

Sabelt[®]

**N°1 IN SAFETY
SINCE 1972**



Ministero degli Affari Esteri
e della Cooperazione Internazionale

ITCA 

ITALIAN TRADE AGENCY

Italy-India

Business, Science
and Technology Forum

New Delhi, April 10/11, 2025

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Sabelt

WHO WE ARE

Sabelt is a leading designer, developer and manufacturer of high-performance seats for sports and racing cars and seat belts for the automotive, motorsport and aerospace industries.

BUSINESS

UNITS



OEM



MOTORSPORT



AEROSPACE

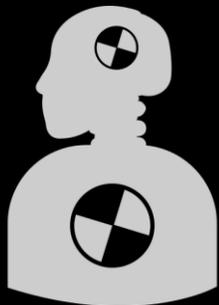
Sabelt in numbers

>50 years of activity

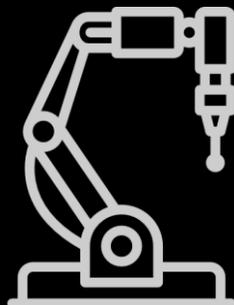
370 employees

5 plants

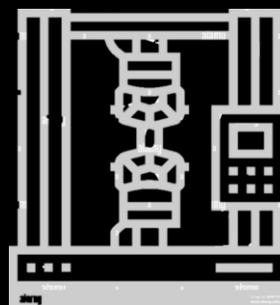
TESTING & LABORATORY



**INTERNAL DYNAMIC
CRASH TEST**



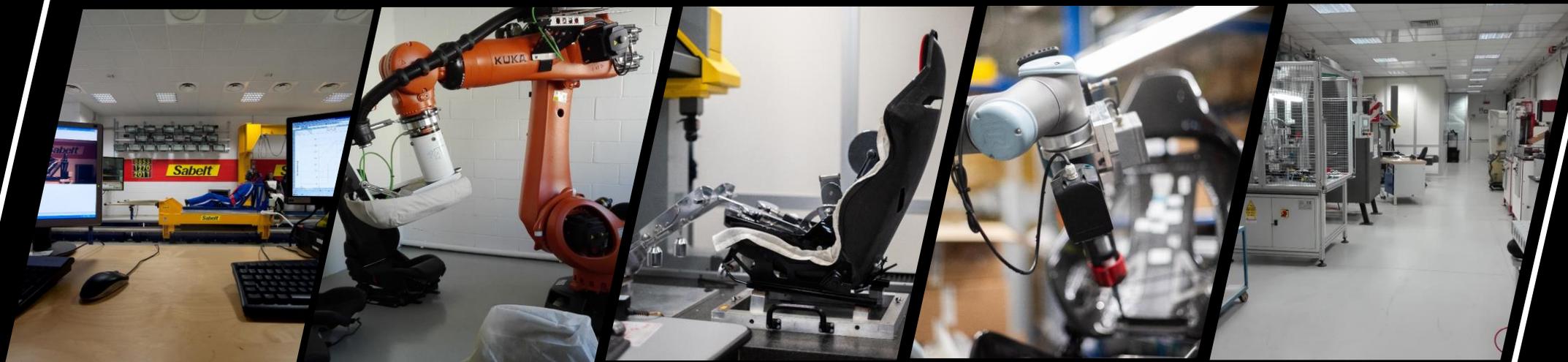
**MULTIUTILITY ROBOT
FOR DURABILITY
TESTS**



**STATIC
TESTING EQUIPMENT**



**SIDE AIRBAG
VALIDATION
CHAMBER**





BUSINESS UNIT

OEM

NUMBERS

>60k Units production capacity

>200 Workforce

>20 Clients

From Motorsport to Premium Sport Seats.

