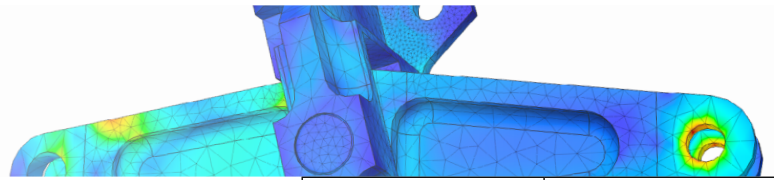


# Simulation Comparison Chart



		Fusion 360 Subscription	Fusion 360 PLUS Simulation Extension Subscription (monthly/annual terms)
3D Simulation Study Types	<b>Static Stress</b> Inspect a range of load conditions and the resultant stress, strain, and deformation results analyzed to determine the likelihood of failure of the design. <small>Looking for more advanced finite element analysis (FEA) simulation capabilities? See <a href="#">Autodesk@ Inventor@ Nastran@</a>.</small>	✓	✓
	<b>Modal Frequencies</b> Inspect the effects of natural free-vibration on your part or assembly to help you fine tune your design. <small>Looking for more advanced finite element analysis (FEA) simulation capabilities? See <a href="#">Autodesk@ Inventor@ Nastran@</a>.</small>	✓ (3 TOKENS PER CLOUD SOLVE)*	✓
	<b>Thermal Steady State</b> Trace heat transfer across your part or assembly to understand if your part may fail based on the maximum critical temperature of a component. <small>Looking for more advanced thermal simulation capabilities? See <a href="#">Autodesk@ CFD</a>.</small>	✓ (3 TOKENS PER CLOUD SOLVE)*	✓
	<b>Thermal Stress</b> Simulate temperature-induced stresses caused by temperature gradients in the model and varying thermal expansion characteristics of the materials. <small>Looking for more advanced thermal simulation capabilities? See <a href="#">Autodesk@ CFD</a>.</small>	✓ (3 TOKENS PER CLOUD SOLVE)*	✓
	<b>Shape Optimization</b> Achieve light weight design goals by identifying material can be removed from your design, while still achieving allowable stress and displacement objectives. <small>Interested in optimizing designs even more? See <a href="#">Autodesk Fusion 360@ Generative Design Extension</a>.</small>	- (3 TOKENS PER CLOUD SOLVE)*	✓
	<b>Nonlinear Static Stress</b> Explore large deformation, motion, contact and load changes, and nonlinear material behavior during an event or an incremental change in loads. <small>Looking for more advanced finite element analysis (FEA) simulation capabilities? See <a href="#">Autodesk@ Inventor@ Nastran@</a>.</small>	- (6 TOKENS PER CLOUD SOLVE)*	✓
	<b>Dynamic Event Simulation</b> Evaluate short duration events which take into account mass, velocity, acceleration, inertia, and damping effects. how time-dependent forces influence design performance. <small>Looking for more advanced finite element analysis (FEA) simulation capabilities? See <a href="#">Autodesk@ Inventor@ Nastran@</a>.</small>	- (6 TOKENS PER CLOUD SOLVE)*	✓
	<b>Quasi-Static Event Simulation</b> Identify behaviour of highly non-linear product performance such as large deformation contacts or large plastic deformation. <small>Looking for more advanced finite element analysis (FEA) simulation capabilities? See <a href="#">Autodesk@ Inventor@ Nastran@</a>.</small>	- (6 TOKENS PER CLOUD SOLVE)*	✓
	<b>Structural Buckling</b> Determine the critical buckling multiplier and modal buckling shape from a compression load applied to your structural component to develop a support or stiffening structure to prevent structure failure due to buckling. <small>Looking for more advanced finite element analysis (FEA) simulation capabilities? See <a href="#">Autodesk@ Inventor@ Nastran@</a>.</small>	- (6 TOKENS PER CLOUD SOLVE)*	✓
	<b>Injection Molding Simulation</b> Identify how your part design influences part manufacturability and part quality for plastic injection molded parts through guided results to get an aesthetically acceptable part that will perform as intended. <small>Looking for more advanced injection molding simulation capabilities? See <a href="#">Autodesk@ Moldflow@</a>.</small>	- (6 TOKENS PER CLOUD SOLVE)*	✓

\* Cloud simulation token amounts shown are current as of Aug. 2022. For the most up-to-date information on solving options and costs, please visit [Autodesk Fusion Help Documents - Cloud credits for Fusion 360 simulation studies](#).