

AWARD´S PROGRAM
ASTRONAUT AL WORDEN ENDEAVOUR SCHOLARSHIP CHALLENGE 2024
COLEGIO DE INGENIEROS DE CHILE A.G.
“MISSION TEAM #15, CHILE”

I.- INTRODUCTION:

The Astronaut Al Worden Endeavour Scholarship program is recognized by Kallman Foundation and awards students who have demonstrated excellence in STEM (Science, Technology, Engineering and Mathematics) disciplines scholarships to attend Space Camp in the United States. Chile has been selected due to the partnership with Kallman Worldwide and US export to FIDAE. The selection of students is made with the collaboration of the Colegio de Ingenieros de Chile A.G (Chilean Engineers Association) and the Chilean Air Force and its Space Bureau, within the framework of the International Air and Space Fair FIDAE 2024, which reinforces the Space Educational Program of the National Space System.

The Endeavour Scholarship Foundation will be responsible for the creation, execution and financing of the program, and the Colegio de Ingenieros de Chile A.G (Chilean Engineers Association A.G.) will determine the 4 winners to form “MISSION TEAM #15, CHILE”, as an external organization. The Chilean Air Force and its Space Bureau will collaborate in the technical and dissemination aspects, without further responsibility or commitment of expenses or economic resources, which will be the sole responsibility of the Endeavour Scholarship Foundation.

II.- ABOUT APPLICATIONS

Invitations will be sent directly and indirectly through cooperation agencies to students from all over the country.

III.- WHO CAN APPLY TO THE PROGRAM:

Students must be between the ages of 15 and 18 at the start of camp (7 July 2024). All applicants must have an **average level of spoken English:**

Students from all over the country who meet the requirements mentioned in this Program section are eligible to participate.

In case of winning, the student must present the necessary documentation to guarantee the trip and a simple sworn statement from the parent or guardian, which assures their agreement, in case of obtaining the award, to travel to the U.S. Space and Rocket Center recognized Space Camp in Huntsville, Alabama.

IV.- WHAT IS THE CONTEST STUDENTS MUST COMPLETE TO APPLY, "THE CHALLENGE":

The Artemis 1 Mission, started on October 20, 2022, with the launch of the ORION rocket on an unmanned mission, jumpstarting the Artemis Program. Orion spent three and a half weeks in space, launching 10 CubeSats on the trajectory to the Moon.

The Artemis 2 mission is scheduled for November 2024, which will be manned by four astronauts, taking a woman to orbit the moon for the first time and returning to Earth.

The Artemis program involves 5 space agencies in conjunction with NASA: Canada, Japan, Israel, Europe and Australia.

NASA is expected to invite Chile to participate in this program, so the Space Director of the Chilean Air Force is looking for a **Program Manager in Chile (JPCh)** for 2028, among students who, as of 7 July 2024, are 15 and no older than 18 years old. The challenge is to:

- a.- Prepare the development and construction of the lunar base to make life on its surface sustainable. It must contain everything necessary to house 10 astronauts. This can be a physical structure, digital, or any other medium that demonstrates the structure well. Ensure you choose a design that can be shared with the judging panel.
- b.- This base will be sent in unmanned flights between 2027 and 2028 and must be able to support or sustain the life of two (2) astronauts, in a 15-day mission during its construction. The astronauts will aim to assemble the infrastructure designed by the **JPCh** to then sustain the total of 10 astronauts upon its completion.

A.- Chilean Program Manager Profile (ChPM)

- 1.- English speaker
- 2.- Creative
- 3.- Able to design sustainable infrastructures in adverse environments, such as surviving on the extreme conditions of the moon.

B.- Contract rules:

You must submit a written paper (Executive Summary), and a video pointing out your project, which must comply with the following:

1. Fundamental:

- a. Define the type of construction and life support implements.
- b. Survival, list of food types that they will be able to take accounting for conditions of space travel and inhabitation. True conditions for space must be considered.
- c. Protections considering environmental aspects (solar radiation, trajectory, health and wellness of the crew, waste, etc.) should be considered. Not ALL environmental aspects must be addressed, but a clear understanding of the challenges for this project must be expressed.

2. Form: It is mandatory to consider the following rules.

- a. A written document must be submitted (Word or PDF), letter size, 2 pages, font "arial", size 11, single spaced, **in English**.
- b. Provide an mp4 video explaining the chosen model and its solution in no more than 4 minutes and no less than 3 minutes, **in English**.

NOTE: exceeding the number of pages or not complying with the format, such as exceeding 4 minutes of video or less than 3 minutes, is grounds for disqualification.

