

# Electricians

SOC: 47-2111 • Career Profile Report

## ■ Key Facts

<b>\$62,350</b> Median Salary	<b>818,700</b> Employment	<b>+9.0%</b> Growth Rate
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## ■ Requirements & Salary Range

**Education:** High school diploma

## ■ Automation Risk Assessment

**Medium Risk** - 35.0% probability of being automated in the next 10-20 years.  
This job has some routine elements but still requires human judgment and interaction.

## ■■ Work-Life Balance

**5.1/10** - Fair work-life balance

## ■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

<b>Realistic</b>	9.4/10	<b>Investigative</b>	5.8/10
<b>Artistic</b>	4.0/10	<b>Social</b>	5.0/10
<b>Enterprising</b>	5.0/10	<b>Conventional</b>	6.0/10

## ■ Top Skills Required

Color vision, Critical-thinking skills, Customer-service skills, Physical stamina, Physical strength, Troubleshooting skills

### ✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

### ■ Challenges

- Burnout Risk
- Rapid Technological Change

## ■ What They Do

Here's the **formatted summary for Electricians (47-2111)** in your requested style, using `` for newlines and ` ` for items, without the earnings section:

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Electricians install, maintain, and repair **electrical systems and equipment in homes, businesses, and industrial facilities**. They read blueprints, follow electrical codes, and ensure safe, reliable power distribution. Their work is critical in construction, maintenance, and energy industries.

This career is well suited for individuals who enjoy hands-on technical work, problem-solving, and working with electrical systems.

## What Do Electricians Do?

These professionals set up electrical wiring, troubleshoot problems, and ensure systems operate safely and efficiently.

Common responsibilities include:

- Installing and connecting wiring, outlets, and electrical panels
- Inspecting electrical systems for safety and code compliance
- Diagnosing and repairing electrical malfunctions
- Reading and interpreting blueprints, schematics, and technical diagrams
- Testing electrical components and systems
- Maintaining tools, equipment, and safety standards
- Coordinating with contractors, engineers, and clients

## Key Areas of Electrical Work

Electricians may specialize in specific systems or environments:

- Residential Wiring: Installing and repairing electrical systems in homes
- Commercial and Industrial Systems: Working with large-scale wiring and machinery
- Maintenance and Troubleshooting: Diagnosing and fixing electrical issues
- Installation of Electrical Equipment: Setting up lighting, control systems, and appliances
- Safety and Code Compliance: Ensuring adherence to local, state, and national regulations

## Skills and Abilities Needed

Electricians combine technical, analytical, and safety-focused skills.

### ***Core Professional Skills***

### ***Personal Qualities That Matter***

## Education and Career Pathway

This role typically requires vocational training or apprenticeships:

- High School Diploma or GED (minimum): Basic math, physics, and technical skills
- Apprenticeship or Vocational Training: Learning wiring, installation, and electrical codes
- On-the-Job Training: Gaining practical experience under supervision
- Licensing or Certification (varies by state): Required to work independently as an electrician
- Continuous Learning: Staying updated on new technologies, codes, and safety standards

## Where Do Electricians Work?

They are employed in construction, maintenance, and energy industries:

- Residential and Commercial Construction
- Industrial and Manufacturing Facilities

- Utility and Energy Companies
- Maintenance and Repair Services
- Self-Employed or Contracting

Work environments include construction sites, homes, commercial buildings, factories, and outdoor installations.

## Is This Career Difficult?

This career requires technical knowledge, physical ability, and safety awareness. Electricians must work carefully with high-voltage systems, follow codes, and troubleshoot complex problems.

## Who Should Consider This Career?

This career may be a strong fit if you:

- Enjoy hands-on technical work with electrical systems
- Are detail-oriented and safety-conscious
- Can solve complex problems and troubleshoot
- Have physical stamina and manual dexterity
- Want a career in construction, maintenance, or energy systems

## How to Prepare Early

- Take courses in electricity, physics, or industrial arts
- Gain experience through apprenticeships or vocational programs
- Develop skills in wiring, installation, and troubleshooting
- Learn safety procedures and electrical codes
- Explore certifications or licenses required for electricians

**Electricians install, maintain, and repair electrical systems, ensuring safe, reliable, and efficient operation in homes, businesses, and industrial facilities.**