

# TECHNOLOGY FACT SHEET

## MSC-24149-2 Improved Method for Folding, Assembling, and Weight Relief of an Inflatable Shell (USPN 8,266,866)

This technology is an improved method of manufacturing, assembling, and folding a three-dimensional shell made from fabric into a compact form. These shells are typically deployed or inflated at a later time, and examples of shells range from a simple inflatable beach ball to a complex shelter. This method uses mathematical equations to achieve superior folding when compared to conventional methods. Potential benefits include: Simplified assembly – shell may be completely built in sections on a flat surface without inflation. Easier fabrication – shell may be assembled in its folded configuration, eliminating the more difficult task of inflation and folding after construction. This technology has applications for industries using fabric in two states - a compact folded form and a fully expanded deployed shell, such as automobile air bags, habitats, hot air balloons, inflatable decorations tents, and toys.

### Benefits

- Simplified assembly
- Easier fabrication

### Application

- Automobile Air Bags
- Habitats
- Hot Air Balloons
- Inflatable Decorations Tents
- Inflatable Toys

### Patent

JSC has received patent protection for this technology (USPN 8,266,866).

### Licensing and Partnering Opportunity

This technology is being made available through JSC's Technology Transfer and Commercialization Office, which seeks to transfer technology into and out of NASA to benefit the space program and U.S. industry. NASA invites companies to consider licensing this technology for commercial applications.

### Contact Information

If you would like more information about this technology or about NASA's technology transfer program, please contact:

Technology Transfer and Commercialization Office  
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