



**Supporting Your Engineering Needs**



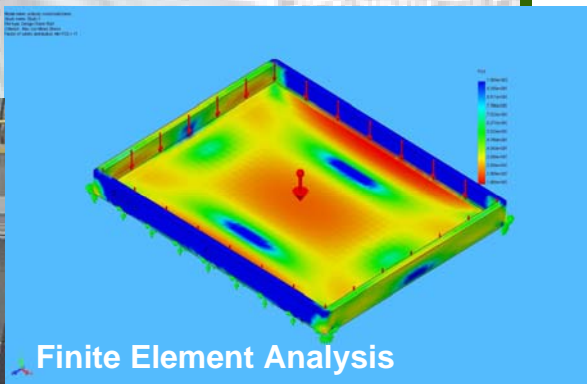
# A.K.A. ENGINEERING

## Integrated Engineering

- Mechanical
- Electrical
- Controls
- Analyses
- Testing



World's Largest Flight Simulator



Finite Element Analysis

- Product Optimization
- Machine Design
- Tooling / Testing Design
- Automation



Product Design



- Founded in 1999 specifically to support the high performance needs of NASA.
- Grown to service the engineering needs of design and manufacturing companies.
- Licensed professional Engineers

**Do All Your Pieces Fit?**

# GOALS & MISSION



*Engineering*  
*System*  
*Structural*  
*Mechanical*  
*Electrical*  
*Controls*  
*Software*

*Special Effects*

*Animation*

*Ride Systems*

*Kinematic Machines*

*Mechanical*   *Appli-*  
*ances*

*Pneumatics*

*Hydraulics*

*Communications*

Our **GOAL** at A.K.A. Engineering is to provide quality, cost effective engineering designs while minimizing technical risk.

Our **MISSION** is help you improve your product and your processes by **Supporting Your Engineering Needs.**

Our **FOCUS** is on integrated system engineering; specifications, engineering, analyses, design reviews, drawings, manufacturing, testing, and documentation.

Our **Years of EXPERIENCE** have taught us the value of developing innovative, cost effective, "on time" designs while coordinating all aspects of engineering, manufacturing, purchasing, and production.

**PROJECT MANAGEMENT** skills honed both in the office and on-site, have given us the expertise to choose the practical and economical solution.

Clear **COMMUNICATION** maintains the quality of the project. Weekly progress reports and progress meetings keep the client informed and the project moving smoothly.

**KEY COMMUNICATION  
DRIVES YOUR PROJECT'S  
SUCCESS.**

*Technical Risk  
Management*

*Requirements*  
*System*  
*Operational*  
*Maintainability*  
*Reparability*  
*System Life*  
*Test Plans*  
*Integration*

*Overall Design  
Margins*

*Requirements  
Analyses*

*Design Reviews*

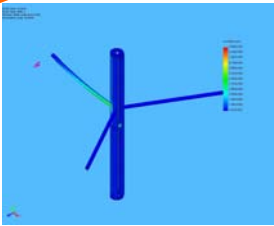
*Analyses Reviews*

*Testing*

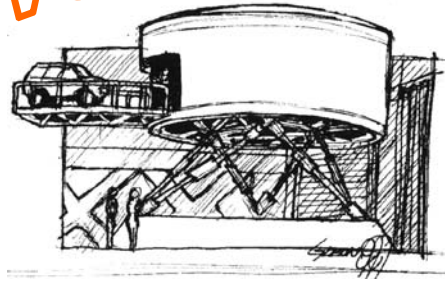
*Commissioning*

**Supporting Your Engineering Needs**

# How We Help YOU



Finite Element Analysis



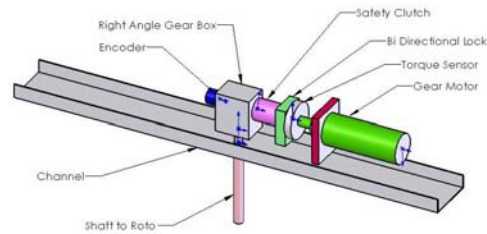
Concept Development



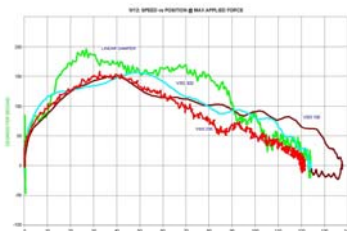
Product Development



Vehicle Development and Testing



Machine Design and Kinematics



Analyses and Reports



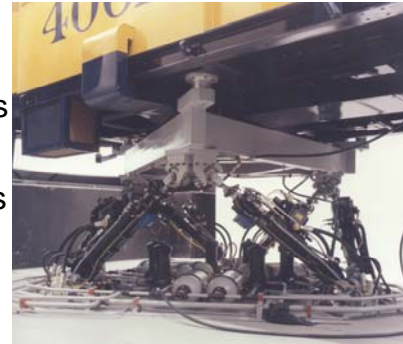
Automation and Material Handling Systems