We develop and produce seats and seatbelts for high performance cars



Diversified customer base



Sabelt®

PREMIUM AND SUPER PREMIUM BRANDS



BUSINESS UNIT

MOTORSPORT

**From Motorsport to Premium Sport
Seats.**

**We develop and produce seats and
seatbelts for high performance cars**



SEATBELTS & HARNESSES

FIA & SFI homologated for racing use



SEATS

FIA homologated for racing use



TECHNICAL RACEWEAR

FIA & SFI homologated for racing use:
Suits – Shoes – Gloves -
Underwear

OFFROAD



RACING

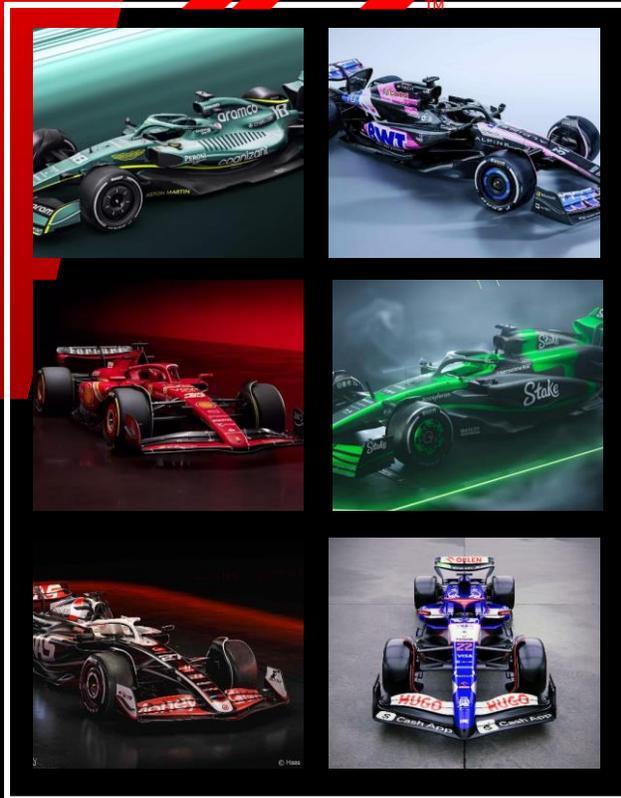


FORMULA



Sabelt®

MOTORSPORT



Sabelt®

FROM F1 TO SPACE



MAXIMUM SAFETY
EXTREME ENVIRONMENT
TECHNOLOGY DRIVEN
BEST PERFORMANCE
LIGHTNESS
SUSTAINABILITY

TECHNOLOGY TRANSFER

Sabelt®

FROM RACE TO AEROSPACE

MOTORSPORT ON BOARD OF AIRBUS A-320-330-340-350

- Sabelt is now **DOA** and **POA** approved company
- Innovation for **LIGHTNESS** and quick functionality
- Full **METAL ROTARY BUCKLE** for best safety and durability
- 4 points retractor seatbelts for **1135 g** (cabin attendant)
- 6 points static seatbelts for **550 g** (Formula 1)
- Supplied to Safran, Airbus, Leonardo





SPACE APPROVED MATERIALS (NASA MAPTIS)

APPROVED MATERIAL FOR SPACE FLIGHT

- Lightweight HIGH TENACITY FIBERS: Zylon flammability for CARGO (24,1%O₂) and HABITATION (30,1% O₂) NASA – 6001
- EPP (expanded polypropylene) flammability for CARGO (24,1%O₂) and HABITATION (30,1% O₂) NASA o 6001 is IMPACT ABSORBER, THERMAL and ACOUSTIC ISOLATOR and potential RADIATION SHIELDS
- ALUMINUM ALLOY AA8079 for CONDUCTIVITY and TOXICITY
- NOMEX
- KEVLAR
- VECTRAN

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2010: THE BEGINNING – CARGO STRAPS

MASS REDUCTION TO INCREASE THE PAYLOAD

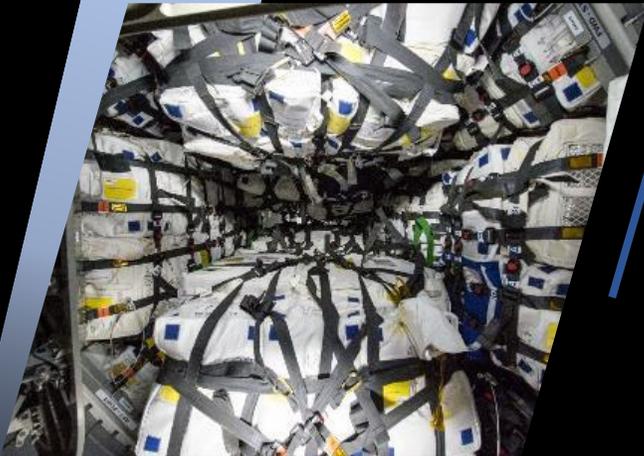
- Nasa contracted the ISS refurbish to three private companies for minimum load value per mission.
- Inside the cargo module there are straps and nets to retain the payload: up to thousand meters of webbing.
- Using formula one webbing, assembled with automotive components, **THE WEIGHT HAS BEEN REDUCED FROM 68 TO 36 KG.**



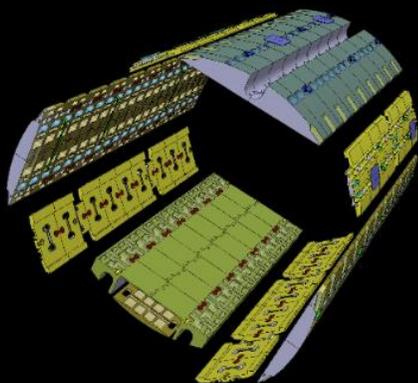
SPACE CARGO NETS

FROM STRAPS TO PRE-ASSEMBLED NETS

- Sabelt design a new **NET SYSTEM REPLACING ALUMINUM STRUCTURES.**
- The major key factor is the payload fixing during the launch: **MAX. 40mm DISPLACEMENT.**
- The system satisfy the requirement, **PUSHING THE WEIGHT DOWN FROM 101 TO 46 KG.**
- Rotary buckle is used for a quick payload release, **JUST ONE ACTION TO HAVE THE PAYLOAD AVAILABLE.**

