



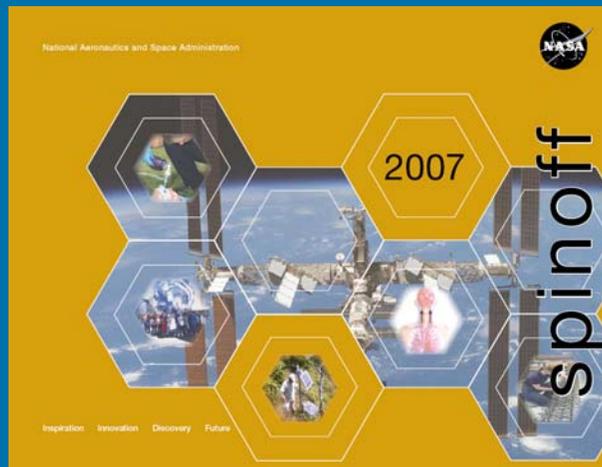
Our exciting topic for today is NASA Spinoffs. Would anyone like to guess what a spinoff is?

# WHAT IS A SPINOFF?

- A. An annual magazine published by NASA.
- B. A product designed for NASA use and then commercialized, or marketed, and sold to the public.

Both are correct.

Let's learn more!



Spinoff is NASA's annual premiere publication featuring successfully commercialized NASA technology. For more than 40 years, the NASA Commercial Technology Program has facilitated the transfer of NASA technology to the private sectors. The resulting commercialization has contributed to the development of commercial products and services in the fields of health and medicine, industry, consumer goods, computer technology, and environment. Through distribution and outreach activities, NASA technology has benefited global competition and the economy. Since 1976, Spinoff has featured between 40 and 50 of these commercial products annually.

# WHAT IS A SPINOFF?

The product or process

- Was designed for NASA use and then commercialized
- Used NASA technology
- Was significantly aided by NASA personnel contributions
- Created by ex-NASA employees
- Is result of a NASA patent license or waiver
- Was assisted by NASA, especially the Technology Transfer programs, which proved useful to industrial clients
- Was developed as a result of the NASA Small Business Innovation Research (SBIR) or Small Business Technology Transfer (STTR) Program

NASA engineers and scientists are creating new and exciting things every day. They are inventing. NASA also supports innovative research and supports small businesses with inventions. Criteria for being featured in Spinoff:

1. A product was designed for NASA use, to NASA specifications, and then commercialized.
2. A component or process involving NASA technology was:
  1. used in manufacturing the product.
  2. integral to the product's existence or commercialization.
  3. a design modification of an existing product.
3. NASA Center laboratory personnel made significant contributions to designers of the product, including the use of NASA facilities for testing purposes.
4. Successful entrepreneurial endeavors by ex-NASA employees whose technical expertise was developed while employed by NASA.
5. A product is commercialized as the result of a NASA patent license or waiver, including patents waived to the inventors.
6. Technology Transfer programs or activities contributed to the product development and commercialization (e.g., Tech Briefs, RTTCs, COSMIC, Applications Projects). Preferably, software examples will involve use of NASA-generated programs, and RTTC examples will permit identification of specific NASA technical information (e.g., reports) or other NASA assistance that was useful to the industrial clients.

# HISTORY OF SPINOFF



As a result of a 1958 congressional mandate, NASA, in 1962, created the Technology Utilization Program. It was supported by Technology Utilization Offices at each of the field centers and four Industrial Applications Centers (IACs). The number of IACs grew rapidly to seven by the early 1970s and ten in the early 1980s.

Early studies of Tech Briefs, the publication dedicated to informing the scientific community about available NASA technologies, and ongoing requests received for supporting information, indicated a strong need in the private sector for new technology to aid in the development of commercial products and services.

When spinoff products began to emerge from space technologies, NASA considered the possibility of an annual report to present at congressional budget hearings. The result was a black and white “Technology Utilization Program Report,” published in 1973, followed by another one in 1974. The technologies in these reports created interest in the technology transfer concept, its successes, and its use as a public awareness tool. The reports generated such keen interest by the public that NASA decided to make them into an attractive publication. Thus, the first four-color edition of Spinoff was published in 1976.

