

# Aerospace Engineers

SOC: 17-2011 • Career Profile Report

## ■ Key Facts

\$134,830

Median Salary

71,600

Employment

+6.0%

Growth Rate

## ■ Requirements & Salary Range

Education: Bachelor's degree

## ■ Automation Risk Assessment

**Low Risk** - 17.0% probability of being automated in the next 10-20 years.

This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

## ■ Work-Life Balance

**8.2/10** - Excellent work-life balance

## ■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	8.2/10	Investigative	8.8/10
Artistic	6.4/10	Social	5.2/10
Enterprising	5.8/10	Conventional	6.6/10

## ■ Top Skills Required

Analytical skills, Business skills, Communication skills, Interpersonal skills, Math skills, Problem-solving skills

### ✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

### ■ Challenges

- Burnout Risk
- Rapid Technological Change

## ■ What They Do

Aerospace Engineers typically perform the following tasks:

- Formulate mathematical models or other methods of computer analysis to develop, evaluate, or modify design, according to customer engineering requirements.
- Plan or conduct experimental, environmental, operational, or stress tests on models or prototypes of aircraft or aerospace systems or equipment.
- Formulate conceptual design of aeronautical or aerospace products or systems to meet customer requirements or conform to environmental regulations.
- Plan or coordinate investigation and resolution of customers' reports of technical problems with aircraft or aerospace vehicles.
- Write technical reports or other documentation, such as handbooks or bulletins, for use by engineering staff, management, or customers.
- Direct or coordinate activities of engineering or technical personnel involved in designing, fabricating, modifying, or testing of aircraft or aerospace products.
- Evaluate product data or design from inspections or reports for conformance to engineering principles, customer requirements, environmental regulations, or quality standards.
- Develop design criteria for aeronautical or aerospace products or systems, including testing methods, production costs, quality standards, environmental standards, or completion dates.
- Analyze project requests, proposals, or engineering data to determine feasibility, productibility, cost, or production time of aerospace or aeronautical products.
- Maintain records of performance reports for future reference.
- Diagnose performance problems by reviewing reports or documentation from customers or field engineers or by inspecting malfunctioning or damaged products.
- Direct aerospace research and development programs.
- Evaluate and approve selection of vendors by studying past performance or new advertisements.
- Design new or modify existing aerospace systems to reduce polluting emissions, such as nitrogen oxide, carbon monoxide, or smoke emissions.
- Design or engineer filtration systems that reduce harmful emissions.
- Develop and test autonomous systems for uncrewed aerospace vehicles.
- Develop software for aerospace systems.
- Evaluate biofuel performance specifications to determine feasibility for aerospace applications.