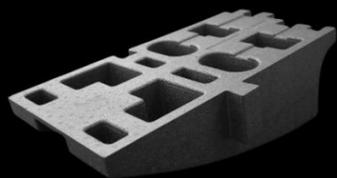


EPP FOAM SUPPORT



A LIGHTWEIGHT SYSTEM TO ORGANIZE AND SUPPORT THE BAGS

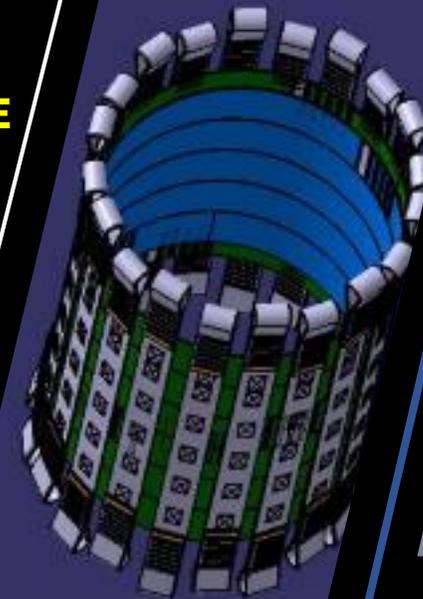
- The Expanded Polypropylene (EPP) is used in automotive as **ENERGY AND IMPACT ABSORBER** material.
- EPP is **APPROVED FOR FLAMMABILITY, TOXICITY, OFF-GASSING**
- Engineering of EPP can **REDUCE THE WEIGHT AND INCREASE THE PAYLOAD CAPACITY.**
- It is a **THERMAL** and **ACOUSTIC ISOLATOR**, potential **RADIATION SHIELDS**
- ***143 KG HAS BEEN REMOVED FROM CYGNUS***



HIGH PRESSURE FOLDABLE TANK RETAINING

A NET TO REPLACE A TANK DEVELOPED FOR ESA

- Tested at **PRESSURE OF 100 BAR**
- **FOLDABLE** and **PACKABLE**
- High tenacity webbing and stitching: **TENSILE STRENGTH 5500 Kn**
- It is possible to scale the system (up and down) in different dimensions.

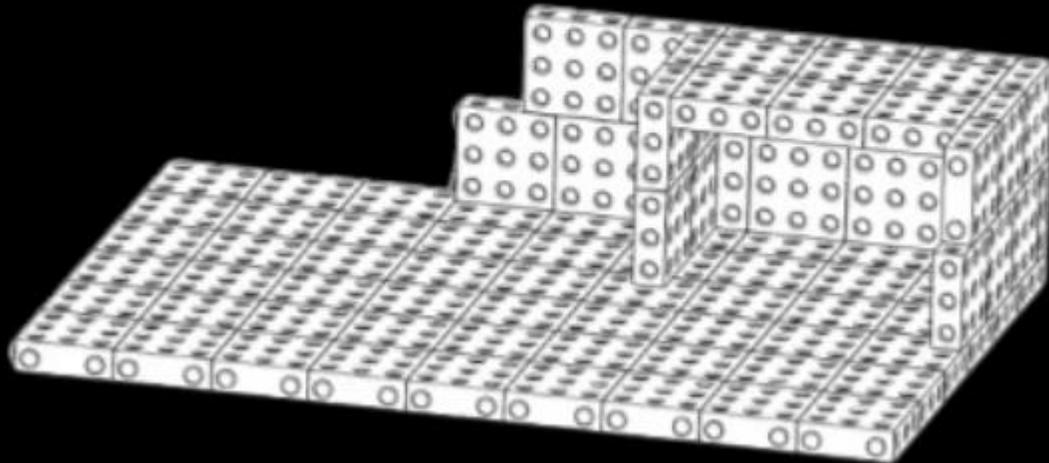
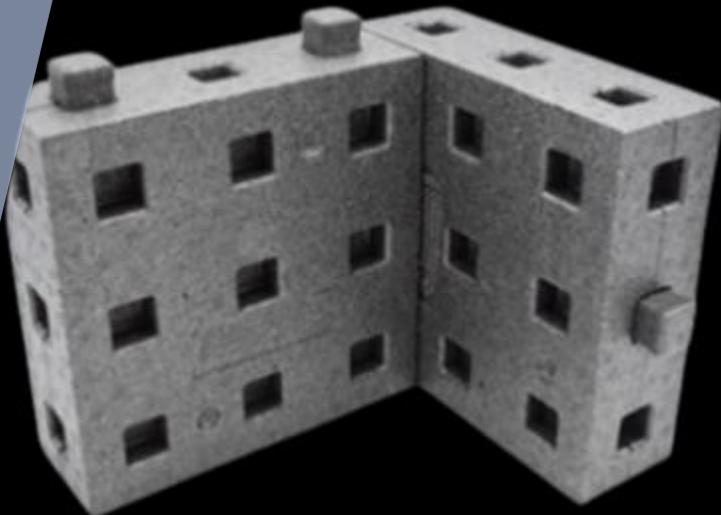
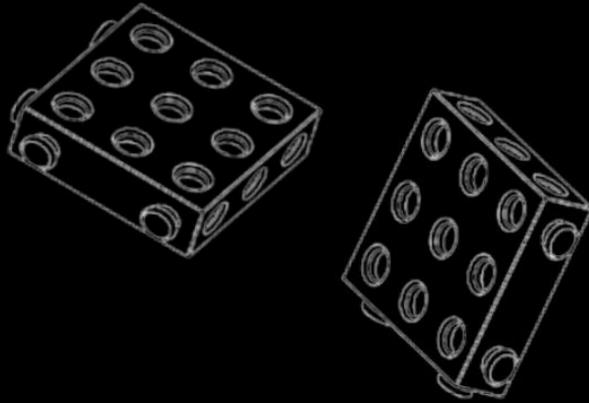


