



# Small Business Technology Development Opportunities with NASA

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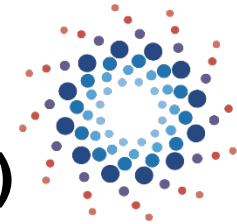
NASA Kennedy Space Center



# SBIR/STTR: 3-Phase Program

- **Phase 1**
  - **\$125K**
  - **Feasibility study**
  - **Period of Performance: SBIR - 6 months; STTR - 13 months**
- **Phase 2**
  - **\$750K**
  - **Technology Development of a Prototype**
  - **Period of Performance: 2-Year Contract**
- **Phase 3**
  - **Requires the use of non-SBIR Program funds**
  - **Technology Infusion/Commercialization Stage**
  - **No limit to number of awards, duration, or dollar value**

# The SBIR and STTR Programs



**SBIR · STTR**  
America's Seed Fund™  
POWERED BY NASA

## **Small Business Innovation Research (SBIR)**

Small Business set-aside program for Federal R&D – with potential for commercialization

## **Small Business Technology Transfer (STTR)**

A sister set-aside program facilitates cooperative R&D between small business concerns and U.S. research institutions – with potential for commercialization

NASA's SBIR and STTR programs have awarded **more than \$3.3 billion** to research-intensive American small businesses

Engineers and scientists from **more than 12,000** small businesses in all 50 States, DC and Puerto Rico have participated

# Space Technology Pipeline

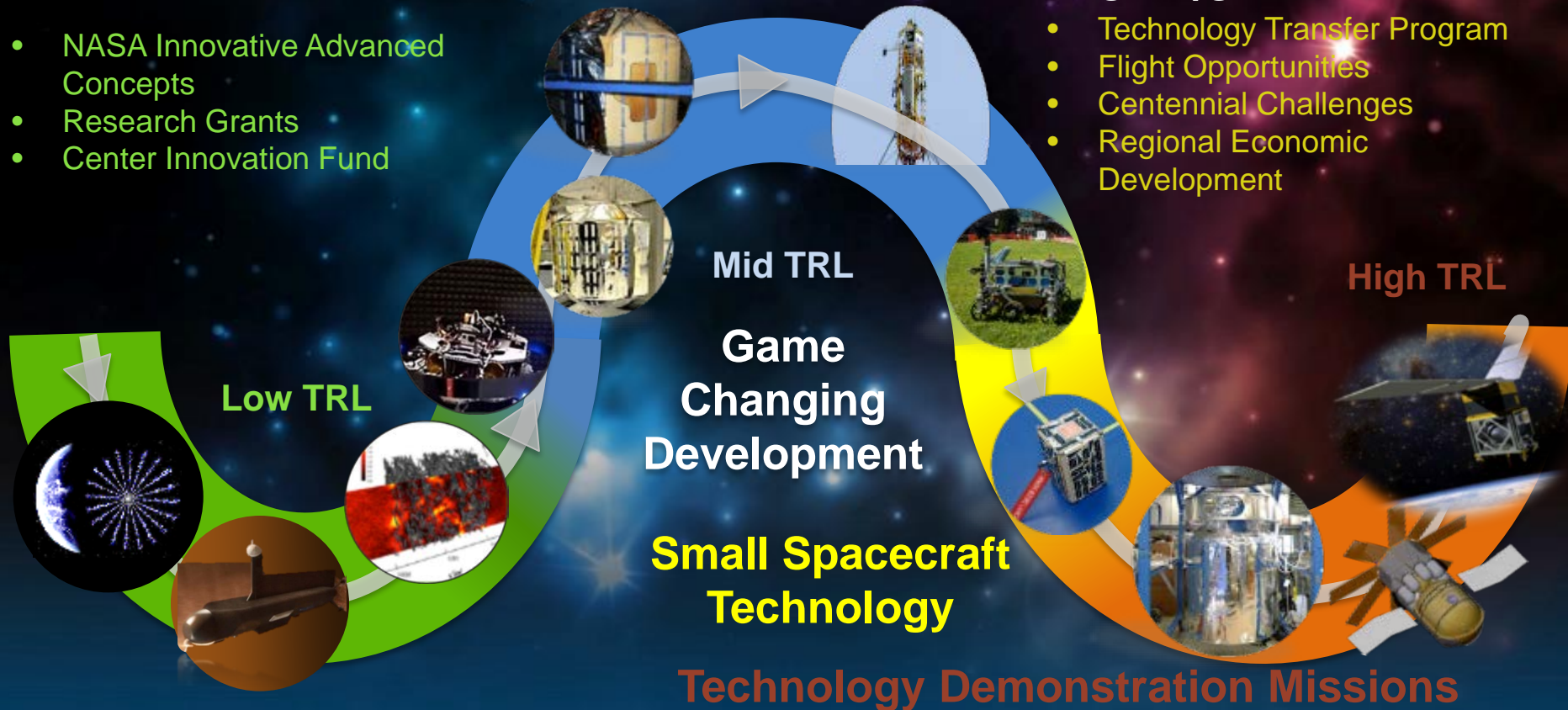


## Early Stage

- NASA Innovative Advanced Concepts
- Research Grants
- Center Innovation Fund

## Commercial Partnerships

- SBIR/STTR
- Technology Transfer Program
- Flight Opportunities
- Centennial Challenges
- Regional Economic Development



TECHNOLOGY PIPELINE

# SBIR Technologies on Mars

**Yardney Technical Products**  
*Lithium ion batteries*

**Creare**  
*Space-qualified vacuum pump*

**Starsys Research, Boulder, CO**  
*Gearboxes for robotic arm*

**Honeybee Robotics**  
*Dust removal tool*

**GammaTech**  
*Software for rover operations*

**inXitu**  
*Chemistry and Mineralogy experiment (CheMin) instrument*

# NASA SBIR/STTR Manufactures Onboard the ISS

Where Will Your Idea Take Us?



# Learning about NASA's Needs



## Focus Areas

NASA's research subtopics are organized by "Focus Areas" that group interests and related technologies.

- **Identify** the Area(s) closest to your innovation/idea
- **Go** to our website to research
- **Prepare to write** a proposal tailored to NASA's needs

<https://sbir.nasa.gov/solicitations>

## 2018 Focus Areas

1. In-Space Propulsion Technologies	12. Entry, Descent and Landing Systems
2. Power and Energy Storage	13. Information Technologies for Science Data
3. Autonomous Systems for Space Exploration	14. In-Space and Advanced Manufacturing
4. Robotic Systems for Space Exploration	15. Lightweight Materials, Structures, Assembly, and Construction
5. Communications and Navigation	16. Ground and Launch Processing
6. Life Support and Habitation Systems	17. Thermal Management Systems
7. Human Research and Health Maintenance	18. Air Vehicle Technology
8. In-Situ Resource Utilization	19. Integrated Flight Systems
9. Sensors, Detectors and Instruments	20. Airspace Operations and Safety
10. Advanced Telescope Technologies	21. Small Spacecraft Technologies
11. Spacecraft and Platform Systems	22. ISS Utilization and Microgravity Research



# SBIR.NASA.GOV



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2018 SOLICITATION

PHASE II ANNOUNCEMENT

GETTING STARTED

SUCCESS STORIES

SBIR NEWS

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Learn

2

Prepare

3

Apply

## Getting Started: Interactive Participation Guide

New to SBIR or STTR? In the process, but need additional information?

The interactive participation guide helps you navigate through all parts of the SBIR/STTR process