**Solving Your Puzzle**

# PROJECTS



- Army Multi-Purpose Cargo Loader/Unloader
- 10 MW Turbine Generator Set
- 40" Hybrid Electric Bus
- Action Ride / ShowScan Theaters
- Automotive Vehicle Engineering
- Caesar's Palace Race for Atlantis
- EPA data analysis programs
- EPA Revised Durability Protocol
- F-16 Motion Cueing Trainer



- Floated-Ball Inertial Guidance Unit
- M1A1 Abrams Trainer Platform
- NASA Control Force Loaders
- NASA Flight Trainer Simulator
- Nevada Stateline Monorail



- Noise simulation and abatement
- Off-Road Construction Equipment
- Servo Control construction equipment
- Soil remediation Plant
- Star Trek The Experience
- Cosmic Adventure Ride



- Themed Safety Rails for Matterhorn Ride
- Mummy's Revenge Ride
- VR Express Capsule rides



**Filling In Your Missing Pieces**



# CAPABILITIES and SERVICES

## PROJECT MANAGEMENT

- Concept Development
- Facility Interface
- Permit Coordination
- Hardware Design Reviews
- Software design Reviews
- Integration and Test
- Installation, Test, and Adjust
- Scheduling
- Budget Management

## MECHANICAL SYSTEM DESIGN

- 2-D CAD Shop Drawings
- 3-D Solid Model Design & Drawings
- Stress and Fatigue Analyses
- Thermal Analyses
- Building Loads and Interfaces
- Kinematic Design and Analysis
- Finite Element Analyses (F.E.A.)

## INTEGRATION AND TEST

- Specification verification
- Sub-system interface verification
- Performance Measurement

## FACILITY

- Power Requirements
- Manage Sub-Contractors

## TEST AND ADJUST

- Engineered solutions to field anomalies
- Fine tuning for performance and effect
- Performance Verification

## MANUFACTURING OVERSIGHT

- Manufacturing Coordination
- Material Flow Analyses
- Quality Assurance
- Acceptance Testing of Equipment

## SYSTEM SPECIFICATION and DESIGN

- System Layout
- System Requirements and Analyses
- Operational Requirements and Analyses
- Computer Program Design Specifications
- Specification Generation
- Through-Put Analysis
- Cost-Benefit Analysis
- Functional Block Diagrams
- Ride Development
- Show Development
- Failure Modes Analysis

## CONTROL SYSTEM DESIGN

- System Single Line Drawings
- System Interconnect Drawings
- Control Logic Diagrams
- Ladder Logic
- PLC and Computer Implementation
- Timing Diagrams
- Servo-System Design
- Servo-Synthesis

## INSTALLATION MANAGEMENT

- Site Management
- Team coordination
- Coordinate Installation Schedules

## COMMISSIONING

- Final sign-off for operation
- Permit Coordination and Acceptance
- Operator Training

## DOCUMENTATION

- Drawings
- Reports and Analyses
- Manuals
- Acceptance Plans and Procedure
- Specification

A.K.A. Engineering will explore your design requirements.

# A.K.A. Engineering Solves YOUR Puzzle

## CLIENTS and CUSTOMERS



- Alfa Leisure, Inc – California
- Alvarado Manufacturing Inc. -- California
- Automotive Testing and Development Services, Inc -- California
- Boshart Automotive, Inc – California
- Bronx Zoo – New York
- Camber Entertainment - United Kingdom
- Combustion Associates, Inc - California
- Dynamic Research, Inc. – California
- Eldorado Stone, LLC -- California
- Environmental Chemical Corp. -- California
- FallGuard Safety Systems - California
- Flight Avionics - England
- Forum Associates, “Race For Atlantis” - Las Vegas, Nevada
- Hydraulic Controls, Inc -- California
- Illinois Institute of Technology Research Institute – Illinois
- Jack Loeks Theaters - Michigan
- Kawasho Corporation - Japan
- Kinetic Investments Pte Ltd. – Singapore
- Landmark Entertainment Group - California
- Melchers - Singapore
- Naval Air Station, North Island, San Diego, California
- NASA Ames Research Center - California
- NASA Langley Advanced Research Center – Virginia
- Norfolk Southern Railway - Georgia
- OC Incorporated- - Virginia
- Paramount Parks, “Star Trek The Experience” - Las Vegas, Nevada
- Premier Parks, Movie World – Germany
- Primm Resorts and Casinos – Stateline Nevada
- R. S. Alberts Company – Pennsylvania
- Renmark Pacific, Inc -- California
- Ride & Show Engineering - California
- Sahara Casino, “Speed World” - Las Vegas, Nevada
- ShowScan Entertainment – California
- Simuladores, S. A. de C. V. - Mexico
- SPORNET – South Africa
- TATA Electronic Development Services – India
- TePAPA - Museum of New Zealand
- Universal Studios
- Universal Studios - California

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