C.- Reviews and Award

The papers must be submitted to the following e-mail address of the Colegio de Ingenieros de Chile A. G. (postulaciones.spacecamp2023@ingenieros.cl), who will evaluate the entries of the candidates, in accordance with the "Evaluation Bases", prepared by the Colegio de Ingenieros de Chile A. G., in order to select 4 participating students, who will be awarded for their participation with:

A trip to the International Space Camp "U.S. Space and Rocket Center" (Huntsville-Alabama USA), from July 5 to 13 July, 2024, all travel expenses from their place of residence (Chile), round trip economy class airfare from Santiago to Washington DC and all ground transportation in the United States, food and lodging (USA). **It does not include** the cost of obtaining a passport. The Endeavour Scholarship Foundation will cover the cost of an ESTA (travel visa) for the winners. Please note that all winners will also be taken on a tour of Washington DC.

NOTE: Passport must be valid for at least six months at the date of return.

Winners will be accompanied by a teacher to be selected by the organization.

For more information, please visit <https://endeavourscholarship.org/>

V.- EVALUATION RULES FOR CANDIDATES

The Colegio de Ingenieros de Chile A. G., Especialidad Aeronáutica y Espacio, has elaborated the following evaluation criteria:

The evaluation criteria are listed on the following table:

SPECIFICATIONS	RATIO
Fundamental: The following aspects will be evaluated in the explanatory video and written summary: <ul style="list-style-type: none">• Creativity in terms of the proposal and the conceptual design.• Technical and scientific accuracy.• Viability of the proposed solution.• Consistency between the written document and visual material(s).	80%
Form: Meeting the technical parameters of length and format requirements: <ul style="list-style-type: none">• Written summary of the project• Explanatory video	20%

The top six students will be selected to participate in a final interview with the Endeavour Scholarship Foundation team. The top students will then make up Mission Team #15, Chile, and the other two students will become alternates. Alternates will be selected to participate if one of the four winners is unable to attend the trip. Alternates will be informed in a reasonable timeline and guided through the application process by the Endeavour Scholarship Foundation.

A.- Winners Selection:

Every candidate must submit a form (Annex N°1), with the following personal data:

- Student's name
- Date of Birth
- ID Number
- Home address
- School's name

- Grade

B.- Submission form

Each participating student must submit his or her work according to what is indicated in point IV. A. of this program. **Failure to fulfill this requirement will result in disqualification.**

C.- Contents

The text must be free and of their **own authorship and originally written** (not having been published before), copying partially or total content already published will not be accepted.

Copied texts from other publications **will not be accepted.**

D.- General rules

1. Each participant may submit only one project.
2. The academic year in which the student is in will not be considered, only the student's age.
3. The deadline for the reception of the works is until November 26, 2023 at 23:59, to the e-mail address:
postulaciones.spacecamp2023@ingenieros.cl
4. The papers will be published in the Web of the Chilean Air Force and the Colegio de Ingenieros de Chile A.G. (Chilean Engineers Association).
5. Received papers won't be returned.
6. Participation in the contest implies acceptance of these rules and grants the organizers the exclusive right, free of charge, without time or territorial limit, to exercise all the rights indicated in art. 18 of Law No. 17.336, and, especially, to edit, publish, distribute, translate, transform, adapt and reproduce in any media the participating projects.
7. By the sole participation in the program, the author accepts that his/her work, along with his/her name and surname, place of residence and age, may be included in the diffusion of the program.
8. The jury will be presided by 4 members of the Colegio de Ingenieros de Chile A.G. (Chilean Association of Engineers). In case of a tie, a member of the Chilean Air Force Space Board or the Endeavour Scholarship Foundation may be added as a request of the College of Engineers.

9. Annex N°2 (Authorization of participation for minors), signed before a notary public by the parents, including his/her birth certificate, which accredits the relationship of the minor, must be submitted.

***This document will be requested only for the winners.**

10. Travel requirements:

- a. Valid passport for at least 6 months from the date of return.
- b. Valid Visa Waiver (ESTA) (two months of the minimum return date).
- c. Notarized permission from parents (three copies).
- d. Birth certificate (three copies).
- e. It is advisable to carry the local currency of the destination (US Dollars).
- f. Parents contact information.
- g. Medicines if under treatment.
- h. Agreement to adhere to the Endeavour Scholarship Code of Conduct.

11. Participation at FIDAE

The selected winners will be awarded their official Endeavour Scholarship at FIDAE 2024. This includes attending the show with one adult and participating in the Endeavour Scholarship Award Ceremony. The Endeavour Scholarship Foundation team will work with students and families to coordinate participation in this event, covering travel costs.

VI.- GENERAL SCHEDULE

Launch:	September 14, 2023
Marketing:	September 14 to November 10, 2023
Submitting applications:	October 16 to November 26, 2023 at 23:59.
Projects evaluation:	November 27 to December 7, 2023
Interview to the top 6:	December 11 to December 13, 2023
Winners announcement:	December 15, 2023
Travel arrangements (visa, passports, tickets and others):	as soon as the winners are notified.
Award ceremony at FIDAE 2024:	date and time to be confirmed
Travel:	July 5 to July 13, 2024

