

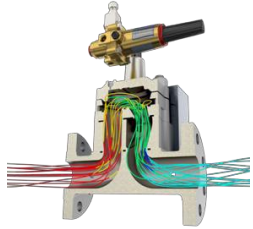
# ANALYSIS CONSULTING SERVICES



Hawk Ridge Systems has an experienced analysis consulting team dedicated to helping you with your simulation and analysis projects. With advanced skills in SOLIDWORKS Simulation and SIMULIA Abaqus, we can provide everything from a complete consulting project to an on-site implementation of analysis tools via a Simulation Flight Plan.

## CAPABILITIES

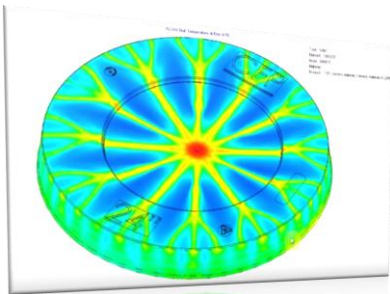
With experience across a variety of industries and usage of multiple FEA and CFD tools, our team of experts can help you solve:



- Structural Analysis
- Drop, Impact and Crash
- Vibration and Shock
- Nonlinear Analysis
- Material Model Development from Test Data
- Pressure Drop
- Electronics Cooling
- Mold Flow Analysis
- Thermal Analysis
- Multibody Dynamic Motion

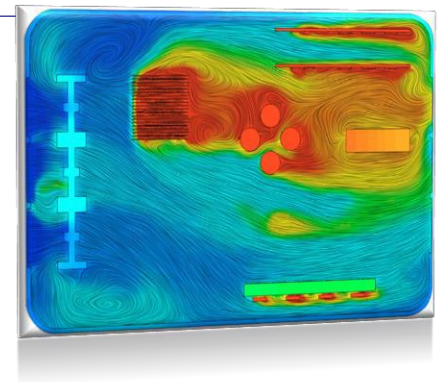
## SAMPLE PROJECTS

Analysis consulting engagements range from simple analyses to complex interpretation of material test data and virtual destructive testing. Hawk Ridge Systems has performed hundreds of projects with a range of technologies. Sample projects on structural mechanics, CFD analysis and injection molding with SOLIDWORKS Plastics are available on the [Hawk Ridge Systems website](#).



Hawk Ridge systems contracted with Stamco Speciality Tool and Manufacturing company to perform injection molding simulation of a 24-inch plastics pipe cap using SOLIDWORKS Plastics. Stamco was concerned that their specified in-house injection molding machine would not be able to successfully fill the mold tooling that had been designed for the part, so Hawk Ridge Systems performed a fill simulation to predict the required injection pressure and clamping forces, in addition to predicting defects caused by temperature and pressure patterns.

The SOLIDWORKS Flow Simulation Electronics Cooling module was used to analyze the cooling effectiveness of a small-form-factor PC. Device performance was tested in various environmental conditions and layout configurations to reduce the prototype investment by identifying thermal issues early in development. Post processing graphical representations of the analysis results allowed engineers to present their findings for internal discussions and for marketing collateral.



## ANALYSIS SERVICES MATRIX

Our experts provide customized training and consulting services. We can work with your team as an additional resource by implementing a Simulation Flight Plan, or you can outsource an entire analysis project to us. The Analysis Services Matrix can help you make the best choice for your needs.

Deliverables	Simulation Flight Plan	Analysis Consulting
Software Installation and Configuration	✓	
An interactive review and evaluation of your application.	✓	✓
Model simplification	✓	✓
Analysis strategy development	✓	✓
Execution of your analysis		✓
Delivery of model setup and result files		✓
A report that includes an analysis setup overview and any Result plots, tracked parameters, or data tables.		✓
On-site mentoring session	✓	

## WHY CHOOSE HAWK RIDGE SYSTEMS FOR ANALYSIS CONSULTING?



The Analysis Services team is well-versed in design validation, virtual testing, and project management. We can help you get into production faster and with less prototyping. Fundamentally, we can reduce your risk through virtual design qualification well in advance of costly production or prototyping.

For your most challenging contact, large-deformation or impact problems we have SIMULIA Abaqus application specialists that can help develop material models from test data, validate analysis to testing, and provide a technology transfer so that you can hit the ground running with your analysis projects.

To learn more about Analysis Consulting, contact us: [hawk@hawkridgesys.com](mailto:hawk@hawkridgesys.com)



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