National Aeronautics and Space Administration

From Low Earth Orbit to Benefits on Earth

How small businesses use the International Space Station to improve life on our planet

Through the NASA Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) program, companies have used zero-gravity conditions to develop technologies that bring benefits back down to Earth.

The International Space Station (ISS) has been a unique testbed for scientific research and development since the first permanent resident crew boarded the station on November 2, 2000.

From health care to climate change and emergency response, here are a few SBIR/STTR-derived technologies tested on the ISS:

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. (VA) | fibertek.com
Michigan Aerospace Corp. (MI) | michiganaerospace.com

A system to manufacture multilayered artificial retinas to treat retinal degenerative diseases; the conditions of space improve the quality of the manufacturing process

LambdaVision (CT) | lambdavision.com
Woman-led small business

A fine water mist fire extinguisher that is a non-toxic substitute for CO2 fire extinguishers, making it a safer alternative for spacecraft, aviation, and general commercial use

ADA Technologies, Inc. (CO) | adatech.com

An ultraviolet 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. (AR) | ozarkic.com

A 3-D bioprinter that uses the microgravity conditions of space to print human tissue, which could be used for skin grafts and transplants

Techshot, Inc. (IN) | techshot.space

Join our diverse community of pioneers who are researching and developing technologies to change the world.

The NASA SBIR/STTR program provides more than just early-stage funding – we open doors to a community that awaits you.

Learn more at **sbir.nasa.gov**