



Eligibility and Entry Requirements

Teams will perform all aspects of creating a new Halligan Bar exploiting the forging manufacturing process from design conception to performance. All four (4) components of the project should be submitted. All students must:

1. Provide a preliminary plan (one page)
 - Rough outline of steps
 - Tentative timeframe
 - Questions/issues they need to address
 - Preliminary decisions they've made (material, forging process, etc.)
2. Make their version of a Halligan Bar
 - Your bar should weigh no more than 6 kg (13.2 lbs.).
 - Your bar should not be longer than 1 m (40 in.) in overall length.
3. Document their project with a professional Technical Report of less than 30 pages supporting their decisions.
4. Produce a Project Video, not to exceed 5 minutes, that documents their project.

All project components submitted for the competition become property of FIERF.

TEAMS

Teams must have:

1. Student teams who will design, build, and test their Halligan Bar. At least one member must be a current college student. Teams are limited to 8 members.
2. A university faculty sponsor to help the team.
3. An industrial partner familiar with forging.
4. Including one high school student on the team is encouraged. If the team has a high school student, they should also submit an addition to their report from the student about what they learned, less than two pages.

AWARDS

Each Halligan Bar entry will be eligible for 5 awards and a Grand Prize:

1. Best design and process.
2. Best authentic Halligan Bar design for the form, fit and functions but the team can use any materials they wish for their entry.
3. Best forging.
4. Best project video documenting the project.
5. Best performance based on testing and expert evaluation.

Grand Prize based on the top 5 rankings from 1-5 above. Weighting of the scores will be (1) Design and Process 25%, (2) Halligan Bar Authenticity 15%, (3) Forging 25%, (4) Video 10%, and (5) Performance 25%

IMPORTANT EVENTS & SUBMISSION DATES

Monday, August 7, 2023
Friday, December 1, 2023
Friday, March 29, 2024
Friday, March 29, 2024
Thursday, April 25, 2024*

Contest Announcement for FIERF's 2024 Forging Competition.
Proposed teams, and preliminary plan due.
Project video, technical report, and Halligan Bar due.
Halligan Bar due
Performance testing and awards in Milwaukee, WI.

*For the testing on Thursday, April 25, teams, and mentors are highly encouraged to attend and compete with their Halligan Bar.

All electronic submissions should be sent to Amanda Dureiko at amanda@forging.org.

Mail your Halligan Bar to:

**Renee Mueller
SFSA
780 McArdle Drive
Crystal Lake, IL 60014**

Other:

- **Laws and Regulations:** All participants should carefully investigate and act in compliance with all local laws and any pertinent institutional rules and regulations regarding the handling of items fabricated for or entered into the competition.
- **Safety Practices:** Best practices for laboratory safety and safe material handling are required. Evidence of this is an essential component of the judging criteria.

Safety

Safety is the number one priority for all teams entering the Forging Competition. Students must always apply safe practices and failure to properly address safety concerns will result in automatic disqualification. All teams are required to coordinate with a faculty advisor and appropriate campus safety personnel to discuss safety procedures, identify potential hazards, and complete safety training prior to participating in the competition. All students must complete any required safety training at their home institutions before using specialized equipment and facilities. It is also recommended that all students review the following important safety courses in [Forging University](#) as a starting point before entering the laboratory/shop environment.

- Safety & Health Orientation in the Forge Shop
- Press Safety in the Forge Shop
- Hammer Safety in the Forge Shop
- Forging 101

Contact Lorean Crowder at lolean@forging.org to receive access to the classes above.

Example:





Forging Competition Technical Report Guidelines

TECHNICAL REPORT MUST CONTAIN:

Your technical report must not exceed 30 pages. (This will include your cover page and resources pages so clear and concise writing is necessary)

1. Cover Page:
 - Must use the outline of this [cover page](#).

2. Address the following:
 - State the reason for the competition: “FIERF has created this competition to encourage students to learn about making metal products using the forging process and applying the latest technology available”. This should be in the introduction of your Technical Report.
 - *The historical background and accuracy of your Halligan Bar and explain why your Halligan Bar is an authentic Halligan Bar.
 - *Your design process and the steps you took to get to your final product.
 - *Your final results should show that it meets contest requirements (state the final length, weight, and materials of your Halligan Bar).

*Present each in the one-page executive summary as part of your technical report.

3. Other suggested topics that can be addressed in your technical report:
 - What metallurgical decisions were made with respect to your Halligan Bar?
 - What type of forging process was selected, what led you to that decision, and the forging process steps you used while creating your Halligan Bar?
 - What kind of inspection and testing your Halligan Bar were subjected to before submission?