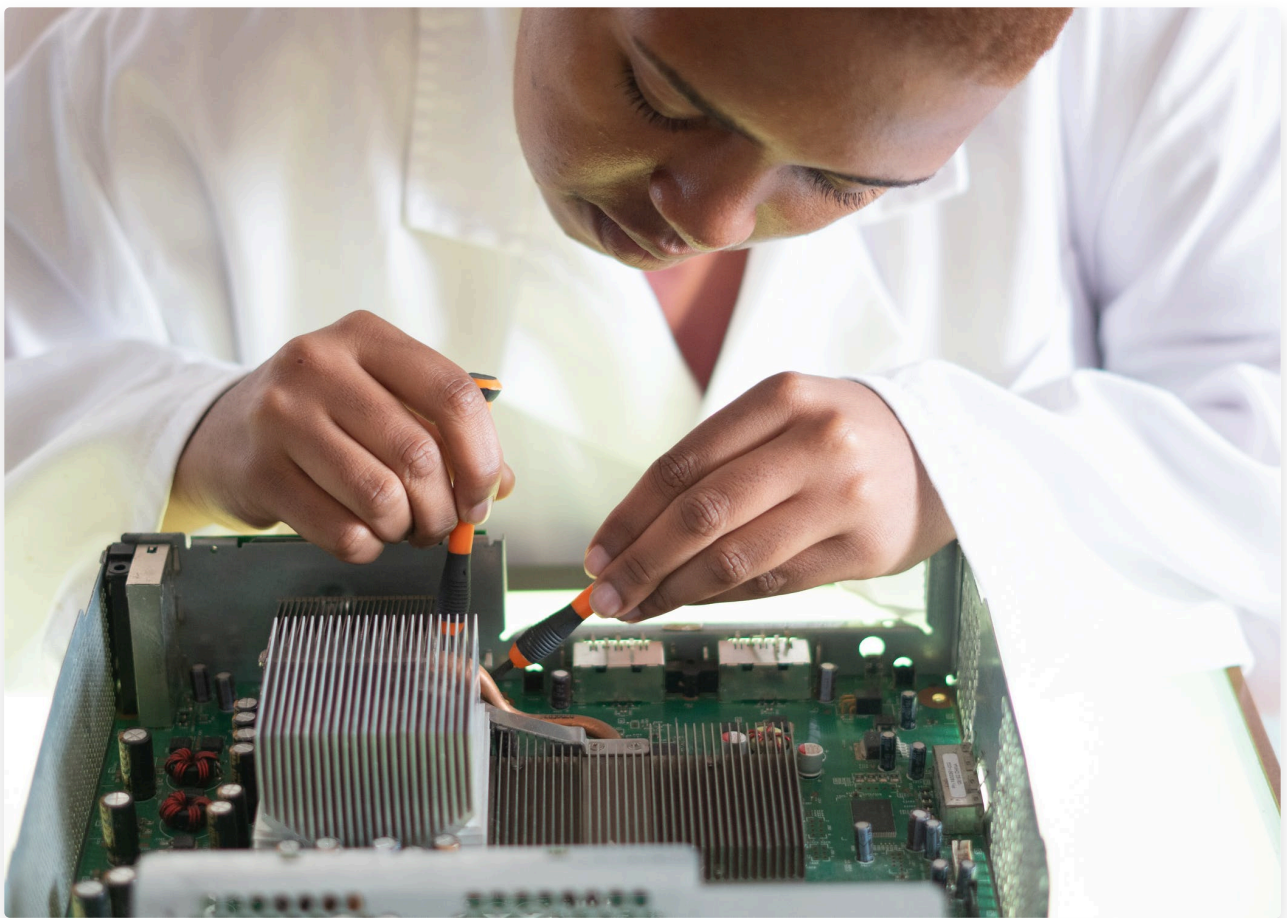


Hardware Engineer

Textbook

Hardware Engineer

Are you a curious person? Have you ever found yourself taking apart a fan or vacuum just to understand how it works? Perhaps you should look into hardware engineering!



What does a hardware engineer do?

Hardware engineers understand how all the hardware, or parts of a computer work together both inside and out to help it function. These engineers test hardware that already exists, like a computer's hard disk, monitor, processor, and more. Through testing the hardware, these engineers find bugs and updates that need to be made to ensure the hardware runs error-free. Upon finding these areas of improvement, hardware engineers design new hardware that will help the system run faster and smoother.

What is a typical day like?

Hardware engineers typically work in research labs or manufacturing companies where the hardware is made. They work on teams with other hardware engineers and also with software engineers, since they both develop products. After testing how a specific hardware works, hardware engineers will then create blueprints for new hardware designs, test models of these designs, and make updates where needed.

What kind of training or schooling is required?

Most places require a bachelor's degree in computer engineering in order to be a hardware engineer.

However, degrees in electrical engineering or computer science are also acceptable because of the similar content studied in each major. It is best to look for a program accredited by ABET (Accreditation Board for Engineering and Technology). It is also crucial throughout one's career to continue learning as there will constantly be new advancements in hardware technology that an engineer's work will center around.

Job and Salary Outlook

As of May 2020, there are over 66,000 jobs available in hardware engineering, and not enough engineers to fill the positions. By 2030, that number is only expected to grow by about 2%, which is lower than the average growth in most positions over 10 years. However, due to hardware engineers retiring or transitioning into different jobs, they expect there to be 4,500 more openings each year over the decade.

The salary for a hardware engineer can vary depending on where one works and their level of experience. As of May 2020, the Bureau of Labor Statistics reports the average salary for a hardware engineer being \$119, 560, which translates to \$57.48 per hour. Generally speaking, hardware engineers can earn anywhere from \$70,100 to \$192,110.

Common Soft Skills

Innovative

Good communication

Problem-solving skills

Questions (1)

1. Did you read the textbook?

MULTIPLE CHOICE

Choose the correct answer:

- A. Yes
- B. No

Answer Keys & Solutions

Questions

1. Did you read the textbook?

MULTIPLE CHOICE

Correct Answer:

A. Yes

✓ Correct

B. No

✗ Incorrect