

# STEM Career Readiness: Electrical Engineers

The background image is a grayscale photograph of a woman with long hair, wearing a white lab coat and safety glasses, sitting at a desk in a laboratory. She is looking at a laptop screen and has her hands on the keyboard. The desk is cluttered with various electronic components, wires, and tools. In the background, there are shelves with more equipment and a perforated metal screen. The overall scene suggests a technical or engineering environment.

# INTRODUCTION

Before I got into STEM lab and robotics, I was unenthusiastic about engineering and STEM. When I thought about engineering, I imagined ..... Actually, I never thought about it.

Whenever someone would mention engineering my thoughts would go something like this :

**Person:** Talking about something that has to do with engineering.

**Me:** "What did he say? Eh, who cares. It is probably some boring, unimportant , thing anyway." And my thoughts would drift away to something else.

## The change

But when I got into robotics and the STEM lab, it all changed. One day my STEM lab teacher, Ms. Berrones was talking about engineering and the engineering process. I listened to some of it and I was like "Cool!".

Later I tried out for robotics because I was inspired by my brother and to make a long story short, I got in and had fun building, coding, and competing.

During that process, I learned what an engineer does and I realized I had been engineering stuff all my life. And a little later I discovered the electrical engineer and I knew at once that was my dream career.



# The electrical engineer

Look around you. Everything from the digital watch on your wrist to 17-inch screen computers on a desk was designed by electrical engineers.

## What exactly do electrical engineers do?

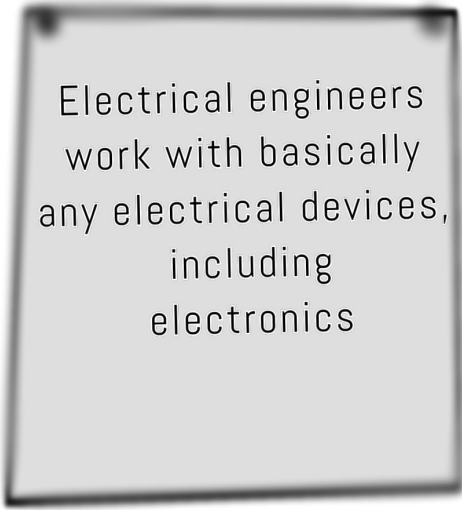
To put it plainly, electrical engineers design, develop, and test electrical devices. They also solve problems and make new gadgets to make our lives easier.

## Electronic vs Electrical Engineer

A lot of people might confuse electrical engineers with electronic engineers.

Well, an electronics engineer works on electronics, like phones, smartwatches, and other things with small components.

Electrical engineers do a lot more work on other things, but that doesn't mean they don't work on electronics, too.



Electrical engineers  
work with basically  
any electrical devices,  
including  
electronics



Electronic  
engineers work  
with  
Electronics.  
Ex. Phones

# How to become an Electrical Engineer

**0.5 step :** Pay attention in math and science

## **First step:**

GET YOURSELF SOME EDUCATION!!

Did you really expect they would let you have the job when you have NO education?

Complete high school and get into college.

## **Second step:**

TAKE THE EXAM

You really thought you were done? Well , surprise surprise there is more work to be done.

The fundamentals of engineering is designed for recent graduates or right before you get a bachelor's degree.

