



ETFdesign.org

Call for Entries!

2021 Aluminum Extrusion STUDENT DESIGN COMPETITION

Your Ideas Taking Shape

Entry Deadline: March 29, 2021

**\$15,500
in Student
Scholarships!**

Fast Facts

ELIGIBILITY

High school, undergraduate, graduate, trade and technical school students are eligible to enter the competition. You must be enrolled in and attending school to enter.

Individual and team submissions will be accepted. Each student on the team must complete and submit an official entry form with the entry.

HOW TO ENTER

To enter, design a product that incorporates at least one extruded aluminum profile (custom designs are preferred, however products designs that incorporate standard shapes will also be considered). Be sure to review all of the information in this Call for Entries for guidelines and tips on creating a potential winning design.

All design entries must include a completed 2021 Official Student Design Competition Entry Form. Enter using the form in this brochure or download the official entry form at ETFdesign.org.

Important! When emailing your entry materials, you must include in the body of the email the list of the items you are attaching to your message (for example: "I have attached a total of 3 files: entry form, design presentation file in PDF, link to video file showing product prototype in use").

Entries may be mailed by post or emailed to mail@ETFfoundation.org.

MORE INFORMATION

For more information and educational resources visit our website at ETFdesign.org.

Questions? Contact us at mail@ETFfoundation.org.

ENTRY DEADLINE

All entries must be received in the ET Foundation office no later than Monday, March 29, 2021. That doesn't mean you can't send your entry early! We understand that class schedules, Spring Break, mid-term exams and other commitments can sometimes affect your participation in the competition. Just be sure your entry arrives **NO LATER THAN March 29, 2021.**

WINNERS

Winning designs will be selected by a panel of aluminum extrusion industry professionals who will judge entries based on the competition criteria as outlined in this brochure.

Winners will be announced in Spring 2021 and will be featured on the AEC (Aluminum Extruders Council) website at AEC.org, as well as promoted to design and trade press publications.

SCHOLARSHIP AWARDS

The following awards will be available to the winning entries in the Student Class:

- **First Place - \$5,000**
- **Second Place - \$4,000**
- **Third Place - \$3,000**
- **Sustainable Design - \$3,500**

Prizes will be split between team members for team submissions that win.

Competition Sponsors:

ALMAG / Made possible.



2021 Student Aluminum Extrusion DESIGN COMPETITION

Students have a unique way of looking at the world, which makes them well-qualified to offer creative solutions to design challenges.

The Aluminum Extrusion Design Competition is intended to enlighten students about the many design advantages and infinite application possibilities of aluminum extrusions.

Enter your unique and original design in the **2021 Aluminum Extrusion Design Competition**. Show off your talent, ingenuity and creativity by designing components, systems, products, or product assemblies that feature aluminum extrusions. You may earn a scholarship award for your winning design!



Cargo Bike

Design Resources

Students are encouraged to learn more about aluminum extrusion design, processes and applications. Visit the AEC website at AEC.org for a wealth of resources, including design tips, application examples, webinars, technical information, and more to help you in your design journey.



Scan this QR Code with your smart phone for easy access to design resources.

Designing For Success

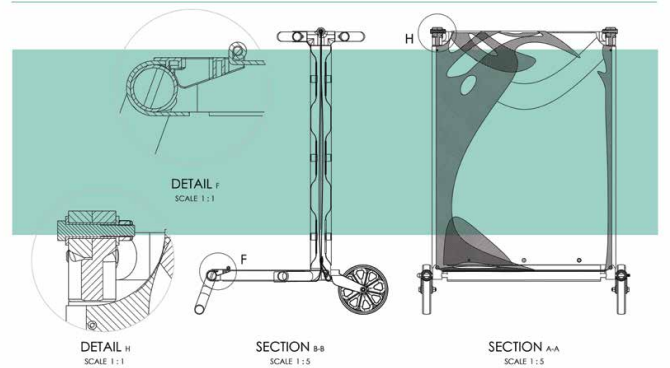
Aluminum extrusions are found everywhere, from buildings and transportation to consumer products and machinery, and are often the most functional and cost-effective material and process option.

The right extruded shape using the right aluminum alloy that can be enhanced through additional fabrication and finishing steps can yield an effective product design solution. Aluminum profiles can:

- Reduce piece count by consolidating several components into one extruded part
- Provide multi-functionality using complex integrated features
- Facilitate easier manufacturing and assembly
- Reduce material and production costs and lead times
- Increase product reliability and durability
- Simplify maintenance and repairs for product users
- Build in functionality and attractive appearance to increase marketability
- Advance sustainability goals with aluminum's recyclability.

In what ways will your design incorporate some of these features to deliver an effective, inventive and interesting product solution? Think beyond the ordinary to come up with new, innovative and resourceful ways to use extruded aluminum!

