

NASA Space Technology Inventions and Products



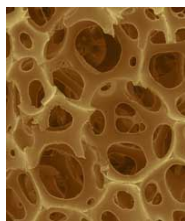
By Cristen Conger

The question is asked, "What has NASA space travel and exploration ever done for me?" Many products have been developed as a result of space exploration, space travel and space technology. Here are just a few of the hundreds of devices and inventions that have been developed from knowledge gained with NASA space engineering.



Smoke Detectors Where there's smoke, there's fire. NASA engineers knew that simple fact when they were designing Skylab in the 1970s. Skylab was the first U.S. space station, and the astronauts would need to know if a fire had started or if noxious gases were loose in the vehicle. Teaming up with Honeywell Corporation, NASA invented the first adjustable smoke detector with different sensitivity levels to prevent false alarms.

Scratch-resistant Lenses Because of dirt and particles found in space environments, NASA needed a special coating to protect space equipment, particularly astronaut helmet visors. Recognizing an opportunity, the Foster-Grant sunglasses manufacturer licensed the NASA technology for its products. The special plastics coating made its sunglasses ten times more scratch-resistant than uncoated plastics



Memory Foam NASA -helps some people sleep better at night. Temper foam found in brand mattresses and similar brands was originally developed for space flight and later repackaged for the home. The open cell polyurethane-silicon plastic was created for use in NASA aircraft seats to lessen impact during landings.



Water Filters Astronauts needed a way to cleanse water they take up into space, since bacteria and sickness would be highly problematic. Water filter technology had existed since the early 1950s, but NASA wanted to know how to clean water in more extreme situations and it clean for longer periods of time.

Invisible Braces

Teenagers cringe at the prospect of braces. Getting one's teeth straightened used to mean enduring a mouth full of metal, but not so anymore. Invisible braces hit the market in 1987, and now there are multiple brands. Invisible braces are made of translucent polycrystalline alumina (TPA). A company called Ceradyne developed TPA in conjunction with NASA Advanced Ceramics Research to protect the infrared antennae of heat-seeking missile trackers.



Have you ever used any of these “spin-offs” of NASA’s research?

- TV Satellite Dish
- Medical Imaging (Cat Scans)
- Telescopes (that look for cancer)
- Aerodynamic Wheels
- Thermal Gloves and Boots
- Space Pens (That write upside down)
- Shock Absorbing Helmets
- Ski Boots
- Failsafe Flashlight
- Invisible Braces for Teeth
- Joystick Controllers
- Advanced Plastics
- Enriched Baby Food
- Cardiac Pacemakers
- Fire-fighter suits
- Portable Cordless Vacuums
- Freeze-dried Food
- Aircraft anti-icing system

Sources: adapted from: <http://dsc.discovery.com/tv-shows/curiosity/topics/ten-nasa-inventions.htm>
http://en.wikipedia.org/wiki/NASA_spin-off_technologies