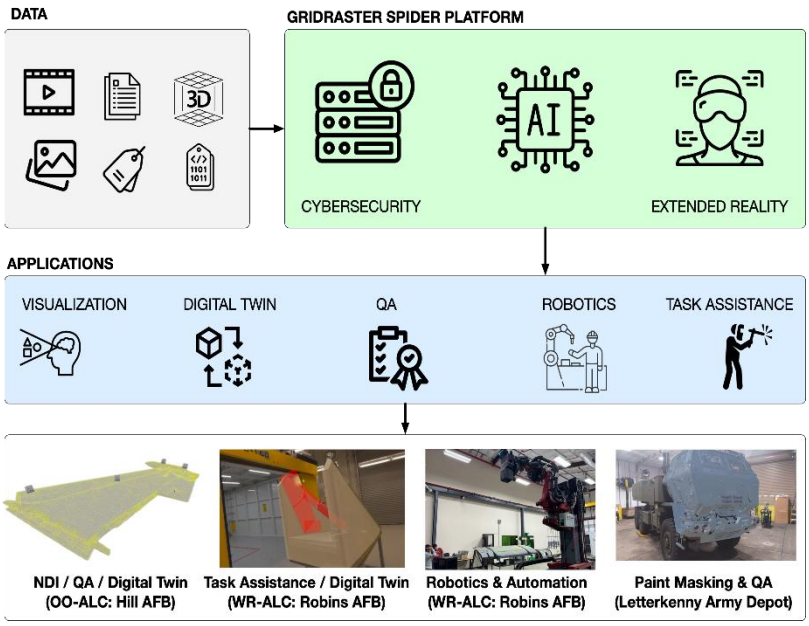
GRIDRASTER

SPIDER: *Powering Rapid Manufacturing and Sustainment using AI and XR*

Spatial Intelligence-based Dynamic Extended Reality (SPIDER) is a purpose-built breakthrough technology that enables modernization of the manufacturing and sustainment workflows in industrial environments, using software driven automation, artificial intelligence that enables fast and accurate 3D spatial mapping, part localization and tracking, active task assistance, and accurate 3D modeling using COTS XR devices.



Key Capabilities

- Fast and accurate AI-driven Automatic **Large-Area Scanning**
- Fast and accurate **object localization and alignment**, reducing human errors and accelerating maintenance processes
- Real-time **defect detection and mapping** for enhanced quality of sustainment tasks
- **Automating robotic repairs** to accelerated operations
- Providing **active task assistance** to support workforce enablement and overcome skill gap

Applications

- Robotic Repairs – painting, de-painting, griding, grit blast and others (Warner Robins ALC)
- Non-Destructive Inspection (NDI) data visualization using 3D tactile sensors, Eddy current sensors, blue light scanner, X-ray assistance and others
- Active Task Assistance in Paint Operations, X-Rays, Wiring Harness installation, Inspection and more

For more Information, contact:

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Customers & Partners

U.S. AIR FORCE · DELTA · U.S. ARMY · NVIDIA · SFSA · ARM ADVANCED ROBOTICS FOR MANUFACTURING · SPACE FORCE · CLICK BOND · NAVSEA NAVAL SEA SYSTEMS COMMAND · LOCKHEED MARTIN

Awards & Recognition

- 2024 USAF STRATFI
- 2024 Defense Manufacturing Technology Achievement Award
- 2024 OIB Modernization Challenge Winner
- 2026 Army xTech Award
- Multiple SBIR Phase III contracts