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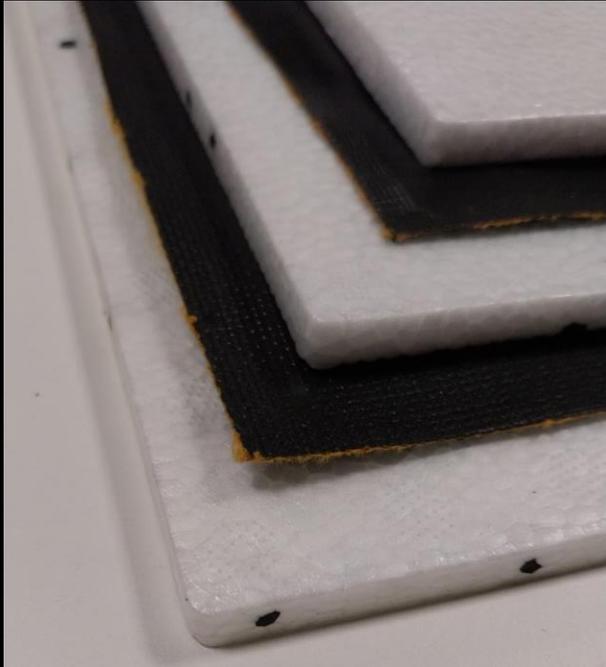
THE SPACE BRICK (Patented by Sabelt SpA)

RECYCLABLE/RECONFIGURABLE MODULAR ELEMENT

- Made of EPP SPACE FLIGHT APPROVED BY NASA AND ESA.
- Solid joining and high resistance at compression.
- Re-usable for different assembly (many times).
- Ultralight: 38 g/l.
- Impact absorber material.
- Thermal and acoustic isolator.



TOTAL PROTECTION IMPACT - THERMAL SHOCK - RADIATION - NOISE



EPP – EXPANDED POLYPROPYLENE

- RADIATION SHIELDS
- ENERGY ABSORBING
- THERMAL AND ACOUSTIC ISOLATION
- ANTI-VIBRATION

ZYLON FABRIC

- LIGHTWEIGHT HIGH TENACITY FIBER
- HIGH FRAGMENTATION CAPACITY
- HIGH TENSILE STRENGTH
- COATING INCREASE THE TENSILE STRENGTH AND UV RESISTANCE
- HIGH TEMPERATURE AND FLAMMABILITY RESISTANCE

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MULTIFUNCTION SEATING FOR SPACESHIP PASSENGERS

LIGHTWEIGHT SEAT TECHNOLOGY

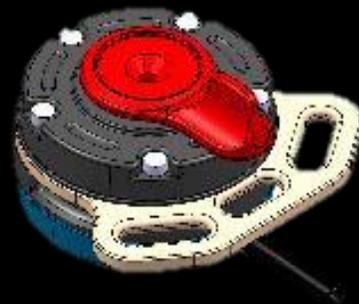


Sabelt®

LOAD LIMITER STITCHING

ELECTRICAL SEATBELTS TECHNOLOGY TRANSFER

- APPROVED ECE16R FOR ROAD USE
- SBR TECHNOLOGY
- LOAD LIMITER STITCHING
- MOTORSPORT QUICK RELEASE BUCKLE
- **FIRST ELECTRIC ROTARY BUCKLE IN THE WORLD**
- POSSIBLE APPLICATION WITH **HUMAN LIFE PARAMETER SENSORS**



SEAT BELT REMINDER (SBR)

