



## ENGINEERING SERVICES BY DAA

Solve your most complex problems and accelerate your products to market.

Let your team stay focused on their expertise with DAA managing your Engineering Services and working as an extension of your department. For more than 20 years, we've delivered a wide range of Engineering Services that have helped our loyal customers increase their profitability and productivity.

### Engineering Services Disciplines

Acoustic Analysis

Computational Fluid Dynamics (CFD)

Heat Transfer Analysis

Manufacturing Engineering

Mechanical Design

Mechatronics

Multiphysics

Rotor Dynamics

Structural Analysis

Systems Engineering

Test Engineering

Thermodynamics

For full details on our  
Engineering Services visit  
[daasolutions.com/services](http://daasolutions.com/services)

### Customer Highlights

#### Pratt & Whitney Aircraft Engine Support Fixtures

DAA leveraged a popular Finite Element Analysis (FEA) tool for Structural Analysis of support fixtures and equipment for the manufacturing, service, and transportation of Pratt & Whitney military aircraft engines used on the Joint Strike Fighter program. These highly-engineered fixture systems rotate, reposition, and transport engines and components throughout assembly, delivery, and overhaul.

DAA's role as an Analysis Services provider helped ensure that the design of these complex fixtures would provide safety for military service personnel when handling engines and large components.

The analysis services DAA deployed included ANSYS Static Loads, Mechanical Nonlinear Analysis, Plasticity, and Vibration Analysis.



#### EaglePicher Technologies Spacecraft Battery Modules

DAA designed the battery module for NASA's Space Launch System (SLS) advanced launch vehicle for the agency's Orion spacecraft. DAA's services performed all Static, Mechanical Nonlinear, both Random and Modal Vibration, and Thermal Gradient and Capacity Analyses. DAA's role was truly mission-critical, as the SLS Battery Module provides all spacecraft power for everything inside the crew module.

DAA also provided Structural Analysis of the battery modules for the MARS Exploration Rovers, including Curiosity, which just discovered organic compounds on Mars!



# THE DAA WAY.

## Engineered in the USA.

DAA is a 100% U.S. employed vendor and is ITAR compliant.



Leveraging our thought leadership and systematic approach to Engineering Services, DAA serves as a powerful advisor to customers, with the experience and knowledge to positively impact product development. The technology and methodology we employ increases capacity, reduces product development costs, and improves your time to market.



### Design Expertise

DAA handles a broad range of design problems, with engineers specializing in fluids, electronic layouts, rotating equipment, and more. And with over 20 years' experience in many CAD systems, we can deliver models in virtually any format you need.

#### DAA proprietary tools help to:

- Deliver quotes faster
- Size bolted joints
- Defeature models for analysis



### Analysis Verification

Any engineering firm can plug a model into analysis software and report on the results. DAA ensures accuracy with a proprietary verification processes.

#### Model verification via:

- Order of magnitude calculations
- Model checklist tool
- Reaction load balance
- Test plans and physical testing
- Model Correlation to test



### Reporting Excellence

We take pride in our work and it shows in our reporting. DAA has served many of the world's most successful engineering firms, and is familiar with U.S. Government requirements ensuring acceptance.

#### Accurate reporting with:

- Multiple technical and grammatical proofs
- Reviewed by peers and management
- Industry and government specs on hand for verification



### Engineered Requirements

DAA is not just a 3rd party—we are an extension of your product development team.

#### We help to:

- Develop design criteria for new products/systems
- Create specification and requirements documents and standard work
- Fill in design and analysis gaps to complete product development