Space Colony Demonstration Module

(@ Research Center for Space Colony, Tokyo University of Science)

Specification Sheet



A possible solution to lunar habitation is an inflatable structure. JAXA, Tokyo University of Science, and Shimizu Corporation have investigated the possibility of inflatable structures on the moon for future lunar habitation. Through this demonstration module, we plan to test various aspects of human habitation.

ltem	Values		
Dimension		Main	Front
	Extension [mm]	W5,000 × D6,000 × H2,700	W3,000 × D2,100 × H 2,000
	Storage [mm]	W 900 x D 950 x H 550	W 700 x D 700 x H 400
Weight		About 100 [kg]	About 40 [kg]
Material	Film, Air Beam, Floor	Foundation: Polyester fiber cloth Resin : PVC coting	
		JISA 1322 Class-2 Flameproof Certified	
	Inner film	Polyurethane	
	Rod	FRP (\$\phi\$ 21, \$\phi\$ 15)	
Structure	Independent air beams, and rods which are perpendicular to air beams. The main room and the front room are connected by a single customized film.		
Options	Logo	3 logos on each side of main body	
	Illumination	None, but tapes are installed to hang illumination	
	Entrance	2 in both back side and front side, and 1 inside between main and front bodies	

70th International Astronautical Congress, Washington, D.C., 21-25 October 2019 JAXA, Tokyo University of Science, Shimizu Corporation