NASA SPACE TECH & SMALL SPACECRAFT

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CHANGING THE PACE OF SPACE

SELECT SPACE TECH SMALL SPACECRAFT ACTIVITIES

SMALL SPACECRAFT TECHNOLOGY PROGRAM

- Small Spacecraft Technology Development
- Small Spacecraft Capability Demonstration Missions

FLIGHT OPPORTUNITIES PROGRAM

- Suborbital Flight Testing and Capability Development

SMALL BUSINESS INNOVATION RESEARCH

- Small Spacecraft Technology Development Subtopics
- Small Launch Vehicle Technology Development Subtopic

SMALL SPACECRAFT SYSTEMS VIRTUAL INSTITUTE

(Space Tech & Science)

- Engagement with the Small Spacecraft Community

CUBESAT LAUNCH INITIATIVE

(Exploration w/ support from Space Tech & Science)

- Flight Opportunities to ISS and Earth Orbit

EXPLORE SPACE TECH

WITH SMALL SPACECRAFT

The Small Spacecraft Technology program expands the ability to execute unique missions through rapid development and demonstration of capabilities for small spacecraft applicable to exploration, science and the commercial space sector.

LEARN MORE: WWW.NASA.GOV/TECHNOLOGY

EXPLORE SPACE TECH

THROUGH SUBORBITAL FLIGHT

The Flight Opportunities program facilitates rapid demonstration of promising technologies for space exploration, discovery, and the expansion of space commerce through suborbital testing with industry flight providers

LEARN MORE: WWW.NASA.GOV/TECHNOLOGY

Photo Credit: Blue Origin

STMD SMALL SPACECRAFT TECHNOLOGY CAPABILITY AREA

NASA is pursuing rapid identification, development, and testing of capabilities that exploit agile spacecraft platforms and responsive launch capabilities to increase the pace of space exploration, scientific discovery, and the expansion of space commerce. These emerging capabilities have the potential to enable new mission architectures, enhance conventional missions, and promote development and deployment on faster timelines. This will, in turn, allow NASA to achieve its objectives at significantly lower programmatic risk and cost than traditional approaches.

SMALL SPACECRAFT TECHNOLOGY INVESTMENT PLAN

MOON *to* MARS

Exploration Architectures for Human Lunar Return, Sustained Human Presence, & First Human Mars Expedition

Small spacecraft afford an increasingly capable platform to precede and accompany human explorers to the Moon, Mars, and other destinations to scout terrain, characterize the environment, identify risks, and prospect for resources. Distributed systems of small spacecraft can responsively provide cost-effective communications, monitoring, and inspection infrastructure for human exploration missions and cislunar commercial activity.

SOLAR SYSTEM & BEYOND

Scientific Discovery Architectures for Earth, Planetary, Heliophysics, & Astrophysics

The affordability and speed of small spacecraft allows more missions to more destinations of scientific interest. Additionally, the use of small spacecraft as affordable distributed systems can enable new science measurements in deep space and around planetary bodies that are not attainable using traditional approaches

SPACE TECH

Technology Demonstration, Commercial, and National Security Architectures

NASA's overarching technology goals for its engagement in the small spacecraft ecosystem are to enable rapid and more affordable missions for exploration and discovery while facilitating the expansion of space commerce.


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