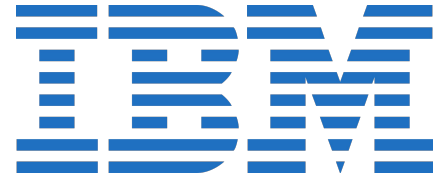




ORACLE®

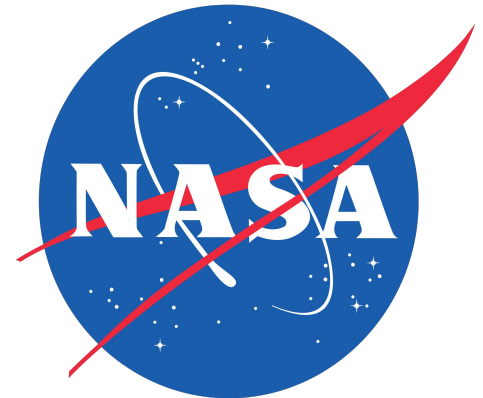


# Welcome to the World of Mechanical Engineering

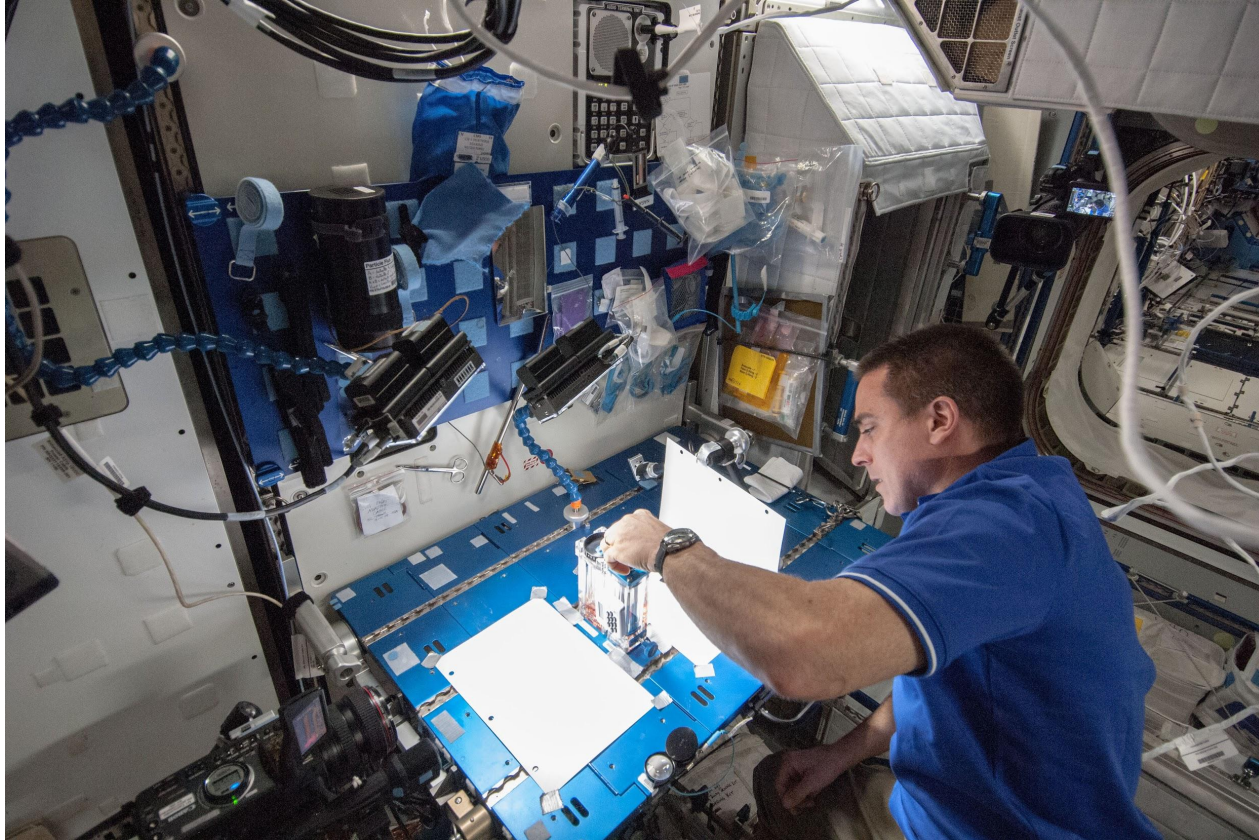
Sergio A. Espejo



TESLA

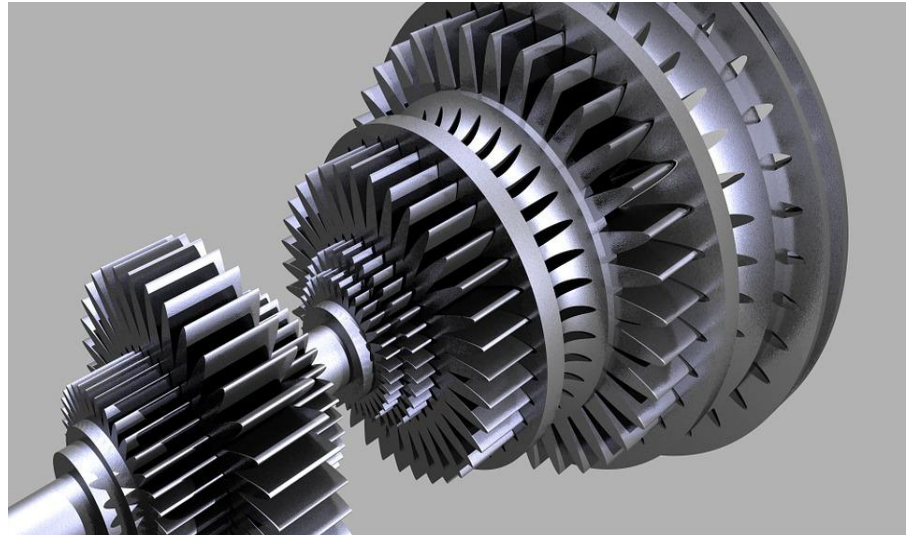


# What is Mechanical Engineering?



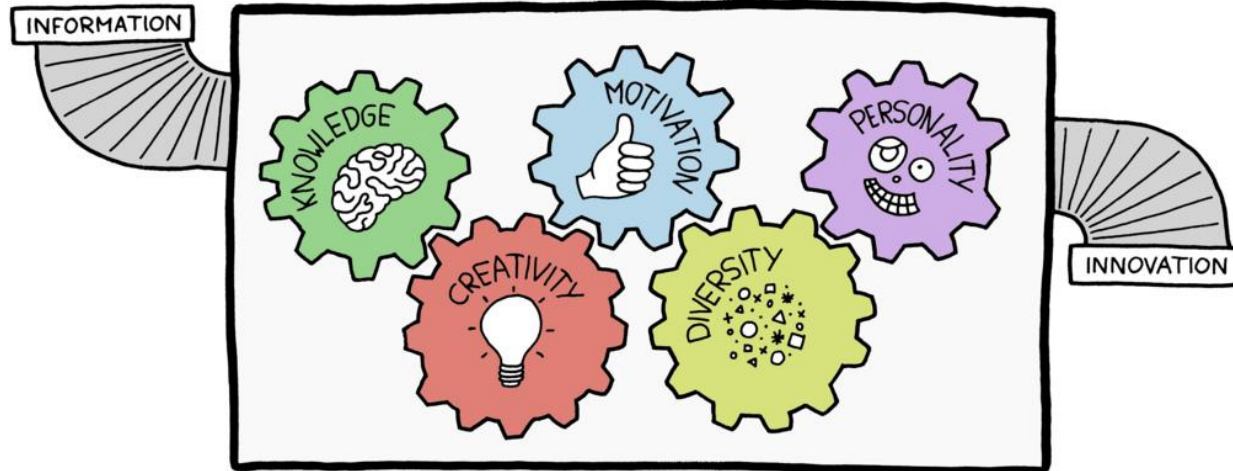
# “The Mother of Engineering”

- The oldest sector of engineering
- Used to create any and everything
- If you could build anything, what would you want to create?



# Innovation and Creation...

- It is the duty of an engineer to make life easier, and to make the world a better place
- Engineers solve problems, innovate existing technologies, and create new ones.





