The Space Division at Dynetics, Inc., headquartered in Huntsville, Ala., provides flexible flight hardware development from low-cost prototypes through complete human-rated solutions. Dynetics Space Division’s capabilities include propulsion systems, small satellite development, mechanical and propulsion testing, system integration and assembly, mission design and vehicle sizing and vehicle structure design and manufacturing.

About Dynetics
Dynetics, a wholly owned subsidiary of Leidos, provides responsive, cost-effective engineering, scientific, IT solutions to the national security, cybersecurity, space, and critical infrastructure sectors. Our portfolio features highly specialized technical services and a range of software and hardware products, including components, subsystems, and complex end-to-end systems. The company of more than 2,500 employees is based in Huntsville, Ala., and has offices throughout the U.S. For more information, visit www.dynetics.com.

Space Division Key Facts
- NASA Glenn Research Center’s Large Business Prime Contractor of the Year
- NASA contractor for Space Launch System’s Universal Stage Adapter (USA)
- Built the NASA Space Launch System’s Core Stage Pathfinder
- Developed low-cost, full-scale SLS Advanced Booster Cryogenic demonstration tank
- Designed the Carbon Dioxide Scrubbers and Laser Air Monitoring System (LAMS) for NASA Orion program
- Power and propulsion element for NASA’s Lunar Gateway, enabling future expeditions to Mars
- Innovating a new human lunar lander prototype for NASA’s Artemis program
- Lonestar Small Satellite Developer for SMDC
- Certified to build NASA, DoD, and commercial flight hardware
- More than 500,000 sq. ft. of research and development facilities in North Alabama
- New Aerospace Structures Complex in Decatur, Alabama

Innovative, responsive, and affordable solutions from subcomponents to full system
Dynetics space capabilities include:

**Propulsion systems**
Our expertise in design, analysis, systems engineering, integration, manufacturing, and test provides our customers with full-spectrum support for launch vehicles, missile systems, and spacecraft. We have experience with most rocket propellants, including:
- Liquid and gaseous oxygen, methane and hydrogen
- Propane and ethane
- Nitrous oxide and hydrogen peroxide
- HTPB and various solid and hybrid fuels
- HAN (AF-315E) and Hydrazine

**Mechanical and propulsion testing**
We have the experience, capabilities, and facilities to provide rapid, cost-effective propulsion, mechanical, and environment testing solutions for our customers.
- Propulsion testing of up to 50,000-lbf thrust-class engines and stages, including liquids, solids, hybrids, and gases; hypergolic storable propellants; and green propellants
- Mechanical testing of pneumatic and hydraulic systems, including cryogenics to hot gases, structural development and qualification, and proof and burst
- Environment testing, including vibration, temperature cycling, and thermal shock and vacuum

**Mission design and vehicle sizing**
We offer extensive mission design, advanced concepts, and vehicle sizing capabilities to meet customers’ needs.
- Mission concept studies
- Spacecraft and launch concept development
- Vehicle sizing, configuration, and performance modeling and simulation
- Trajectory and orbital modeling and analysis
- Constellation design and optimization

**System integration and assembly**
We provide systems engineering, AI&IT, operations, and program management support across all system elements.
- Human-rated mechanical components
- Build-to-print assemblies
- Large aerospace structures

**Vehicle structure design and manufacturing**
From concept development through low-volume manufacturing, Dynetics provides comprehensive design, analysis, and manufacturing solutions.
- Aerospace structural components and assemblies
- Towed aerial targets
- Assembly tools
- Ground support equipment

**Small satellite development and manufacturing**
Dynetics offers low-cost, rapid-response, and end-to-end small satellite development capabilities.
- Bus, subsystem, and flight software development
- Manufacturing, assembly, integration, and test
- Qualification testing and certification of flight readiness
- Launch system and payload integration
- Missions operations support and sustaining engineering