

# AIM Modal Analysis of a Wing - Physics Setup

Author: Madison Hill, ANSYS

[Problem Specification](#)

[1. Pre-Analysis & Start-Up](#)

[2. Geometry](#)

[3. Mesh](#)

[4. Physics Setup](#)

[5. Numerical Results](#)

[6. Verification & Validation](#)

## Physics Setup

Next, we will apply the boundary conditions to the geometry.

Summary of steps in above video:

- Change the material of the wing to a new material with the name Aluminum 6061-T6
- Add a density property of  $2700 \text{ kg/m}^3$
- Add an Isotropic Elasticity property, with Young's Modulus =  $1\text{e}7 \text{ psi}$  and Poisson's ratio = 0.33
- Add a fixed support on two edges of the wing's end

[Go to Step 5: Numerical Results](#)

[Go to all ANSYS AIM Learning Modules](#)