



# Virtual Learning

# Unmanned Flight Safety and Operations

**Career Exploration - Computer Engineer**

**May 15, 2020**



# Unmanned Flight Safety and Operations

## Lesson: May 15, 2020

### **Objective/Learning Target:**

Students will learn about the career of a computer engineer and what requirements are needed to become an one.



## **Bell Work:**

What do you think are the requirements for someone to become a computer engineer?



## Let's Get Started:

### Watch Videos:

- [What is Computer Engineering?](#)
- [Computer Engineering Careers and Subfields](#)

Computer engineering (CE) is a branch of engineering that integrates the fields of computer science and electrical engineering. These engineers help to develop computer hardware and software. Computer engineers usually have training in electrical engineering, software design, and hardware-software integration. Computer engineers are involved in many hardware and software aspects of computing, from the design of individual microcontrollers, microprocessors, personal computers, supercomputers, to circuit design. This field of engineering not only focuses on how computer systems themselves work but also how they integrate into the larger picture.



A computer engineer generally needs a bachelor's degree in computer engineering. However, if you earn a degree in computer science or electrical engineering that can also be accepted. A computer engineering degree is very similar to an electrical engineering degree, but a computer engineering degree does have additional courses related to computer science.



Space exploration, aviation, and national defense systems all use high end technologies that were developed by computer engineers.

Computer engineers also design components for things like missiles, rockets, military and commercial aircraft, remote piloted planes and helicopters, and spacecraft.



Here are some colleges where you can get a computer engineering degree:

Wichita State University

Missouri University of Science & Technology--Rolla

California Institute of Technology.

Massachusetts Institute of Technology.

Stanford University.

Georgia Institute of Technology.

University of Michigan--Ann Arbor.

Purdue University--West Lafayette.

University of Illinois--Urbana-Champaign.

Texas A&M University--College Station.





# Computer Engineering Understanding

Use the internet to research the following questions:

1. Description of the occupation including main duties and responsibilities.
2. What are the education and training requirements for the occupation?
3. List other required qualifications such as licensing, certifications, etc.
4. What field of Engineering works closely with a Computer Engineer?
5. List the name of one person that is in a Computer Engineer (someone famous, use Google).