Presentation:
Strategic alignment of your research interest to SBIR/STTR subtopics

This presentation will provide tips on how to focus your research interests on the topics/subtopics that gives your organization the best opportunity to highlight your strengths which provides the best opportunity for a strong proposal.
Suggested Strategies For Potential Proposers

• Understand how your expertise can address NASA’s technology needs
• Review previous solicitations
• Properly plan your proposal development process
• When the new solicitation is released, review it thoroughly

• Establish relationships with small businesses
• Make sure your proposal is compliant with the solicitation
• Work on your commercialization plan while your proposed idea is incubating
Review previous solicitations

NASA SBIR Website

Select “Solicitation”

Press Release Mar 2016
2015 Phase II Selection Announcement

NASA Selects American Small Business, Research Institution Projects for Continued Development
Solicitation Location

Solicitations

The SBIR and STTR Solicitations are produced annually in partnership with NASA’s Mission Directorates and Centers to focus on the Agency’s priority mission needs. These needs are organized under topics and subtopics within the Solicitation. Solicitations for both programs are available online only.

Open and previous Solicitations are accessible below:

**FY 2016 SBIR/STTR Solicitation**

Open from November 12, 2015 to February 01, 2016

Selections scheduled to be announced on April 28, 2016

Subscribe to the NASA SBIR/STTR Newsletter, The Concept, to receive information on upcoming Solicitation dates and other NASA SBIR/STTR news.
Solicitation Topics

The SBIR Program Solicitation topics and subtopics are developed by the NASA Mission Directorates and Centers in coordination with the NASA SBIR/STTR programs.

There are four Mission Directorates (MDs):

- **Aeronautics Research**
  NASA’s Aeronautics Research Mission Directorate (ARMD) expands the boundaries of aeronautical knowledge for the benefit of the Nation and the broad aeronautics community, which includes the Agency’s partners in academia, industry, and other government agencies. ARMD is conducting high-quality... [Read more]

- **Human Exploration and Operations**
  The Human Exploration and Operations Mission Directorate (HEOMD) is chartered with the development of the core transportation elements, key systems, and enabling technologies required for beyond-Low Earth Orbit (LEO) human exploration that will provide the foundation for the next half-century of... [Read more]

- **Science**
  NASA leads the nation on a great journey of discovery, seeking new knowledge and understanding of our planet Earth, our Sun and solar system, and the universe out to its farthest reaches and back to its earliest moments of existence. NASA’s Science Mission Directorate (SMD) and the nation’s... [Read more]

- **Space Technology**
  The Space Technology Mission Directorate (STMD) enables a new class of missions by drawing on talent from the NASA workforce, academia, small businesses, and the broader space enterprise to deliver innovative solutions that dramatically improve technological capabilities for NASA and the Nation. The... [Read more]
Example: 2015 SMD SBIR Subtopics

### TOPIC S1 Sensors, Detectors, and Instruments
- S1.01 Lidar Remote Sensing Technologies
- S1.02 Microwave Technologies for Remote Sensing
- S1.03 Sensor and Detector Technology for Visible, IR, Far IR and Submillimeter
- S1.04 Detector Technologies for UV, X-Ray, Gamma-Ray and Cosmic-Ray Instruments
- S1.05 Particles and Field Sensors and Instrument Enabling Technologies
- S1.06 In Situ Sensors and Sensor Systems for Lunar and Planetary Science
- S1.07 Airborne Measurement Systems
- S1.08 Surface & Sub-surface Measurement Systems
- S1.09 Atomic Interferometry
- S1.10 Cryogenic Systems for Sensors and Detectors

### TOPIC S2 Advanced Telescope Systems
- S2.01 Proximity Glare Suppression for Astronomical Coronagraphy
- S2.02 Precision Deployable Optical Structures and Metrology
- S2.03 Advanced Optical Systems and Fabrication/Testing/Control Technologies for EUV/Optical and IR Telescope
- S2.04 X-Ray Mirror Systems Technology, Coating Technology for X-Ray-UV-OIR, and Free-Form Optics

### TOPIC S3 Spacecraft and Platform Subsystems
- S3.01 Power Generation and Conversion
- S3.02 Propulsion Systems for Robotic Science Missions
- S3.03 Power Electronics and Management, and Energy Storage
- S3.04 Unmanned Aircraft and Sounding Rocket Technologies
- S3.05 Guidance, Navigation and Control

### TOPIC S4 Robotic Exploration Technologies
- S4.01 Planetary Entry, Descent and Landing and Small Body Proximity Operation Technology
- S4.02 Robotic Mobility, Manipulation and Sampling
- S4.03 Spacecraft Technology for Sample Return Missions
- S4.04 Extreme Environments Technology
- S4.05 Contamination Control and Planetary Protection

### TOPIC S5 Information Technologies
- S5.01 Technologies for Large-Scale Numerical Simulation
- S5.02 Earth Science Applied Research and Decision Support
- S5.03 Algorithms and Tools for Science Data Processing, Discovery and Analysis, in State-of-the-Art Data Environments
- S5.04 Integrated Science Mission Modeling
- S5.05 Fault Management Technologies

### TOPIC S20 SMD Select Topics *
- S20.01 Novel Spectroscopy Technology and Instrumentation
- S20.02 Advanced Technology Telescope for Balloon and Sub-Orbital Missions
Subtopics by Technology Area

Select the Technology Area

Views by Technology Area

Views by Technology Taxonomy

Download Solicitation

Cover
Noteworthy Changes
Chapter 1, Program Description
Chapter 2, Definitions
Chapter 3, Proposal Preparation Instructions and Requirements
Chapter 4, Method of Selection and Evaluation Criteria
Chapter 5, Considerations
Chapter 6, Submission of Proposals
Chapter 7, Scientific and Technical Information Sources
Chapter 8, Submission Forms and Certifications
Chapter 9, Research Topics for SBIR and STTR