Each year since, a new issue has highlighted the transfer of NASA technology to the private sector. The Agency distributes copies to politicians, economic decision makers, company CEOs, academics, professionals in technology transfer, the news media, and the general public.

# NASA SPINOFF SITE



SCIENTIFIC AND TECHNICAL  
INFORMATION (STI)

+ Text Only Site  
+ Contact STI Help Desk  
+ Search the NTRS Database

+ WHAT IS STI?

+ GET HELP

+ REGISTER

+ SITE SEARCH

+ FEEDBACK

+ FAQ

+ STI Home  
+ Innovative Partnerships  
Program (IPP)



## Spinoff

Spinoff is NASA's annual premier publication featuring successfully commercialized NASA technology. For more than 40 years, the NASA Innovative Partnerships Program has facilitated the transfer of NASA technology to the private sector, benefiting global competition and the economy. The resulting commercialization has contributed to the development of commercial products and services in the fields of health and medicine, industry, consumer goods, transportation, public safety, computer technology, and environmental resources. Since 1976, Spinoff has featured between 40 and 50 of these commercial products annually. Spinoff maintains a searchable database of every technology published since its inception. If you think you have the makings of a spinoff, please contact us through the contributor form.

+ HISTORY OF SPINOFF

+ REQUEST A SPINOFF

+ BE IN SPINOFF

+ SPINOFF DATABASE

+ SPINOFF FAQ

+ CONTACT US

+ DISCLAIMER

## SPINOFF SPOTLIGHT

### Mission-Related Spinoffs

- + Apollo
- + International Space Station
- + Space Shuttle

### Related Links

- + NASA Home and City
- + History of Tech Transfer/  
Prospects for the Future
- + SBIR/STTR Hallmarks of  
Success Videos

### NASA FACT

NASA has been issued over 6,300 patents, nearly one in a thousand of all patents ever issued by the U.S. Patent Office (since 1790).



**Circulation-Enhancing Device Improves CPR**  
A small medical device developed to correct circulation problems for astronauts returning to Earth is now being used in CPR by emergency medical technicians.  
[+ Read More](#)



**Noninvasive Test Detects Cardiovascular Disease**  
Based on software designed to interpret spacecraft imagery, a simple and affordable system now allows doctors to use ultrasound to perform advanced, noninvasive heart monitoring.  
[+ Read More](#)



**'NASA Invention of the Year' Controls Noise and Vibration**  
The Macro-Fiber Composite, NASA's "Invention of the Year," is an innovative, low-cost piezoelectric device designed to control vibration, noise, and

