



SPACE

a w a r e n e s s

WHO IS AN ASTRONAUT'S COSTUME DESIGNER?

Field Design, Technology

Type Design

Level of study Bachelor or master





What is it about?

Fashion is more of a business and an art while space is more technical. How can these aspects be united into one concept? A career of an astronaut's costume designer answers this question. This job involves transforming an idea to the final state-of-the-art product using an innovative approach and technologies of 21st century.

What would I do every day?

Astronaut costume designer's day-to-day tasks are definitely not a routine. They are top-notch artists who contribute to the creation of a very limited and at the same time vital piece of clothing for astronauts.

The source of their inspiration is space, and astronauts are models who bring their creations to the orbit. Designers of space costumes work with high-level textiles that are being developed specifically for space. This job uses cutting-edge technologies to satisfy the requirements of both safety and comfort for an astronaut and it all results in a unique and individually tailored costume.

Where can I work?

Universities (such as ESMOD Berlin International University of Art for Fashion), museums (such as London's Science Museum) as well as art and fashion schools (such as European fashion schools in Paris, London, Milan, Copenhagen or Berlin) are open to professionals in the field of design. You are welcome to make your career in private companies (such as Sympatex and Bionic Yarn).

How much and what do I need to study?

A degree in fashion designing should be your first option. But it is not enough for this particular job due to a wide range of technologies involved in the space costumes production.

Chemistry and physics are essential subjects for space costumes designers. By studying them, you will become familiarized with the process of manufacturing and the properties of ready-to-use textiles. When working on the design of a costume for astronauts, you need to have an eye for detail and ask a number of questions at every stage of the production, e.g. 'What can make a costume waterproof, windproof and at the same time, breathable?', 'Which temperatures and what kind of resistance do astronauts experience and which functions do they need to perform?', 'How maximum protection and comfort can be combined in one piece of clothing which will be used in an extreme environment?' To answer all of these questions you need an extensive knowledge of material-related subjects. You will most probably need engineering education to create a costume with embedded sensors. Sensors can measure exerted forces astronauts experience during their space stay and warn them about their physical state.

This is a job for me, if...

If you think that the combination of different backgrounds as space and art and ideas taken from them feed into a common project.

An astronaut's costume designer should be:

Innovative and broad-minded: You are able to develop ideas and move them to a higher level, opening new horizons for innovation

Future-oriented: You are fascinated to work with progressive textiles and learn the manufacturing process and technologies involved

Able to face challenges: It's going to be an absolutely new experience for anyone who will choose to face the challenge of conceptual ideas while integrating the technology into the garments.

Learn more about space fashion and couture in Orbit:

- Space textiles, space patterns
- From spacewalk to catwalk
- To boldly go where no fashionista has gone before

Image: Astronauts' dressing room **Credit:** Edgar Martins



This resource was selected and revised by Space Awareness. Space Awareness is funded by the European Commission's Horizon 2020 Programme under grant agreement n° 638653