# Vehicle Engineering

Tesla

BMW

GM



# Aerospace Engineering

Design and construction of aircraft, high tech industry

Spacex

Boeing

Defense

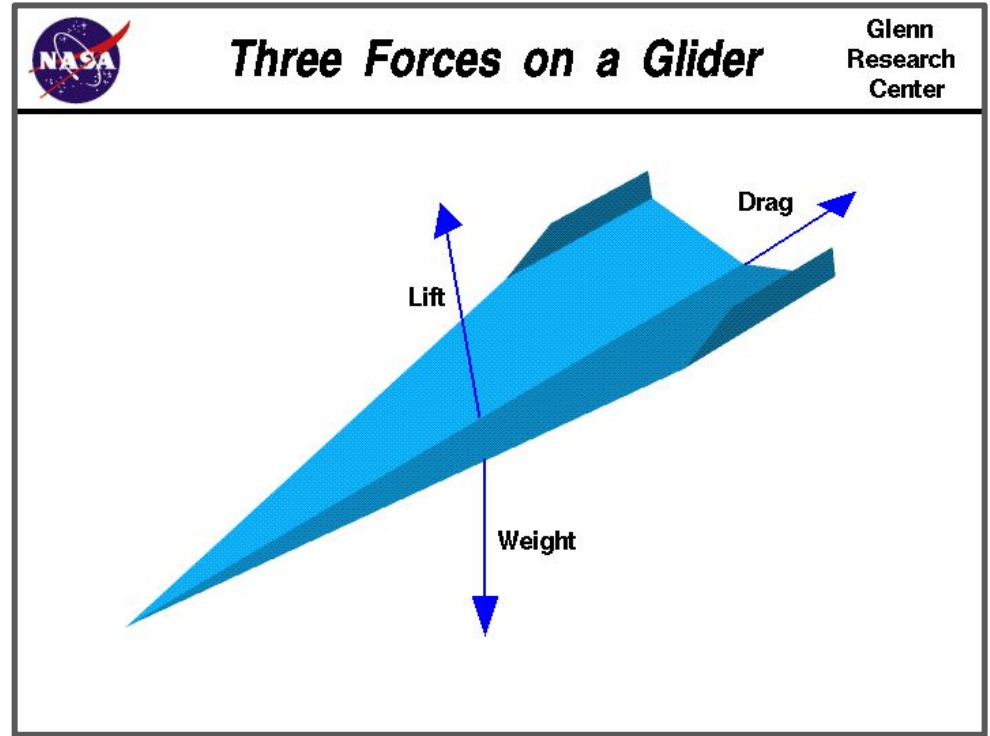
Lockheed Martin



# How is math used?

Model the behavior of complex material systems (for example, the composite materials that a plane is made of).

Calculate the complex forces acting on an aircraft in flight, and optimize its shape under (thermal and mechanical) stress.



# Classes Needed

## Math

- Algebra
- Geometry
- Trigonometry
- Calculus

## Sciences:

- numerical computation
- differential equations
- mechanics and materials
- energy consumption
- optics

