

BEYOND HORIZONS Lunar Habitats.

\$2000

Future Spaces

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"Pioneering Lunar Living Solutions"

Premise

The premise of this competition challenges participants to envision and design state-of-the-art lunar habitats that will cater to the future residents on the Moon. These lunar habitats should not only support human life but also ensure the well-being and comfort of inhabitants in the challenging environment of outer space. The primary goal is to push the boundaries of architectural design and innovation by creating lunar habitats that incorporate cutting-edge technology and advanced systems to provide lunar inhabitants with not just survival, but an exceptional quality of life.

lssue

The primary issue at hand is the pressing need for advanced lunar habitats that can sustain human life and enhance it. Lunar residents are confronted with an array of unique challenges, including extreme environmental conditions, radiation exposure, temperature fluctuations, and prolonged isolation.

The objective is to address these complex challenges and offer lunar inhabitants a comfortable, safe, and rewarding living environment that encourages well-being and fosters a sense of home on the Moon.

Objective

The primary objective is to push the boundaries of architectural design by creating lunar habitats that incorporate advanced technology and systems to ensure residents' safety and well-being. The habitats should provide not just survival but a high quality of life.



Site

- The competition site is set on the lunar surface, a place of extraordinary challenges and limitless possibilities. The lunar environment is unlike any on Earth and presents architects with unique challenges.
- Lunar habitats should be designed to accommodate lunar residents without exceeding 100 square meters in base size and 5 meters in height. These constraints are essential to ensure that the lunar habitats are practical and suitable for lunar surface deployment.
- The lunar surface offers a distinct architectural canvas that requires innovative solutions to overcome challenges such as low gravity, extreme temperature variations, micrometeoroid impact protection, radiation shielding, and resource scarcity.

Constraints

- Design solutions should be suitable for lunar environments, accounting for extreme conditions such as low gravity, radiation, and temperature variations.
- Architectural plans and 3D models must be designed for habitats within a range of 100 to 500 square meters to optimize space and resource usage.
- Sustainability is of utmost importance; designs should incorporate closed-loop systems for recycling resources and energy-efficient solutions.
- Habitat designs must prioritize astronaut safety and comfort, ensuring functionality for extended missions.
- Adherence to international space regulations and agreements is mandatory.
- Designs should take into account the constraints of transportation to the Moon and should be modular for ease of assembly.
- The inclusion of innovative technologies and materials suitable for the lunar context is encouraged, with a focus on space exploration and scientific discovery.

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Submission Requirements

- 2 x A1 Sheets explaining the value proposition or the design (each PDF with at least 150dpi Max.
 20 MB)
- 2. An optional 1-2 min Video explaining your design/concept (content in the video has been left to the participant's consideration)
- 3. **Participate in teams of 1-3 Individuals** (Multiple Registrations Allowed using different Email IDs and Phone Numbers)
- 4. The final PDF must be named 'team-<team number>.pdf' (for example, team-1234.pdf if your team code is '1234') and should be uploaded on *Google Drive/Dropbox/OneDrive* or any similar online file handler with 'Public Access' setting as 'Enabled'
- The final video must be named 'team-<team number> | Seek Fanatic Competition #beyondhorizons and uploaded as an 'Unlisted' video on YouTube (Choose 'Mark as not made for kids' while uploading)
- 6. The content in sheets should be *free of any plagiarism* (except collages and human cutouts in renders)
- 7. Submitted content must not include any information which exposes details of the participant or the region the participant resides in
- 8. Seek Fanatic logo must be postfixed to the video for 3 seconds with black background (Download logo: **<u>go.seekfanatic.com/logo</u>**)
- 9. Registration must be done on **seekfanatic.com** only using the contact information of the **team representative**.
- 10. **Team Number** is the same as your **Order Number** (4-digit code) after payment of registration fees.

Note: Failing in compliance with any of the above requirements will lead to disqualification of the respected team from the competition, with a notification email to the registered email id of the team leader.



Schedule & Fees

- Early Registration Ends: December 10th, 2023, 23:59 GMT (\$15 USD)
- Standard Registration Ends: January 10th, 2024, 23:59 GMT (\$25 USD)
- Late Registration Ends: January 25th, 2024, 23:59 GMT (\$35 USD)
- Submissions End: January 25th, 2024, 23:59 GMT
- Results Announced: February 25th, 2023

Prizes & Grants

- Winner x 1 = \$1000 + Certificate + Publication in our Annual Issue + Blog Post
- Runners Up x 4 = \$250 + Certificate + Publication in our Annual Issue + Blog Post
- Participation Certificates for all teams

Learn More

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Support & Contact

E-mail us at <u>support@seekfanatic.com</u> Follow us on <u>Instagram</u>.

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