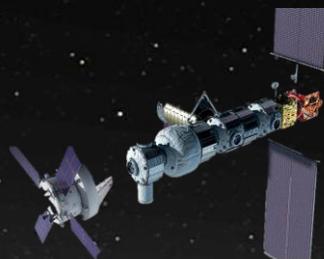
EXLPORE MORE

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SPACE APPLICATION



COMMERCIAL RESUPPLY SERVICE – PRIVATE REFURBISH OF THE INTERNATIONAL SPACE STATION



**ARTEMIS – LUNAR GATEWAY, THE STATION ON LUNAR ORBIT AND I-HAB
ESA HABITATION MODULE**



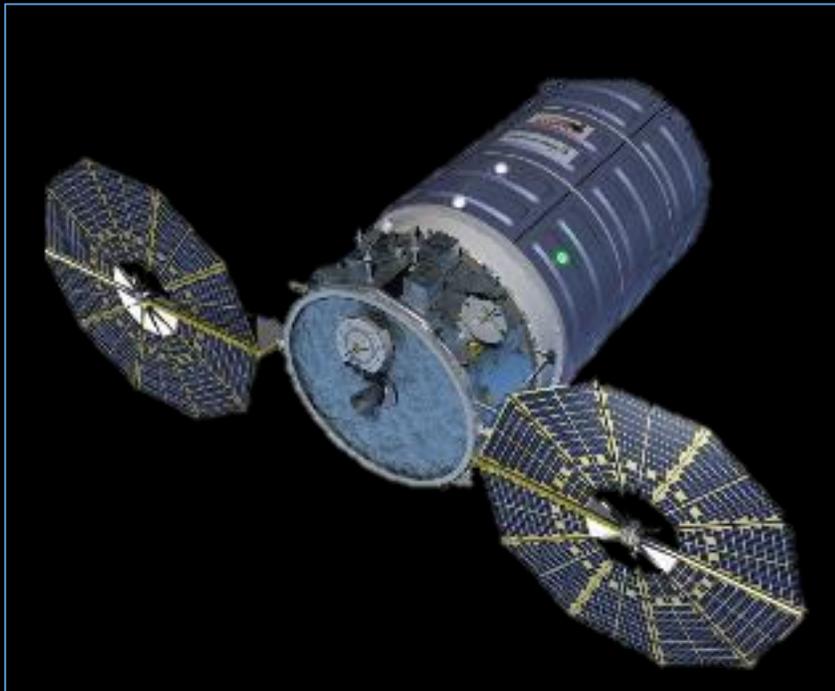
