



Simulate Your *Future* Designs

Seifert Technologies' Finite Element Analysis service allows you to create virtual prototypes of your most complicated designs and determine how they will react to real-world forces. Simulating these conditions on your designs related to stress, temperature, and vibration allows you to ensure quality, performance, and safety. Seifert Technologies' simulation solutions is a crucial step that you can easily add to your design process. Highlighting problems and finding solutions during the design phase reduces the need for costly prototypes, rework, and delays, which saves time and development costs. You can rely on our experience and engineering expertise to create the most accurate analysis for your design.

Finite element analysis helps predict the behavior of products affected by many physical effects, including:

- Mechanical Stress
- Mechanical Vibration
- Fatigue
- Motion
- Heat Transfer
- Thermal Deflection
- Buckling
- Creep and Relaxation
- Contact
- Impact

FEA Capabilities Include:

- Study stress and forces between assembled parts
- Apply pressure, forces, and torques
- Study the effects of fasteners, pins, bearings, and springs
- Drop test analysis calculates acceleration loads, stresses, and deflections as the product hits the floor
- Analyze stress plots through your products entire range of motion
- Apply temperature variations related to conduction, convection, and radiation
- Dynamic vibration analysis will predict unforeseen assembly failures
- Combine structural and thermal loads
- Assess the complex effects of cyclic loading (fatigue) on components
- Determine the load at which an object will partially or fully buckle

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