

Laham, Skylar
Flexible Sealing Devices (FSD)

My device forms/joins airtight seals in astronautic environments by connecting fabric materials, and the edges of modules. The Flexible Sealing Device (FSD) facilitates expansion within space modules, while reducing astronaut exposure to harmful radiation accumulated during Extravehicular Activities (EVA). The FSD is constructed from flexible composite materials, with a balloon structure - airlocks, hatches, and habitation module attachment of space modules will reliably extend space/room (cubic meters) for astronauts and instrumentation. The materials are flexible and light - consolidated within the payload, yet are reliable and robust, standing up to extremes in the space environment. The FSD is stored in a shrink-wrap container, and is applicable inside and/or outside the space module. Once expanded with gas, the FSD swells its convex shell onto the edges of fabric materials. Once inflated and pressed tightly with the module, gas is released from the FSD, convexly conjoining the module, forming a seal.