**LUNAR EXPLORATION, URBAN VILLAGE HABITATION
AND MOBILITY VEHICLE**



PROGRAMS CURRENTLY SUPPLIED

SPACE CARGO OPERATION CRS – Commercial Resupply Service

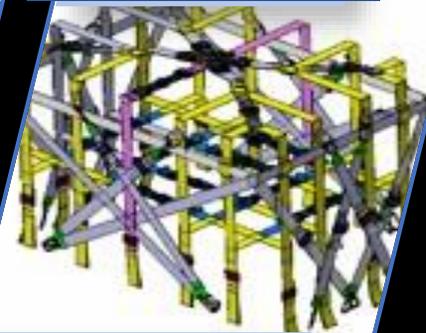
NG CYGNUS CARGO MODULE



STRAPS



NETS



FOAM SUPPORT



AIR INTAKE





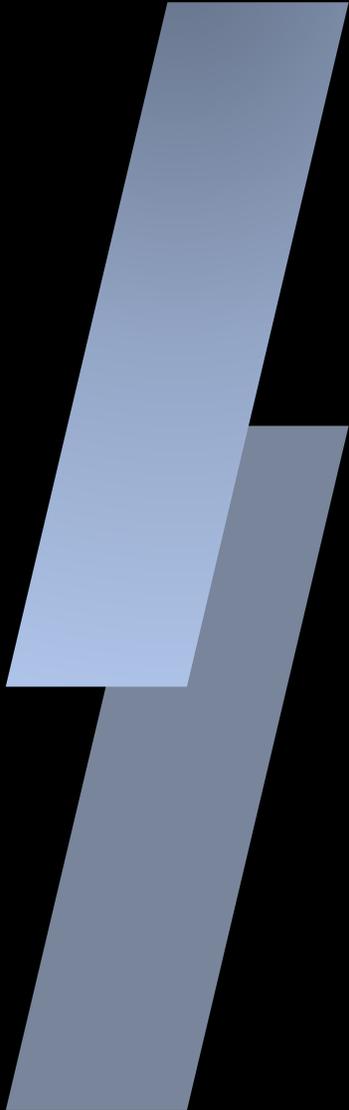
PROGRAMS CURRENTLY SUPPLIED

SPACE CARGO OPERATION CRS – Commercial Resupply Service

SIERRA SPACE DREAM CHASER