CART / BED FOR REFUGEES



Cart/Bed for Refugees

Student Scholarship Awards

Your Design Could Win Money!

Enter the 2021 Aluminum Extrusion Design Competition by March 29, 2021 to compete for student scholarships totaling \$15,500!

Scholarships will be presented as cash awards to the best student aluminum extrusion designs submitted. The following awards will be available to the winning entries in the Student Class:

- **First Place - \$5,000**
- **Second Place - \$4,000**
- **Third Place - \$3,000**
- **Sustainable Design - \$3,500**

Competition Sponsors

The ET Foundation is grateful to the following companies for sponsoring the 2021 Aluminum Extrusion Design Competition student scholarships:

ALMAG / Made possible.

ALMAG.com



MIMetals.com



PennexAluminum.com

If your extrusion profile design fits within this shaded 10-inch circle – you are one step closer to winning!

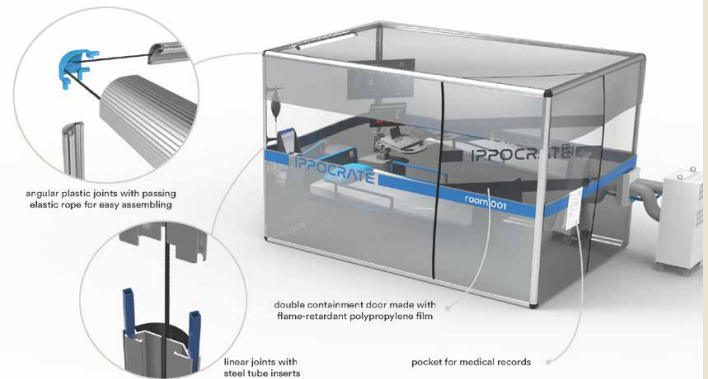
THE SUSTAINABLE DESIGN CHALLENGE

Your only limit is your imagination!

The Sustainable Design Challenge Award will be presented to a Student design that, in addition to meeting the four basic ET Foundation Design Competition criteria, best addresses societal and/or environmental challenges/concerns. The entry must be a viable, extrusion-based product that meets the sustainability demands for the environment, while contributing to the quality of life for its intended users. Students should indicate they are seeking consideration for the Sustainable Design Award on the Entry Form and explain in the written brief how their entry meets the criteria. Examples of past entries for the Sustainable Design Challenge Category include:

- Refugee tent
- Hydroponic gardening system
- Water purifier
- Assistive device for individuals with physical limitations.
- Temporary housing
- Emergency or specialty medical equipment

EXTERNAL OVERVIEW

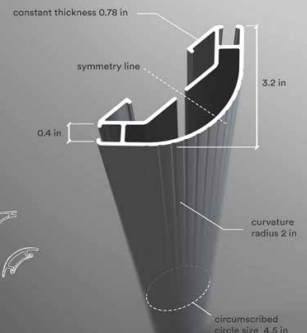


SECTION STUDY

The extrusion's design has been studied according to the AEC's Aluminum Extrusion Manual.

The profile is a semi-hollow type 1, symmetrical, with balanced walls and aesthetic grooves. The chosen aluminum is ALU 6060A because of the tensile strength required to join the 20 sections of the structure. We found aluminum to be the best material for this application since its lightness makes it easy to move the unit, it is resistant to frequent cleaning processes and perfect for the quick-assembly procedure.

Examples of considered sections:



Ippocrate System

Competition Rules & Judging Criteria

To be eligible, you must be currently enrolled as a student in high school, college/university, technical or design college, or graduate school.

Designs must be original and use at least one extruded aluminum component. Multiple entries may be accepted. If any category yields no entries deemed by the judges to adequately address the competition's criteria, a prize will not be awarded in that category.

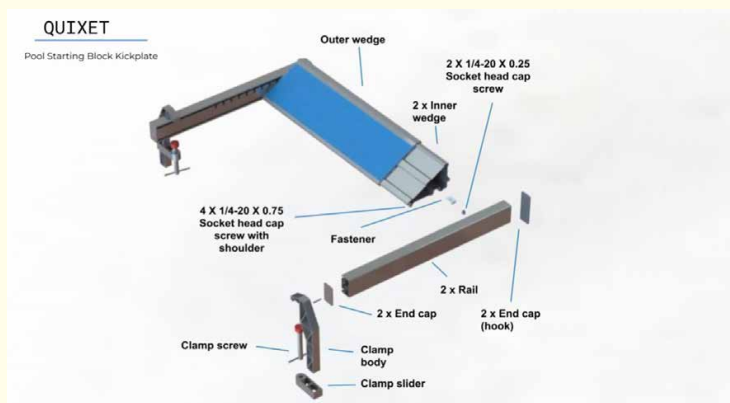
Winning entries will be those that best demonstrate the benefits of aluminum extrusions – whether by inventing a new product or improving an existing one, by achieving the following objectives:

- **Creativity** – Innovative design, new or expanded application capability, methods to meet a new design challenge.
- **Practicality** – Ease of fabrication and assembly, cost-effectiveness, integrated or multi-functionality, use of extruded aluminum over other materials and/or processes.
- **Product/Process Advantage** – Product/process improvement: product design versatility or customization capability, improvement of extrusion processes, close tolerances, takes full advantage of extrusion's abilities to improve a product.
- **Market Impact/Potential** – Product design marketability, clearly identified product use(s) within the target market, and likelihood of market success.

