EURO SPACE CENTER

ASTRONAUT CAMP

9 TO 18 YEARS OLD

1, rue devant les Hêtres • B-6890 Transinne Belgium • tel. +32. 61/65 64 65 • fax. +32.61/65 64 61 • info@eurospacecenter.be

www.eurospacecenter.be

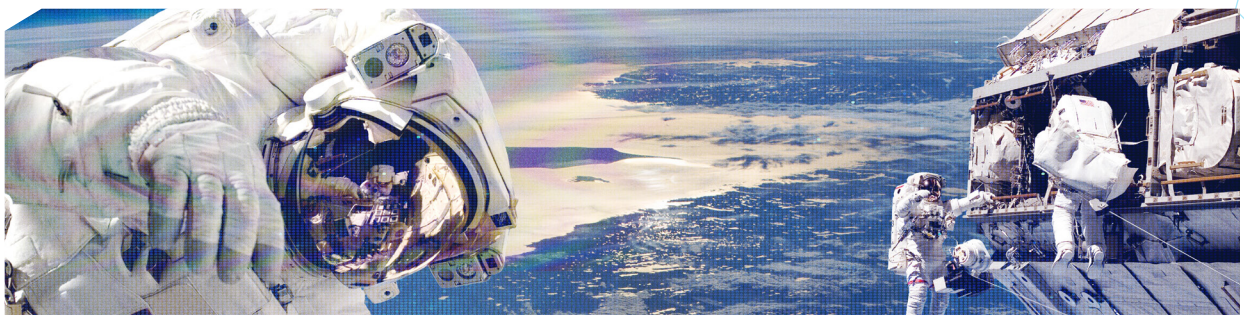
ACTIVITIES

ASTRONAUT CAMP

PROGRAMME

Briefing	1 hour	Clean room	1 hour
Space mission simulation	3 hours	Zero-gravity wall	1 hour
Action-reaction	1 hour	Planetarium	1 hour
Water rockets (construction and launch)	3 hours	Astronomy	1 hour
Rocket workshop (construction)	3 hours	Programming	2 hours
Rocket launch	1 hour	Life in space	1 hour
Moonwalk XP	1 hour	Microgravity pool	2 hours
Multi-axis chair	1 hour	Experiments	1 hour
Rotating chair	1 hour	Quiz	1 hour
Space rotor	1 hour	Mars	1 hour
Space Flight Unit	30 min.	Outdoor solar system	1 hour
Space hub	30 min.	Space Tour visit	1 hour
EVA training theory/Clean room	1 hour	Diplomas	1 hour
EVA Training	1 hour	Drone	1 hour

Total activity time 35 hours
(subject to change)



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ACTIVITY SCHEDULE

TIME	PROGRAMME
	SUNDAY
17:00	Arrival and reception of trainees with room and board - Set-up in rooms - Briefing
18:30	Dinner
20:00	Evening
	MONDAY THROUGH THURSDAY
7:30	Wake up
8:00	Breakfast
9:00	Reception of daytime trainees and start of space activities
12:00	Lunch
13:00	Space activities with a 30 min. break at 16:00
17:30	Free time
18:30	Dinner and evening activities
	FRIDAY
7:30	Wake up
8:00	Breakfast
9:00	Space activities
12:00	Lunch
13:00	Space activities
15:00	Presentation of the camp to parents, rocket launches and diploma ceremony
16:30	Departure

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DESCRIPTION OF THE ACTIVITIES

MICROGRAVITY POOL

Experiment with artificial breathing in a closed environment and experience the feeling of walking on the Moon at a depth of two metres.

SPACE MISSION SIMULATION

Briefing on the American space shuttle, its operation and the different phases of a mission. Training on reading the information displayed on the screens. Simulation of a space mission and all of its real procedures for take-off, orbiting, satellite deployment, Space Station rendezvous, atmospheric re-entry and landing. Simulation in groups of max. 8 trainees. Two take the roles of pilot and commander in the simulator and six take on ground positions in the control room (flight director, weather, launch and landing director, public relations, space shuttle environmental systems coordinator, etc.).

ASTRONAUT TRAINING SIMULATORS

Moonwalk XP: A chair on springs that simulates a moonwalk by making a person feel like their weight is 1/6th what it is on Earth.
Multi-axis chair: A chair mounted to rotate on three axes to simulate the disorientation experienced inside a spaceship that has lost control of its rotational axes.
Rotating chair: A chair that spins on a single axis to reproduce sensations of disorientation and vertigo. An explanation of the balance coordination centre. Measurement of recovery abilities.
Space rotor: Like astronauts before a mission, test your resistance to the forces of gravity in our space rotor.
Zero-gravity wall: An 8 m high x 10 m long metal structure that enables trainees to simulate repairing a satellite. Zero gravity is simulated via a counterweight system. Trainees can move up and down and from right to left along the entire structure.
EVA Training: With the help of a terrestrial team (specialist scientists) and a communicator, the EVA team will repair a satellite. Will you be able to communicate with each other and complete your mission successfully?
Space Flight Unit: Explore the Red Planet aboard your spacecraft.

ROCKET WORKSHOP

Water rocket and/or micro-rocket construction and launch workshop (body, nose cone, fins, motor placement, braking and recovery system, etc.). Theory on propulsion and rocket flight stability.

ASTRONOMY

Explore the history of astronomy and learn to observe the skies with the “Stellarium” application.

EXPERIMENTS

Experiments with vacuums and zero pressure: sound doesn’t propagate, liquids boil, air volumes expand, etc.

INTEGRATION OF A SATELLITE IN THE CLEAN ROOM

Briefing on the operation of a telecommunications satellite. Monitoring of the simulation of satellite integration. The trainees must connect the various elements that are standard in all communication satellites, regardless of their payload or mission: transmitter, receiver, encoder-decoder, etc. Small light cells will confirm the right connections.

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SPACE TOUR VISIT

Films show the great moments of space exploration.

DAILY LIFE IN SPACE

Presentation on weightlessness, its impact on the human body and its implications for daily life: eating, sleeping, personal hygiene, working, etc.

ACTION-REACTION

The children discover the Newtonian principle through trials and experiments. Construction of an air-powered car out of balsa wood. Miniature car race.

PROGRAMMING

An astronaut has just discovered that the docking sensors of the International Space Station are defective. In addition, a spaceship is headed directly towards the Station. What a disaster! Your mission: reprogram the ISS distance sensors for successful docking.

MARS

How do you travel to Mars? What rocket should be used? How long does the journey take? What challenges will astronauts face when landing on Mars?

PLANETARIUM

What can you see in the sky today? Discover the Moon, its phases, the Sun, the planets in our solar system and the stars during a session guided by our astronaut instructor.

QUIZ

Grab a tablet and test your knowledge!

DRONE

Introduction to drones.

OUTDOOR SOLAR SYSTEM

Discover the giant outdoor solar system.

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