STRAPS





COMPONENTS FOR LUNAR GATEWAY SPACE STATION CREW, HABITATION AND CARGO INTERNAL OUTFIT

STRAPS



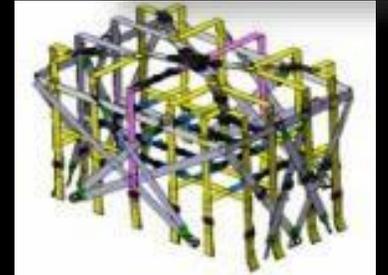
SOFT RACKS



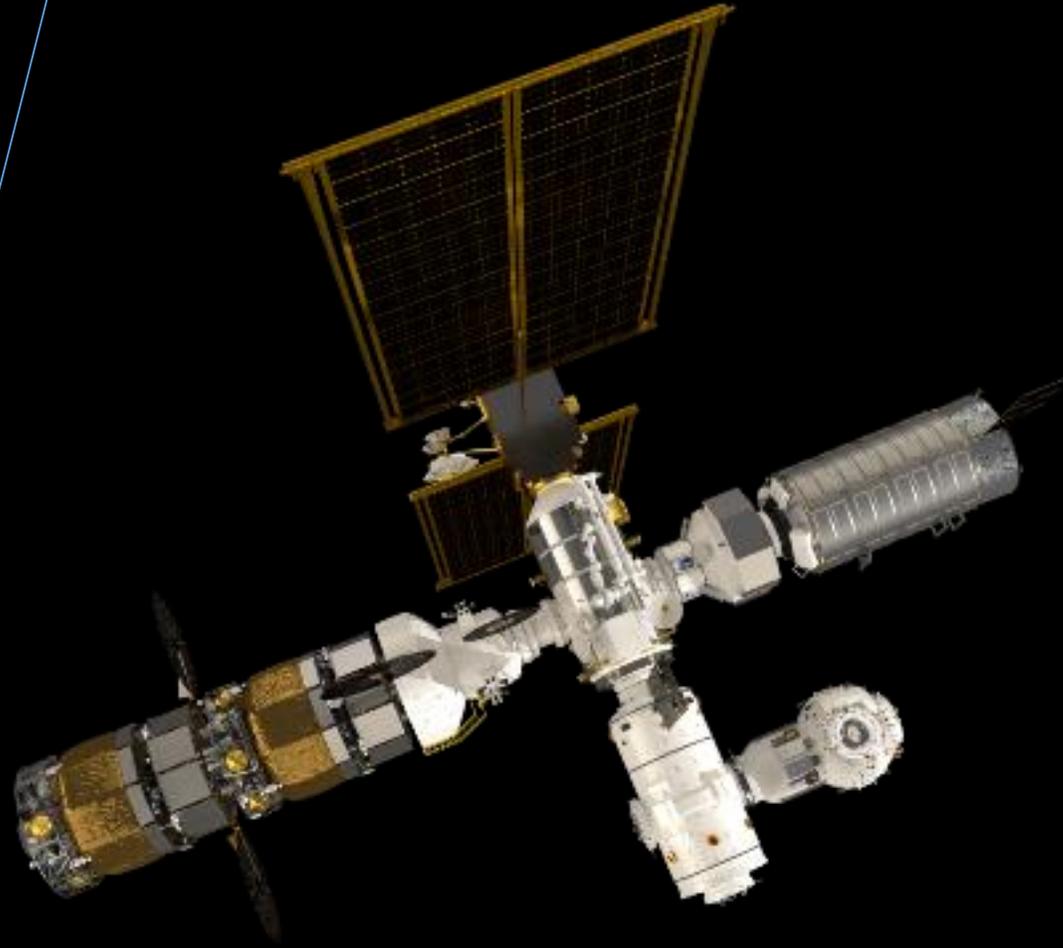
TANK STORAGE



NETS



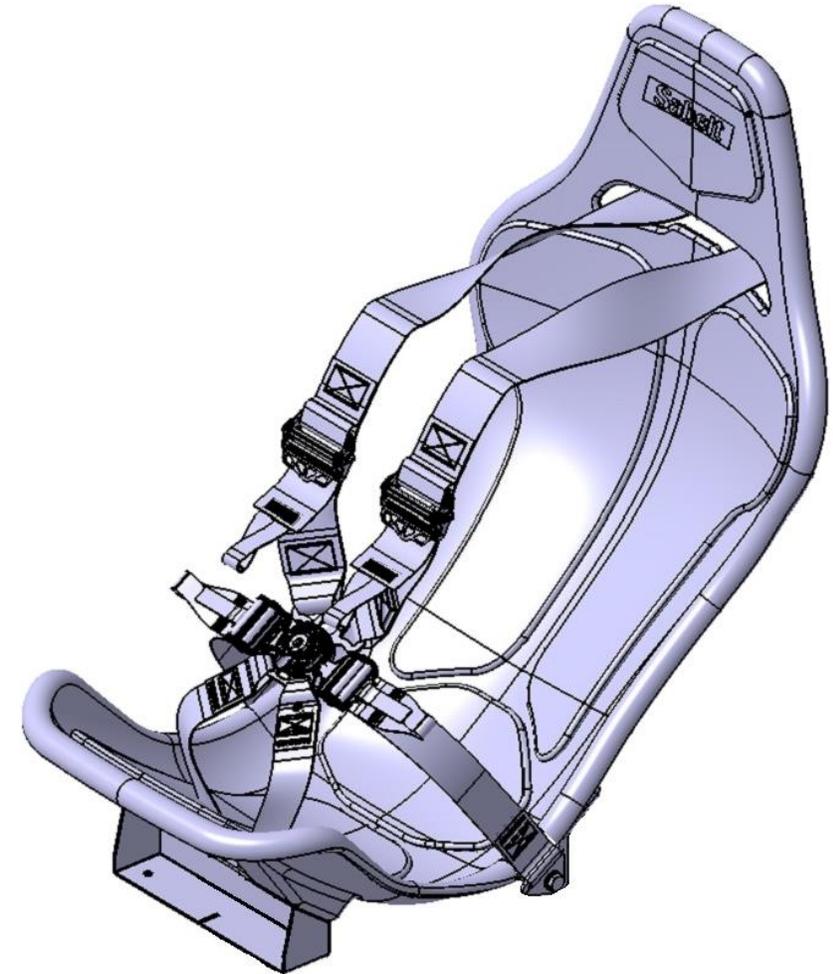
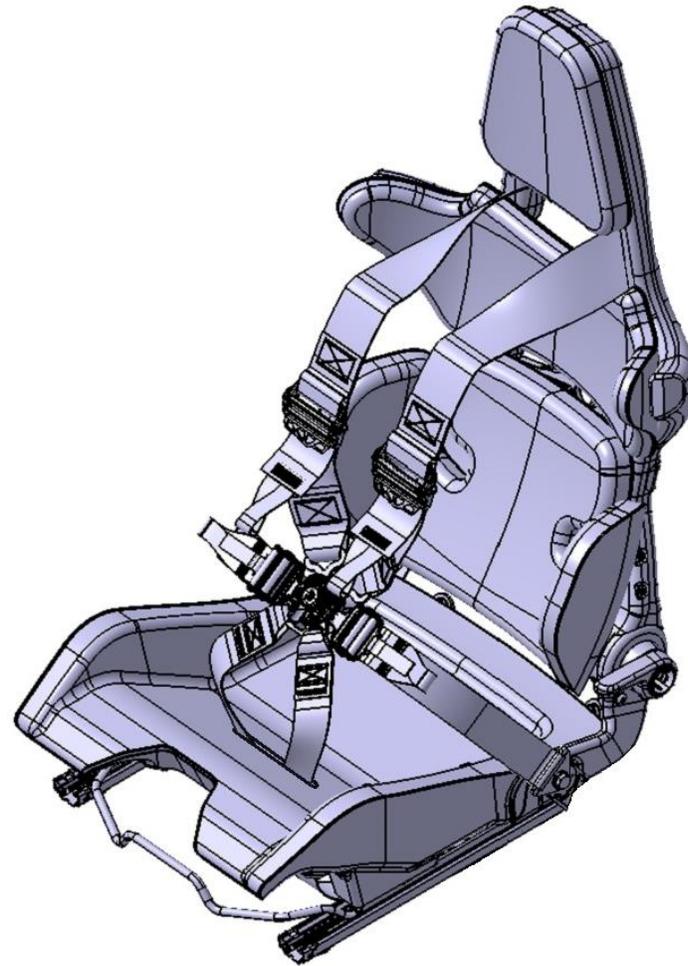
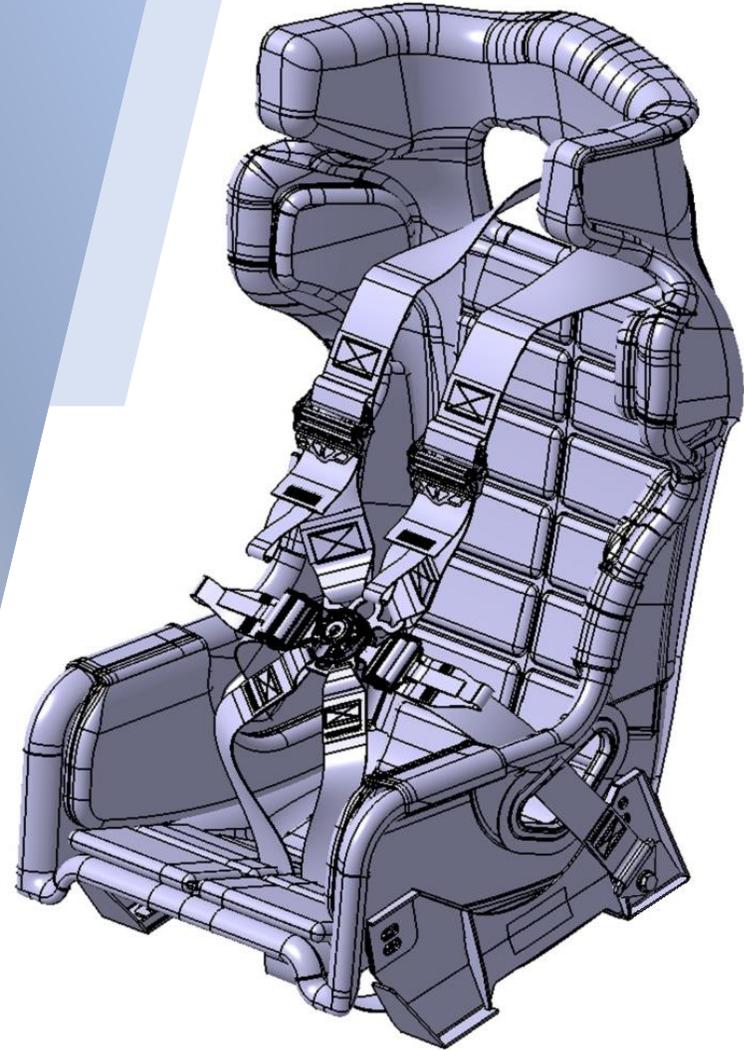
CREW QUARTERS



