

ADVANCING TECHNOLOGY . ADVANCING HUMANITY

# **INTEGRATED SYSTEMS**

AGENCIES MUST DEPLOY

SPECIALIZED FLIGHT AND

GROUND SYSTEMS TO

EFFECTIVELY ACHIEVE

PROGRAM OBJECTIVES

ACROSS A SPECTRUM OF

CHALLENGING MISSION

ENVIRONMENTS.

In numerous areas, ranging from space exploration to national defense, government agencies and private ventures require highly specialized systems to deliver unique capabilities and functions. Kurtek provides a portfolio of integrated system design services that combines multidisciplinary capabilities and specific domain expertise to provide proven, cost-effective results and enable agencies to reliably achieve mission objectives.

# THE KURTEK DIFFERENCE

Our core strength is an **unparalleled team** of senior engineers and specialized subject-matter experts. Our engineers have decades of **proven performance** in multiple technical disciplines, with direct **hands-on experience** supporting numerous agencies, missions, programs, and systems across the global space community.

Our innovative engineering approach combines proven full-lifecycle system design and development expertise with specialized electrical and mechanical engineering capabilities to enable rapid implementation and deployment of integrated solutions that effectively address the performance requirements and unique environmental constraints of ground, flight, and space system operations.

LEVERAGE OUR PROVEN ENGINEERING EXPERTISE TO **IMPLEMENT UNIQUE SOLUTIONS** THAT DELIVER UNPARALLELED RESULTS. Working with Kurtek gives you access to unique experience and expertise from across the global space industry. Our engineers have designed numerous flight and ground systems and can deliver comprehensive, end-to-end engineering support for your program's unique requirements.

To learn more about our capabilities, email us at info@kurtek.io or call our team at 703-943-7236.



Our wealth of experience and expertise allows us to design, integrate, and deploy customized solutions for a variety of mission profiles.

#### **DESIGN**

- Prepare logic designs, circuit layouts, and component selections for custom electronics.
- Utilize CAD modeling tools to create and analyze integrated parametric models of specialized parts, assemblies, and structures.
- Perform rapid prototyping to validate design concepts and demonstrate operational feasibility.

# **INTEGRATION**

- Source electronic components to manufacture and assemble printed circuit boards.
- Assemble custom cables, adapters, and harnesses for component connectivity and structural mounting.
- Integrate embedded software and firmware to control hardware elements and implement integrated component functionality.

### **DEPLOYMENT**

- Validate component and integrated system functionality and performance.
- Develop system mounting and packaging to meet transportation, mobile deployment, and field installation requirements.
- Plan and conduct environmental qualification testing for field, marine, flight, and space deployment.

We have successfully delivered results to government and commercial programs across the global space community.

# REPRESENTATIVE PROGRAMS

- Designed integrated, field-deployable mobile satellite communications and mission operations terminals to provide military operators with secure spacecraft tasking, networking, and data delivery capabilities.
- Designed and implemented integrated hardware and software systems to perform high-precision time-data correlation and multi-channel synchronization of encrypted data for cross-domain satellite operations.