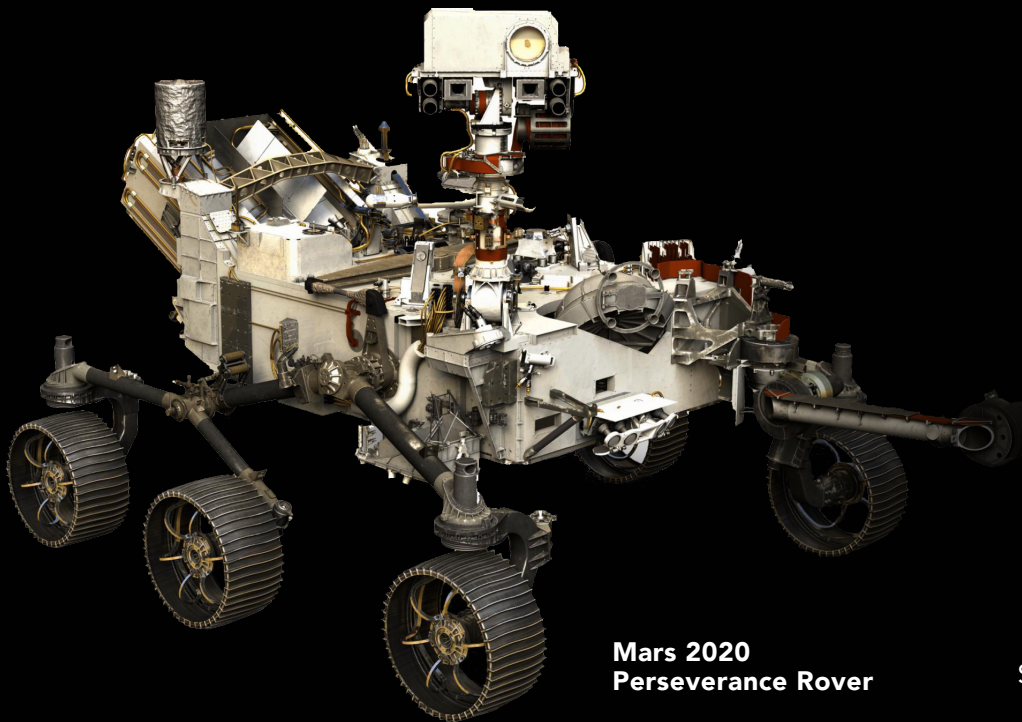




# NASA SBIR/STTR Program

NASA OFFICE OF PROCUREMENT | VIGNETTE



Mars 2020 Perseverance Rover

## Who/Where

Space Technology Mission Directorate (STMD) provides overall policy direction for NASA's Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. The SBIR/STTR Program Management Office (PMO) at Ames Research Center (ARC) in California operates the programs in conjunction with Mission Directorates and Centers. Award instruments supporting SBIR/STTR are issued and administered by the NASA Shared Services Center (NSSC) in Mississippi.

## What

SBIR/STTR funds the research, development, and demonstration of innovative technologies that fulfill NASA needs and have significant potential for successful commercialization. Research topics cover the breadth of NASA's work in aeronautics, exploration systems development, science, space operations, and space technology. Since its first SBIR award nearly 40 years ago, SBIR/STTR has provided funding in every state, including Puerto Rico and DC—investing around \$200M a year in America's small businesses.

The goal of SBIR/STTR is to progress through the phases to Phase III where innovative products, processes, or services are infused into a NASA mission and/or commercialized.

### NASA SBIR/STTR Phases

#### Phase 1:

Idea Generation

**\$150,000**

SBIR 6 months  
STTR 13 months

#### Phase 2:

Prototype Development

**\$850,000**

24 months

#### Phase 3:

Infusion Commercialization

**Non-SBIR funding**

\*NASA SBIR/STTR currently has in place several initiatives for supporting its small business partners past the basic Phase I and Phase II elements of the program that emphasize opportunities for infusion/commercialization

## When

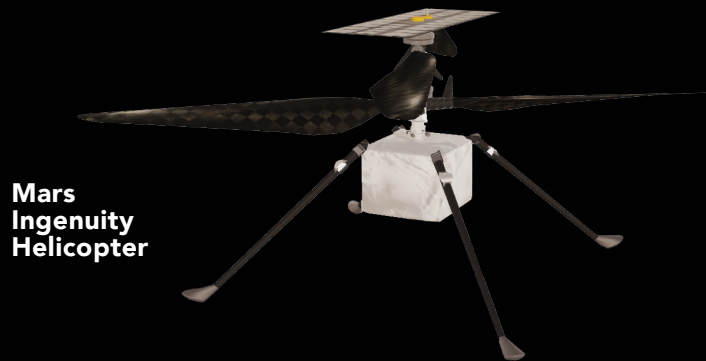
In 2007, to create streamlined processes and consistency with contract development and management, NASA delegated negotiation, award, and administration of all Phase I and Phase II contracts to NSSC. Effective October 2021, NSSC is also responsible for all Phase III contracts.