## BACK ISSUES



+ Spinoff 2008

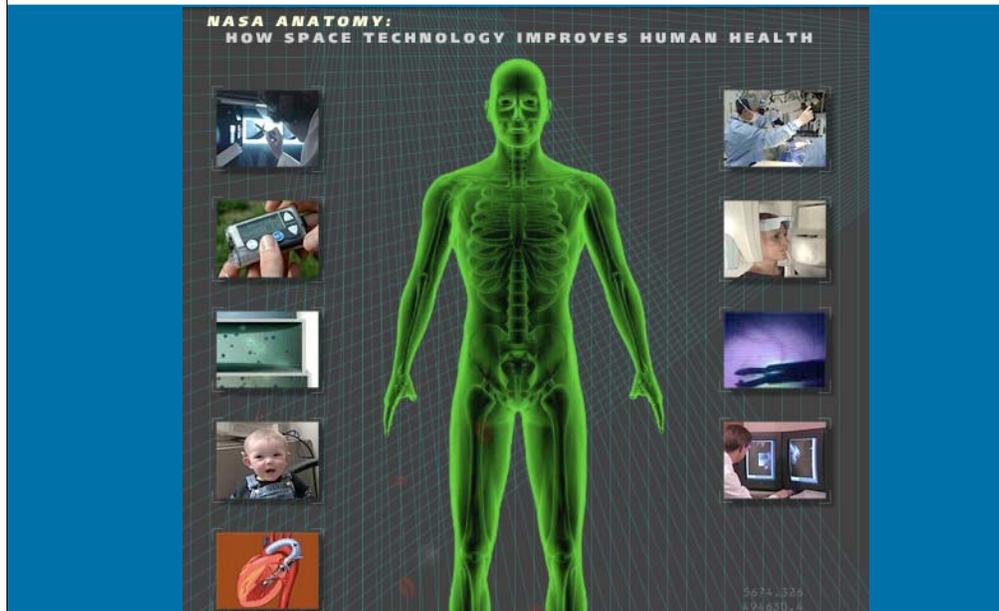


+ Spinoff 2005



Circle #2004      Circle #2005

# NASA IN YOUR LIFE



## Trace space back to you!

Have you ever wondered how space exploration impacts your daily life?  
Pick a starting point to see how space traces back to you.



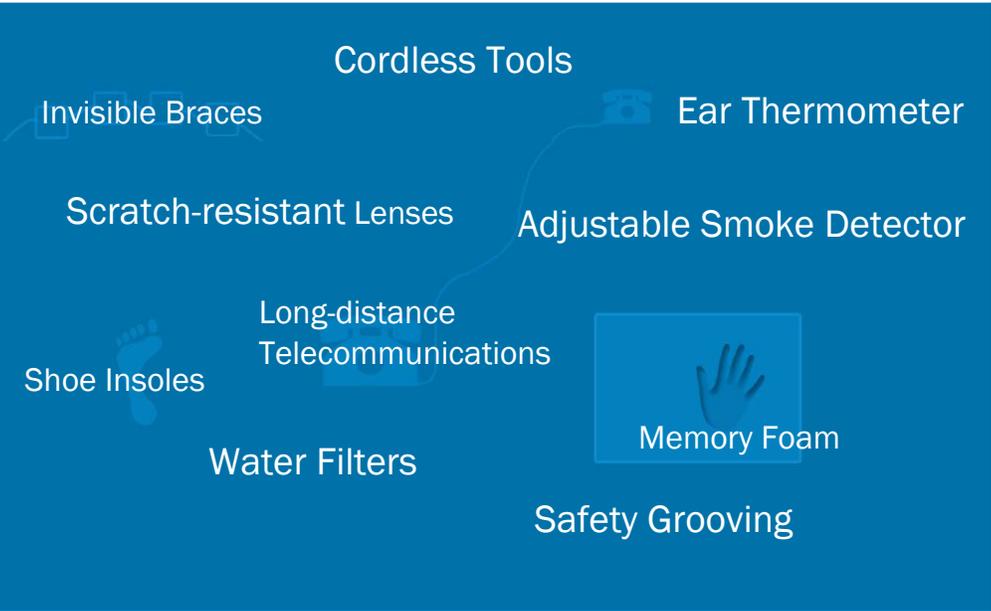
[NASA SPINOFF-RELATED ARCHIVE](#)

[NASA TECHNOLOGY IMPACT NEWS](#)

[NASA SPINOFF CHALLENGE](#)

Have you ever wondered how space exploration impacts your life? This interactive site will allow you to see many illustrations of inventions that we use in our world every day.

# 10 INVENTIONS



# SPINOFF DATABASE

- A database is a storage and organizational system.
- The Spinoff Database is searchable.
- You can narrow your searches by entering values in the different fields.

The screenshot shows the NASA Scientific and Technical Information (STI) website. At the top left is the NASA logo and the text 'SCIENTIFIC AND TECHNICAL INFORMATION (STI)'. To the right are links for '+ Text Only Site', '+ Contact STI Help Desk', and '+ Search the NTRS Database'. Below this is a navigation bar with links: '+ WHAT IS STI?', '+ GET HELP', '+ REGISTER', '+ SITE SEARCH', '+ FEEDBACK', and '+ FAQ'. On the left side, there is a sidebar with a dark background containing the text '+Spinoff Home', 'Spinoff', and a list of links: '+ HISTORY OF SPINOFF', '+ REQUEST A SPINOFF', '+ BE IN SPINOFF', '+ SPINOFF DATABASE', '+ SPINOFF FAQ', and '+ CONTACT US'. The main content area is titled 'SPINOFF DATABASE' and contains a table with the following data:

