

MISSION ASCLEPIOS

STUDENT-LED SPACE ANALOG MISSION FOR APRIL 2020

SPONSORSHIP BROCHURE

SPACE@YOURSERVICE, EPFL











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WELCOME INTRODUCTION

Dr. Angelo Vermeulen,

Mentor of Mission Asclepios

Space systems researcher, biologist, artist

NASA HI-SEAS I Analog Astronaut (Commander)



Analog space missions are a vital instrument to develop humankind's future in deep space. Through a holistic approach they enable us to explore a multitude of aspects involved in designing life in outer space. They can easily be used to simultaneously explore technological, ecological, medical, psychological, social and cultural components involved in expanding human civilization beyond Earth's atmosphere. After all, human space flight is more than just building rockets.

Analog space missions also enable us to be more inclusive in shaping our shared future in space. People from all walks of life - with all kinds of ages and from different cultural and professional backgrounds - can easily participate and contribute. And importantly, analog space missions also serve a purpose to communicate space science to a broad audience and make it much more accessible.



The MISSION ASCLEPIOS Project



A student-led space mission analog simulating a mission on another celestial body, for educational and research purposes.

Mission Asclepios is a do-it-yourself space mission analog made for and by students (under the mentorship of trained professionals). This interdisciplinary scientific project seeks to simulate short-term spatial mission on another celestial body (e.g. Moon or Mars). Astronauts will be pre-selected from candidate students, and they will be isolated for 7 days in a remote location, preferably in Switzerland, in April 2020. During this mission, the astronauts will conduct *in situ* experiments in fields ranging from psychology to robotics, to medicine to astronomy. These are proposed by research laboratories, scientific centers, and private companies.

WHY BECOME A SPONSOR?



The project has received the support and collaboration of SAGA Space Architects, Austrian Space Forum, ESTEE, and UKAM; as well as the partnership of Swiss Space Center, EPFL Space Center, HOBELab, UNIL and LASTRO.

In addition to this, ESA has agreed to support the mission in terms of expertise, supervision and equipment.

The network of government entities, companies, and research centers in the Space Industry that this project has obtained makes the sponsorship of this mission a great opportunity for visibility.

COMMUNICATION

Mission Asclepios is a Space@yourService initiative. Space@yourService is an EPFL non-profit organization whose main goal is to popularize space science (astronomy, astrophysics and space engineering) among the general public and EPFL students.

Promotion of Mission Asclepios is ongoing on social media through both Space@yourService's platform and EPFL's platform.

The international reach of the project and the wide network of partners means that the project is promoted in academic and industrial environments too, such as the IAC (International Astronautical Congress). A movie will be shot (by professionals) to show the preparation for the simulation and the execution of the final mission. All these offer a wide array of opportunities for promotion of the project and visibility for all our sponsors.

THE TEAM

The goal of Mission Asclepios is to teach the involved students the basics of mission control, designing a potential Moon base and performing a simulated mission in an Isolated and Confined Environment (ICE) so that the mission is fulfilled in the span of 6 months. The fulfilment of the mission is guaranteed by three teams:

- 1. **ENGINEERS**: responsible for the design of the habitat and the experiments.
- 2. MISSION CONTROL: in permanent contact with astronauts during the mission to ensure their safety and the well-being of the mission.
- 3. **ASTRONAUTS**: the subjects of the simulation, conducting the experiments during the simulation.

Chloé Carrière

Project Leader





Marcellin Feasson

Project Leader

President of Space@yourService, physics student at EPFL, and international Science Communication Speaker. She is used to leading innovative projects and consolidated her project management skills in the Silicon Valley last summer. Her motto is "If you shoot for the Moon, you will land on the Moon!"

Head of Mission, physics student at EPFL, and former scientific writer for Space@yourService. He has an avid interest in the space industry and human exploration. This also translates in his enthusiasm for adventure sports and aeronautics, for which he has an Initiation Certificate.



Project Mentors



Prof. Claude Nicollier

Claude Nicollier is a former ESA Astronaut and currently a professor at EPFL. He is a member of the Swiss Space Center in Lausanne, and has participated in the astronaut selection process at ESA. Claude is a mentor for the astronaut crew of Mission Asclepios.

Prof. Bernard Foing

Prof. Bernard Foing is a French scientist at the European Space Agency (ESA) and the executive director of the International Lunar Exploration Working Group (ILEWG). Through ESA, he will provide supervision and equipment to the Asclepios Mission, as well as mentorship and advice to the team.