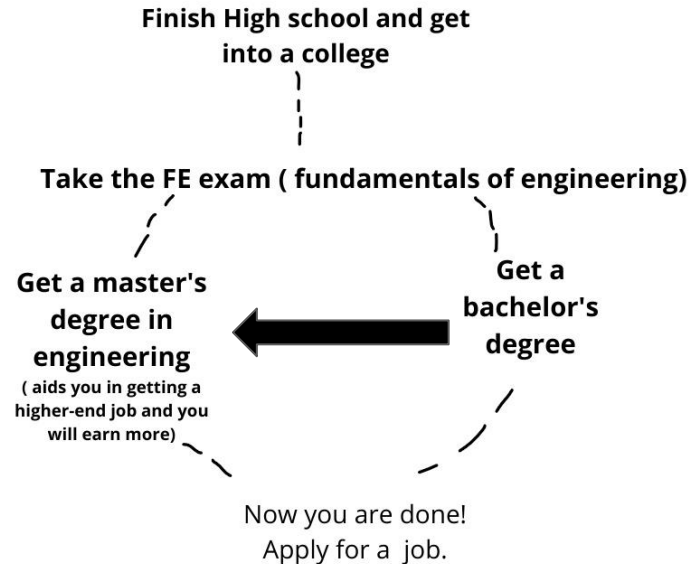
## **Third step:**

If you haven't, get your bachelor's degree

## **Fourth step:**

Apply and get a job.

**By The Way** You don't really need to do these steps you could be an electrical engineer at home



Average salary :

**\$76,038**

Hours a day :

**8 hours**

Hours a week:

**40 hours**



## Typical Day

A large part of is usually working on their projects with a team or solo. They may be on a computer, or they may be in a lab with actual equipment. Electrical engineers will have a lot of meetings with who they're working with or the client. They also may have to write emails and troubleshoot if something isn't working the way it should.



# Tens years later.....

Ten years ago, we had had the first jet pack that you could buy and people were amazed. Now we have wireless charging and robotic arms! Technology and electrical engineering have indeed evolved over the last 10 years. That got me thinking, what could happen in the next 10 years?

I think there would be a demand for electrical engineers because technology is getting more advanced. There might be a lot more things to help engineers like robots for example. Holograms will become more advanced. It would be a lot easier to communicate with a hologram of yourself somewhere. Electrical engineering will be a lot easier with technology to help.

We can't predict the future, so let us wait and see!



# Never give up!

This might seem random but it is crucial to being an electrical engineer.

Never giving up is important even though it sounds corny and kids don't take it seriously. Thomas Edison said "I have not failed. I've just found 10,000 ways that won't work." and "Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time." Perseverance is an important life skill and trait even if you are not pursuing a STEM career. It is also extremely important in electrical engineering. The reason why is because electrical engineers often have to do big projects with deadlines. You think after their first fail they are going to quit? NO. So never give up.



Perseverance is a trait that Thomas Edison had that led to his success.

# Sources

## What an engineer does

<https://www.engineering.unsw.edu.au/electrical-engineering/what-we-do/what-do-electrical-engineers-do>

<https://www.careerbuilder.com/advice/career-advice-for-aspiring-electrical-engineers#:~:text=Electrical%20engineers%20typically%20work%2040,arise%20that%20require%20urgent%20resolution.>

## More information and quotes

<https://online.engineering.arizona.edu/news/careers-electronics-engineer-vs-electrical-engineer/>

[https://www.payscale.com/research/US/Job=Electrical\\_Engineer/Salary](https://www.payscale.com/research/US/Job=Electrical_Engineer/Salary)

[https://study.com/articles/is\\_a\\_masters\\_degree\\_in\\_electrical\\_engineering\\_worth\\_it.html](https://study.com/articles/is_a_masters_degree_in_electrical_engineering_worth_it.html)

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## How to become one

<https://www.bestcolleges.com/careers/science-and-engineering/electrical-engineering/>

<https://www.worldwidelearn.com/online-education-guide/engineering/electrical-engineering-major.htm>

<https://www.learnhowtobecome.org/electrical-engineer/>

## Pictures

Chart and drawings made by Karen Adeluyi

Thomas Edison image:

<https://theylovequotes.com/funny-quotes/thomas-edison-3/>

Front cover image:

<https://www.pikist.com/free-photo-ivjlc>

Hologram picture:

<https://medium.com/@Goetz/holograms-and-the-the-future-of-meetings-a258eb777630>





# Electrical Engineers

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