Issue	Title	Center	URL
2007	Sensor Network Provides Environmental Data	Ames Research Center	PDF
2007	Neurospinal Screening Evaluates Nerve Function	Johnson Space Center	PDF
2007	Treatment Prevents Corrosion in Steel and Concrete Structures	Kennedy Space Center	PDF
2007	Optics Program Simplifies Analysis and Design	Goddard Space Flight Center	PDF
2007	Design Application Translates 2-D Graphics to 3-D Surfaces	Glenn Research Center	PDF
2007	Hybrid Modeling Improves Health and Performance Monitoring	Dryden Flight Research Center	PDF
2007	Advanced Systems Map, Monitor, and Manage Earth's Resources	Goddard Space Flight Center	PDF
2007	Software Sharing Enables Smarter Content Management	Ames Research Center	PDF

Many NASA engineers must help to design, create, or use databases every day to look up important information, to reference data, and to keep others informed of the data they collect. The Spinoff Database is actually a very simple database compared to many.

# WHAT ARE THE FIELDS?

Search using any of the following fields:

Topic Search:

NASA Center:

Manufacturer:

State:

Category:

Spinoff Issue:

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Sort by:

Topic search is a key word field

NASA Center is a selectable drop down menu

The manufacturer is who is “commercializing” the product

The state, is obviously the US state

Category is another field that users can select from a drop-down menu

Spinoff Issue is a year, since the Spinoff magazine is only published once a year

Are there any other fields you wish they would have included (they being the database designers/developers)?

This database contains abstracts of all Spinoff articles published since 1976. Links to the full-text articles in PDF are also provided.

Inclusion in this database does not imply that the products are still commercially available. To check the availability of a product, contact the manufacturer using information provided within each entry. Similarly, inclusion does not imply NASA endorsement or validation of claims made by the companies regarding performance or effectiveness.

# SPACE TECHNOLOGY HALL OF FAME

*Celebrating 20 Years*  
SPACE TECHNOLOGY | HALL OF FAME®

HOME HISTORY INDUCTEES NOMINATE CONTACT

## History of the Space Technology Hall of Fame

Created by the Space Foundation and NASA in 1988, the Space Technology Hall of Fame recognizes the life-changing technologies emerging from America's space programs; honors the scientists, engineers and innovators responsible; and communicates to the American public the significance of these technologies as a return on investment in their U.S. space program.

In addition to affording innovators much deserved recognition this program serves to encourage further innovation.

Inducted technologies include Life saving medical devices like the Debakey Blood Pump, the automatic external defibrillator, non-invasive breast biopsy technology, MRI and CAT scan imaging, anti-shock garments, and remote medical monitoring devices. Satellite technologies that power telecommunication include cellular phones, terrestrial networks, and commercially satellite broadcast television and radio communications. Health improvement technologies include LASIK eye surgery, implantable pacemakers and hearing aids, and many other devices that improve the daily quality of life for millions.

There are many technologies deserving of recognition and we invite you to submit your nominations for induction into the Space Technology Hall of Fame.

Maybe one day you could be nominated??????

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## YOUR MISSION

1. Explore NASA City, How Stuff Works 10 NASA Inventions, NASA Anatomy, and the Spinoff homepage.
2. List at least \_\_\_\_ products that you thought were cool.
3. Look up each one in the Spinoff Database.
4. Create a paper/pencil database of \_\_\_\_ NASA spinoff inventions with at least \_\_\_\_ fields.
5. Create an Excel spreadsheet with your fields and the data you collected.
6. Due on \_\_\_\_\_.

Your Mission:

Explore NASA City, How Stuff Works 10 NASA Inventions, NASA Anatomy, and the Spinoff homepage.

List at least \_\_\_\_ products that you thought were cool.

Look up each one in the Spinoff Database.

Create a paper/pencil database of \_\_\_\_ NASA spinoff inventions with at least \_\_\_\_ fields.

Create an Excel spreadsheet with your fields and the data you collected.

Any questions?