Appendix A:
Technology Readiness Level (TRL) Descriptions
Appendix B:
NASA SBIR/STTR Technology Taxonomy
Appendix C:
SBIR/STTR and the Space Technology Roadmaps
Phase II Proposal Instructions
Amendments:
Amendment 0001 to the Solicitation
Amendment 0002 to the Solicitation

Search Text
Any Word All Words Exact Match Advanced

NASA SBIR and STTR 2015 Program Solicitations
Opened on November 14, 2014 and closed on January 28, 2015
Select the Technology area of interest
Subtopics by Technology Area

Select the Subtopic Technology area of interest

- **S1.01 Lidar Remote Sensing Technologies**
  - Lead Center: LaRC
  - Participating Center(s): GSFC, JPL
  - NASA recognizes the potential of lidar technology in meeting many of its science objectives by providing new capabilities or offering enhancements over current measurements of atmospheric and topographic parameters from ground, airborne, and space-based platforms. To meet NASAs requirements for... Read more>>

- **S1.02 Microwave Technologies for Remote Sensing**
  - Lead Center: JPL
  - Participating Center(s): GSFC
  - NASA employs active (radar) and passive (radiometer) microwave sensors for a wide range of remote sensing applications (for example, see http://www.nap.edu/catalog/11820.html). These sensors include low frequency (less than 10 MHz) sounders to G-band (160 GHz) radars for measuring precipitation and... Read more>>

- **S1.09 Atomic Interferometry**
  - Lead Center: JPL
  - Participating Center(s): GSFC
  - Recent developments of laser control and manipulation of atoms have led to new types of precision inertial force and gravity sensors based on atom interferometry. Atom interferometers exploit the quantum mechanical wave nature of atomic particles and quantum gases for sensitive interferometric... Read more>>

- **S1.10 Cryogenic Systems for Sensors and Detectors**
  - Lead Center: GSFC
  - Participating Center(s): ARC, JPL, KSC, MSFC
  - Cryogenic cooling systems often serve as enabling technologies for detectors and sensors flown on scientific instruments as well as advanced telescopes and observatories. As such, technological improvements to cryogenic systems further advance the mission goals of NASA through enabling performance... Read more>>
Understanding how your expertise can address NASA’s technology needs
Understanding NASA Needs

- **In Science – “Decadal Surveys” and NASA-developed implementation documents**
  - Planetary Science
  - Astronomy and Astrophysics
    - [http://science.nasa.gov/media/medialibrary/2013/04/15/secure-ImpPlan_R2_15Apr2013.pdf](http://science.nasa.gov/media/medialibrary/2013/04/15/secure-ImpPlan_R2_15Apr2013.pdf)
  - Heliophysics (Solar and Space Physics)
  - Earth Science
    - [http://esto.nasa.gov/](http://esto.nasa.gov/)

- **In Aeronautics Research**
  - National Aeronautics R&D Plan
    - [http://www.whitehouse.gov/sites/default/files/microsites/ostp/aero-rdplan-2010.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/aero-rdplan-2010.pdf)
  - Various Detailed NASA Aeronautics Research documents
    - [http://www.aeronautics.nasa.gov/programs.htm](http://www.aeronautics.nasa.gov/programs.htm)

- **In Human Research Program**
  - Human Research Roadmap
    - [http://humanresearchroadmap.nasa.gov](http://humanresearchroadmap.nasa.gov)
Additional Resources to Support SBIR/STTR R&D
NASA’s IP and non-patented software is available for use during an SBIR/STTR performance period

A non-exclusive, royalty free research license is available during the performance period

Software identified and requested under a SBIR/STTR contract must request a Software Usage Agreement

Increase private-sector commercialization of innovations derived from Federal research and development funding

TAV and IP can be found at http://technology.nasa.gov
Gain access to NASA's patented technology portfolio
Search for existing Patented Technologies.
Contact a NASA Technology Manager to discuss Licensing or Partnership options.

Infrared sensors

139 results found for Infrared sensors (page 1).

Extreme Heat Resistant Ultraviolet and Infrared Sensor

NASA Langley Research Center has developed an ultraviolet and infrared radiation sensor system that can operate in extreme heat environments. The system was originally developed to monitor temperature and radiation during spacecraft re-entry. Thus, the design is survivable in a vacuum and can...

Novel Superconducting Transition Edge Sensor

NASA technologists have developed a novel, superconducting transition edge sensor (TES). Such TES devices are thermometers that are widely used for particle detection, e.g., X-rays, infrared photons, atoms, molecules, etc. Energy resolution is chiefly important in superconducting transition...

Functional Near-Infrared Spectroscopy (fNIRS) Cognitive Brain Monitor

Innovators at NASA’s Glenn Research Center have developed a Functional Near-Infrared Spectroscopy (fNIRS) Cognitive Brain Monitor with improved signal processing to obtain more accurate data. fNIRS has been used successfully to monitor cognitive states and activity, and Glenn’s system can be...

Patent of interest
Lastly…

• Only contact NASA SMEs about our SBIR/STTR programs during our “Open Season”. We are currently in a Blackout Period.

• Refer to online resources for general SBIR/STTR questions (SBIR.NASA.gov or SBIR.gov)

• Ask direct technical questions with you meet with a NASA Scientist/Engineer/Program Manager
How To Contact Us

- **Online:** www.sbir.nasa.gov
- **NASA Help Desk:** 301.937.0888
- **Email:** sbir@reisystems.com