

# 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

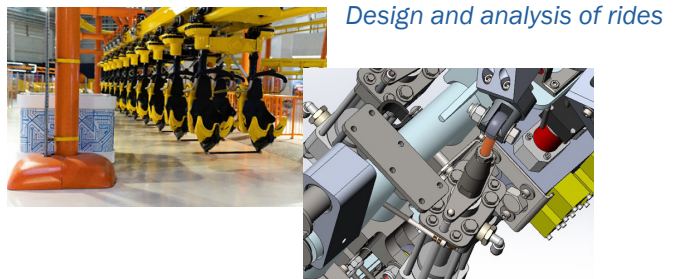
### Industry-Related Experience:

- 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

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ATA is proud to be named a vendor on several TEA Thea Awards including Outstanding Achievements for:

### 32nd Annual Thea Awards – 2026

- Harry Potter and the Battle of the Ministry™ (Universal Epic Universe, Orlando, Florida, USA) - *Ride Experience*
- Universal Epic Universe (Universal Orlando Resort) – *Theme Park*
- Monsters Unchained: The Frankenstein Experiment (Universal Epic Universe, Orlando, Florida, USA)– *Attraction*
- How to Train Your Dragon – Isle of Berk (Universal Epic Universe, Orlando, Florida, USA) – *Theme Park Land*

### 29th Annual Thea Awards - 2023

- Universal Studios Beijing Theme Park Resort – *Theme Park*

### 27th Annual Thea Awards - 2021

- Star Wars: Rise of the Resistance (Disney’s Hollywood Studios, Florida & Disneyland Park, California, USA) - *Attraction*

### 23rd Annual Thea Awards - 2017

- Shanghai Disneyland – *Theme Park*

### 19th Annual Thea Awards - 2013

- Cars Land (Disney California Adventure Theme Park, California, USA) – *New Theme Park Land*

### 18th Annual Thea Awards - 2012

- Star Tours – The Adventures Continue (Disney’s Hollywood Studios, Florida & Disneyland Park, California, USA) – *Attraction Refresh*

### 15th Annual Thea Awards – 2009

- The Simpsons Ride (Universal Studios Florida & Universal Studios Hollywood) - *Vehicle Frame Structural Assessment*

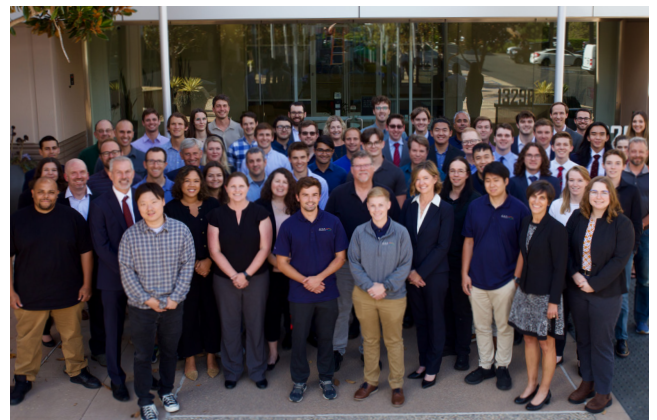


## Our Company

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ATA Engineering, Inc., (ATA) is a 100% employee-owned 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](http://www.ata-e.com) to learn more and connect with our team.



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