## How

NASA awards hundreds of SBIR/STTR contracts every year, consistently meeting mandated deadlines and performing well in GAO audits. These accomplishments are due to intentional nurturing of the collaborative partnership between the SBIR/STTR PMO, Office of Procurement (OP), and NSSC; thoughtful application of administrative and technology solutions; and focus on communication, flexibility, innovation, and continuous improvement.

### Highlights include:

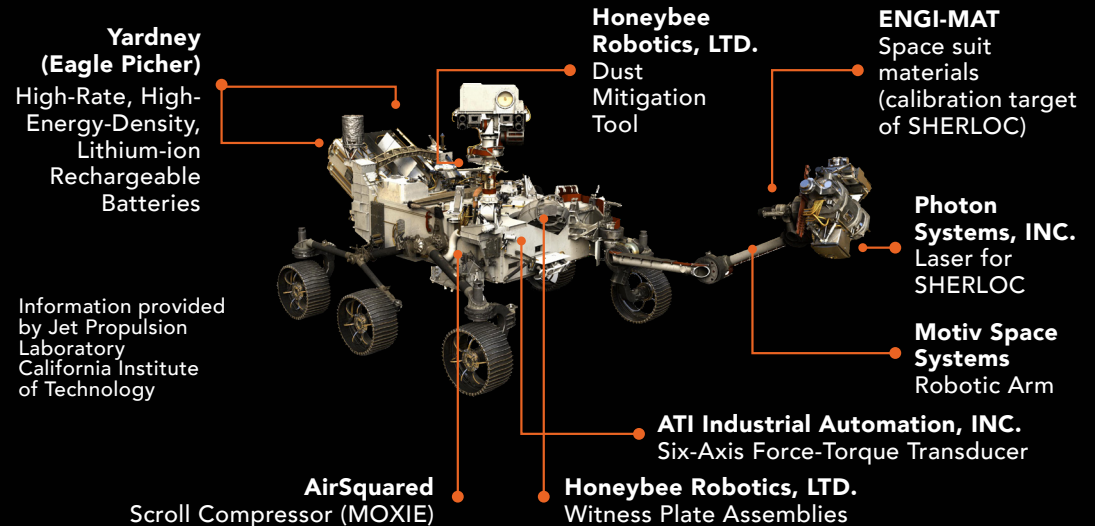
- Proposal submission/review/selection and contract negotiation/administration are consolidated within one electronic system, allowing all activities to be seamless and secure across all Centers and NSSC.
- SBIR/STTR has a dedicated team of contracting officers at NSSC, with extra staff added during peak times, for example during the annual Phase I solicitations, when 1600+ proposals are received at one time with 350+ selected for negotiation of award.
- PMO staff expanded in 2017 to include a Procurement Advisor position that leverages experience as a NASA contracting officer to liaise with OP and NSSC and maintain communication.
- Intelligent Automation Services enable key parts of the process, such as adding SAM.gov information to the contract file.
- Standard processes and templates such as model contracts and streamlined negotiation documentation make processes consistent and efficient.



## Why

Merging the overarching potential of small businesses with the legendary intellect of NASA supports accomplishment of NASA's many ambitious missions and improves life on Earth, in areas like health care, climate change, and emergency response.

For example, these eight NASA Perseverance Rover technologies were each developed, in part, through NASA SBIR/STTR.



In addition, below are some examples of SBIR/STTR-derived technologies tested on the International Space Station for our benefit here on Earth.

A lidar (light detecting and ranging) system for monitoring the effects of climate change by studying cloud and aerosol properties in Earth's atmosphere (Fibertek, Inc.; Michigan Aerospace Corp.)

A system to manufacture multilayered artificial retinas to treat retinal degenerative diseases. The conditions of space improve the quality of the manufacturing process (LambdaVision)

A fine water mist fire extinguisher that is a non-toxic substitute for CO2 extinguishers, making it a safe alternative for spacecraft, avion and general use (ADA Technologies)

An ultra-violet sensor for improved detection of ocean-based oil spills and fires in remote areas; the technology's integrity can be validated in the harsh conditions of space (Ozark Integrated Circuits, Inc.)

The SBIR/STTR Program also benefits the American taxpayer through the innovations created, especially those that lead to commercial use. You can read more SBIR/STTR success stories at <https://sbir.nasa.gov/success-stories>, <https://sbir.nasa.gov/blog>, and <https://spinoff.nasa.gov/search/node?keys=sbir%20or%20sttr>.