Electronics Repair Technician Encyclopedia Article

Electronics Repair Technician

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Contents

Electronics Repair Technician Encyclopedia Article.....1

Contents.....2

Electronics Repair Technician.....3

Electronics Repair Technician

Modern life is powered by electricity, but electrical equipment sometimes breaks down. Electronics repair technicians can troubleshoot a piece of malfunctioning equipment and repair it. They can also test and maintain equipment to keep it from breaking down at all.

"Electronics" is a broad category, and electronics repair technicians find jobs in a number of settings and can pursue any range of specializations, including heating and air conditioning, home appliances, computers, and telecommunications, among others. Some electronics repair technicians even specialize in musical instruments such as electric guitars. While handson experience is important, most electronics repair technicians find that entry and advancement in the job market are easier if they have a strong math and science background in high school from classes such as physics, algebra, trigonometry, and calculus. It is also helpful to have a two-year degree in electronics technology from a community college or vocationaltechnical college. Such a program emphasizes not only electronics, but also applied mathematics and geometry. Although it is not mandatory, many pass an exam to be become certified.

Good electronics repair technicians have a firm grasp of the mathematics and physics of electricity. They have to measure and understand electrical charges, currents and amps, voltage, and resistance. They must be familiar with Ohm's law, which is the relationship between current, voltage, and resistance. An electronic repair technician should understand the structure and operation of electrical components, including resistors, capacitors, diodes, transistors, integrated circuits, and switches. In addition, they need to read and understand **schematic diagrams**, which visually present "outlines" of circuits, showing how electrical components connect.

Electronics repair technicians must be able to use mathematics to troubleshoot a wide range of problems.

See Also

Boole, George.

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