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COMPONENTS FOR LUNAR GATEWAY SPACE STATION

LIGHTWEIGHT COMPOSITE SEATS FOR CREW AND PASSENGERS

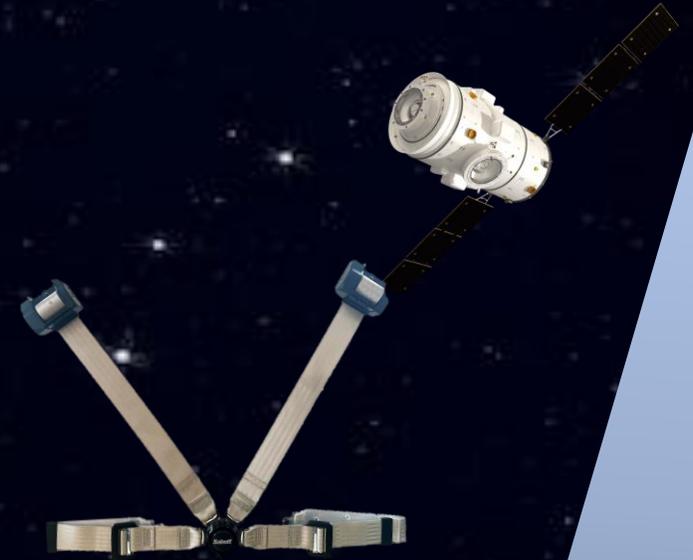




ARTEMIS PROGRAMS

ADVANCED MOON MOBILITY AND HABITATION STRUCTURE

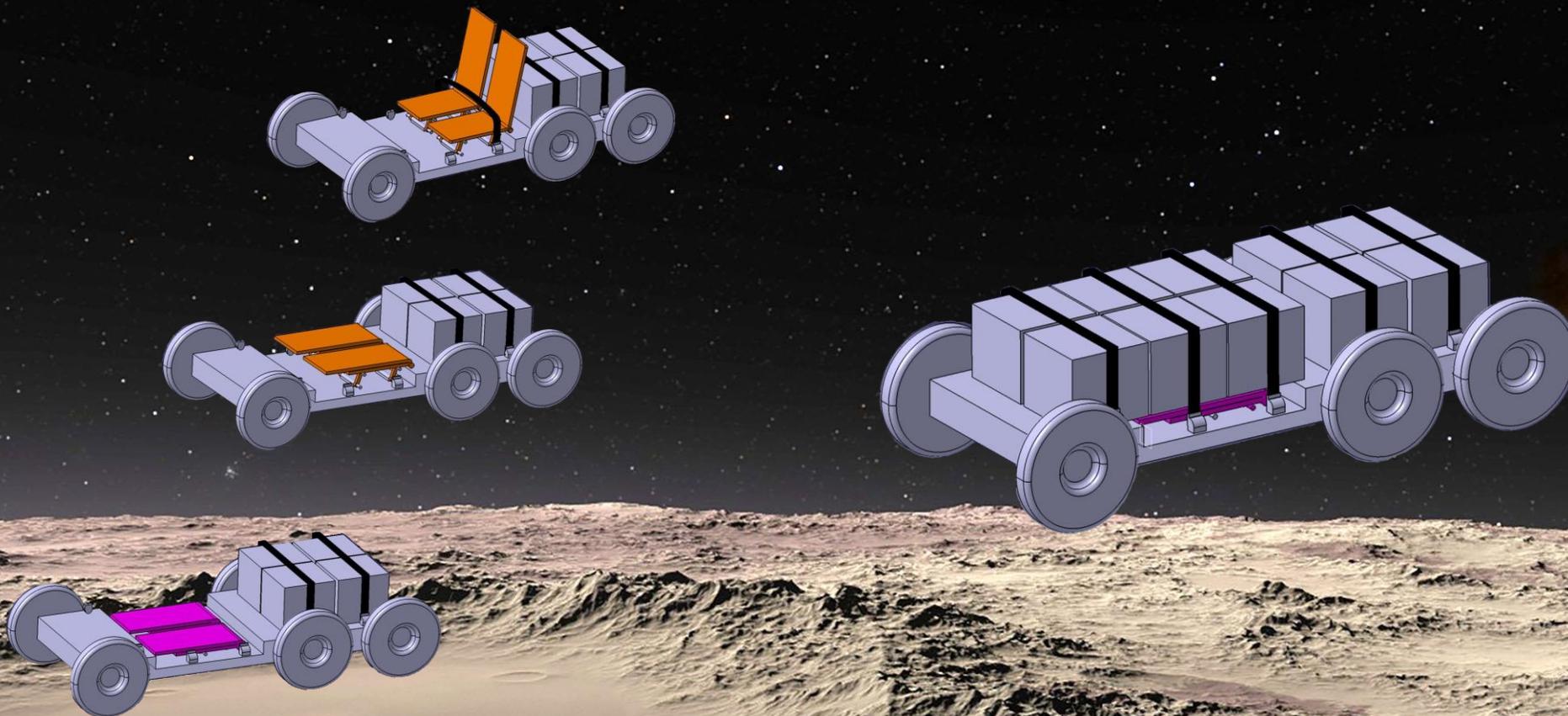
- SEATING
- SEATBELTS
- CARGO / TRANSPORTATION
- BAGS&BOXES
- IMPACT PROTECTION
- THERMAL SHOCK PROTECTION
- RADIATION PROTECTION
- INTERNAL OUTFIT
- RE-CONFIGURABLE SOLUTIONS



Sabelt[®]

COMPONENTS LUNAR MOBILITY

ROVER CONFIGURATION FROM PASSENGERS TO FULL CARGO



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Thank you!

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SINCE 1972**