



# Space Technology Game Changing Development Advanced Manufacturing Technology Project

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NASA is committed to revitalizing and transforming its already highly advanced manufacturing technologies. This effort will enable development of more capable and lower-cost space missions and launch vehicles, to the benefit of all NASA's science, engineering and spaceflight endeavors. Additionally, many of these advanced manufacturing techniques and tools will be adapted and transferred to benefit American businesses, bolstering the work of industry and the nation's manufacturing sector as a whole.

The Advanced Manufacturing Technology (AMT) project, managed by NASA's Marshall Space Flight Center in Huntsville, Ala., includes active research and development efforts at multiple NASA field centers around the nation. AMT encompasses a range of development, testing and implementation activities intended to dramatically advance the state of the art in NASA manufacturing and enabling technologies.

The project seeks to develop innovative materials and manufacturing technologies and improve those already in widespread use; leverages high-tech advances in computing to improve computer-based modeling of hardware, components and systems; and pursues dramatic improvement in the areas of automation, sensing, networking and more. A critical element of the work is the digital integration of disciplines including materials, design and manufacturing. In every case, NASA seeks game-changing results that will improve affordability, enhance capability and reduce schedule and cost of programs and missions.

Specifically being addressed by key development and maturation efforts within the project are technology gaps in such critical areas as composites, metals, additive manufacturing, environmental solutions, model-based tools and inspection of delivered parts, elements, components and systems.

The Game Changing Development (GCD) Program investigates ideas and approaches that could solve significant technological problems and revolutionize future space endeavors. GCD projects develop technologies through component and subsystem testing on Earth to prepare them for future use in space. GCD is part of NASA's Space Technology Mission Directorate.

For more information about GCD, please visit <http://gameon.nasa.gov/>