A panel of aluminum extrusion industry professionals will judge the competition entries in Spring 2021. Winners will be notified following judging via the email listed on their entry form (so write legibly!). For complete rules and criteria, visit AEC.org/CompetitionRules.

Instructors

If you would like an AEC member to deliver a presentation detailing the aluminum extrusion process to your class, please contact AEC at mail@aec.org.



Quixet Pool Starting Block Kickplate

Visit ETFoundation.org for updates and additional information.



ETFoundation.org



STEP 1: Complete Your Information - please print legibly

ENTRY DUE BY MARCH 29, 2021

I AM A STUDENT STUDYING:

Design Engineering Architecture Other _____

In addition, I am entering my design in the SUSTAINABLE DESIGN CHALLENGE Category. (See the Call for Entries for Entry Criteria).

STUDENT'S PERMANENT ADDRESS

Name _____

Address _____

City _____

State/Province _____

Country _____ Zip/Postal Code _____

Telephone _____

E-mail _____

Class (junior, senior, etc.) _____

Student's Major _____

UNIVERSITY OR COLLEGE ATTENDING INFORMATION

School Name _____

Address _____

City _____ State/Province _____

Country _____ Zip/Postal Code _____

STUDENT'S FACULTY ADVISOR INFORMATION

Name _____

Address _____

City _____ State/Province _____

Country _____ Zip/Postal Code _____

Instructor's Email _____

Instructor's Phone _____

STEP 2: Explain Your Entry - use additional pages to explain if necessary

Name of part and/or product _____

What is your product's use? _____

Alloy Specified _____

On this form or on a separate sheet of paper answer and explain in detail the following questions:

Reason aluminum and this alloy were chosen?

Why is this entry an exceptional example of aluminum extrusion? What objective(s) does it accomplish? Explain what judging criteria your entry addresses. (Use additional pages if necessary.)

ACCOMPANYING MATERIALS

Include as much support material with as much detail as possible that illustrates the design, its utility, and practicality.

- Sample of part/product
- Design drawings (PDF or JPG files preferred)
- Model
- Photos
- Video (3 minutes or less)
- Audio-visual materials
- Descriptive literature
- 3-D printed model (Recommended if available)
- Other _____

For team submissions, each member shall complete and sign a copy of this form. A photocopy of this form may be used for additional submissions.

Student Signature _____ Date _____

STEP 3: Send Your Entry

Please include a completed entry form with your supporting materials by **March 29, 2021** and send to:

2021 International Aluminum Extrusion Design Competition

Email: mail@etfoundation.org

Note: Please include your list of files that are attached in the body of your message.

ET FOUNDATION
1000 N. Rand Road
Suite 214, Wauconda, IL 60084 USA
phone: 847.526.2010 fax: 847.526.3993

Visit ETFdesign.org for updates and additional information.



COMPETITION RULES: Entries must be received by the ET Foundation® at the address above by **March 29, 2021**. Submission of an entry acknowledges the right of the ET Foundation to use the entry for exhibition and publication. All entries received shall become the property of the ET Foundation. Entrants may request that their entries be returned at the conclusion of the competition at their own expense. The ET Foundation is not responsible for any lost, late, or damaged entries. Winners shall be selected by a panel of independent judges chosen by the ET Foundation. If any category yields no entries deemed by the judges to address adequately the competition criteria, a prize will not be awarded in that category. Winners will be announced via a news release posted to the ET Foundation website and disseminated to the media. All taxes due on cash awards are the winner's responsibility. Entry into the competition constitutes permission to use the entrant's design and his, her or its name, likeness, and affiliation for promotional purposes without further compensation.

Any person signing the application on behalf of a company, firm, or organizational entity represents and warrants that he or she has authority to enter the competition on the company's behalf and bind the company to any and all competition rules. All entrants agree to be bound by any and all additional rules established by the ET Foundation for the competition.



www.ETFdesign.org

1000 N. Rand Road, Suite 214
Wauconda, IL 60084 USA

2021 Aluminum Extrusion DESIGN COMPETITION

Open to Students

Call for Entries!

Enter for your chance to win student scholarship awards.

Details Inside

ENTRIES ARE DUE MARCH 29, 2021



@AlExtDesignCompetition



@AEC_org



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