

Themed Entertainment Industry Capabilities

Collaborative Design, Analysis, and Test Services for Themed Entertainment



ATA Engineering has had a long history of supporting the engineering needs of the themed entertainment industry. With a multidisciplinary team of highly qualified and experienced engineers, ATA provides a comprehensive range of technical solutions to address the engineering challenges associated with developing high-energy, reliable, durable, attractions and show action equipment. ATA offers industry-leading analysis, test, and design services for the highly engineered, safety-critical structural and mechanical systems used in state-of-the-art theme park attractions. Specific services that ATA successfully and routinely delivers to the world's largest theme park companies and suppliers include the following:

Analysis and Design Services:

- Analysis-Driven Structural and Mechanical Design
- Stiffness and Dynamic Amplification Evaluations
- Strength and Durability Assessments
- Rigid/Flexible Multibody Dynamic Analysis
- Conceptual Design and Trade Studies
- Structural Hazard Analysis and FMEA
- Detailed Design for Fabrication
- Fabrication Drawings to ASME Standards

Testing and Troubleshooting Services:

- Site Acceptance, Commissioning and Verification Testing
- Strain, Acceleration, and Deflection Measurements
- Fatigue, Life, and Accelerated Life Calculations
- Structural Dynamics and Modal Testing
- Dynamic Environment Derivation
- Material Property Quantification
- Troubleshooting:
 - Structural Dynamic Responses
 - Problematic Vibrations
 - Structural Indications

Specialty Engineering Services:

- Compliance with All Major Industry Standards
- Third-Party Design Review
- PE Review and Approval
- Test Data- FEA Correlation
- Failure and Root-Cause Analysis/Testing
- Minimum Weight Design
- Design for Extreme Environments
- Composite Manufacturing Process Review, Support, and Quality Assessment

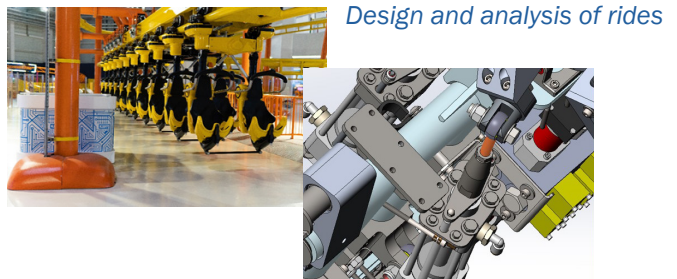
Industry-Related Experience:

- Ride Vehicles and Track Structures
- Motion Base Simulators
- Animatronic Figures
- Show Action Equipment
- Highly Engineered Structures/Mechanisms
- Prototype Product Development
- Composite analysis and manufacturing audits
- Active member of ASTM F24

Experts in Structural Dynamics and Test Verification for Ride Engineering



Fatigue analysis for rides and vehicles



Design and analysis of rides

Software utilized:

NX, Simcenter 3D, SolidWorks, Simcenter Nastran, MSC Nastran, Adams, MATLAB, Femap, Abaqus, Ansys

Awards

29th Annual Thea Awards - 2023

- Universal Studios Beijing Theme Park Resort
- Thea Award for Outstanding Achievement – Theme Park

27th Annual Thea Awards - 2021

- Star Wars: Rise of the Resistance
- Disney's Hollywood Studios, Florida & Disneyland Park, California, USA
- Thea Award for Outstanding Achievement – Attraction

23rd Annual Thea Awards - 2017

- Shanghai Disneyland
- Thea Award for Outstanding Achievement – Theme Park



19th Annual Thea Awards - 2013

- Cars Land
- Disney California Adventure Theme Park, California, USA
- Thea Award for Outstanding Achievement – New Theme Park Land

18th Annual Thea Awards - 2012

- Star Tours – The Adventures Continue
- Disney's Hollywood Studios, Florida & Disneyland Park, California, USA
- Thea Award for Outstanding Achievement – Attraction Refresh

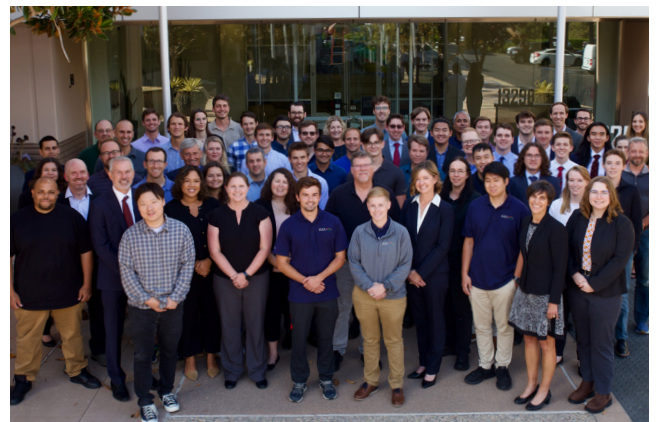
15th Annual Thea Awards – 2009

- The Simpsons Ride – Universal Studios Florida and Universal Studios Hollywood
- Thea Award for Outstanding Achievement – Attraction Vehicle Frame Structural Assessment

Our Company

ATA Engineering, Inc., (ATA) is a 100% employee-owned small business that has been helping our clients solve their complex engineering problems in the areas of product design, structural dynamics, thermal analysis, aeroelasticity, acoustics, software development, computational fluid dynamics (CFD), structural mechanics, training, and testing since 2000. In supporting numerous commercial and government programs with precision and efficiency, our team has earned a reputation for excellence in the engineering community. Such engagements comprise a wide range of highly engineered products, including military and commercial aircraft, satellites and interplanetary spacecraft, launch vehicles, missile systems, transportation vehicles, mining equipment, rides and equipment for themed entertainment, and electronic and consumer products.

We are committed to supporting our clients through advanced engineering methods. Please visit www.ata-e.com to learn more and connect with our team.



ATA is headquartered in San Diego, with offices in Albuquerque, Berkeley, Denver, Huntsville, Los Angeles, and Washington D.C.