Théodore Besson

Théodore Besson is the managing director of ESTEE SA, as well as a researcher at UNIL and lecturer at EPFL. He has been working on a ground simulator preparing a manned exploration mission for 10 years. He is a mentor for the whole team.

SCHEDULE OF THE MISSION



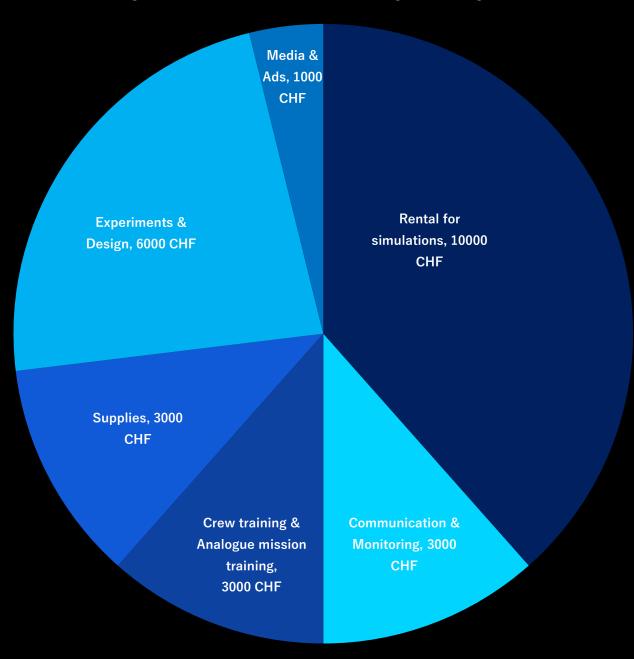
What are the objectives of this mission?

- 1. Simulate as realistically as possible a mission on another celestial body, introducing the human aspect.
- 2. Gather information for future space missions and provide a platform for research labs and companies to perform experiments.
- 3. Provide a one-of-a-kind support to students wishing to get involved in the space mission design industry and human exploration.

Project Budget

Mission Asclepios is partly funded by the Swiss Space Center and by the association's (Space@yourService) own funds. They contribute about 7000 CHF to the budget in total. The rest is to be funded by sponsors.

The following chart shows our envisioned budget, totaling 26'000 CHF:



SPONSORSHIP TYPES

Platinum Sponsor ≥ 5000 CHF

- Large logo and link on the project's website
- Visibility on flyers, posters, and banners
- Social Media visibility, logo on project movie
- Logo on t-shirts for project members
- Newsletter with evolution of the project every month
- Private visiting day at the 'Moon Base' during the simulation



Gold Sponsor ≥ 3000 CHF

- Medium logo and link on the project's website
- Visibility on flyers posters, and banners
- Logo on t-shirts for project members
- Newsletter with evolution of the project every month
- Article on our social media explaining the collaboration with your company, logo on project movie

Silver Sponsor ≥ 1000 CHF

- Small logo and link on the project's website
- Visibility on flyers, posters, and banners
- Logo on t-shirts for project members
- Newsletter with evolution of the project every month
- Goodies

DONATIONS

It is also possible to donate a sum to the project philanthropically so that it is subject to tax exemption. However, for this to be possible, no other sponsoring benefits can be expected by the donor.

The minimum contribution is 1000 CHF.



Credits: Mediacom EPFL

Further Information

Why Asclepios?

The purpose of this mission is to focus on the human aspect of space missions. Therefore, the ancient Greek god of healing and medicine, Asclepios, was chosen to be the namesake of the project. This name was also in part chosen to refer to Apollo's legacy, and hint at NASA's next Moon mission *Artemis*, Apollo's sister. The Asclepios logo was designed from scratch by Head of Design Ioris Aiello to symbolize the mission.



Origin of the mission

"My intention is to build up a permanent base station on the Moon", says Jan Wörner, Director General of the European Space Agency. Plans are to go back to the Moon by 2024 and to establish a sustained presence by the 2030s. International collaboration and sustainability will be keys to achieve this goal. Yet, the future space engineers and researchers who will be working on this lunar base are not prepared for this endeavor. Indeed, they are still students, or younger, and the system does not provide any education on space missions and how to establish a lunar outpost. This is where Mission Asclepios comes into play: a do-it-yourself space mission made for students.



CONTACT

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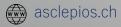
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