

## **Welding Fabrication 2022 Regional Competition Instructions**

Your Welding Fabrication Team has been tasked with the job of manufacturing a bookshelf. Please see the 2022 Regional Welding fabrication Blueprints for details on the project.

### **Procedures for building the project:**

1. Only the three students participating in the competition are to work on the project.
2. Students should complete a portfolio of their planning and production of the project with photos of work along the way.
3. The finished project is to be brought to the location of the Regional Welding Competition.
4. All three team members must be present at the Regional Welding Competition and be prepared to display their finished project and participate in an interview with the judges.
5. The projects will be graded based on their accuracy and quality in relation to the blueprints.
6. The portfolio will be used to validate the process and work completed in the project.
7. Each team will take a written or on-line assessment as part of the interview process.
8. Schools will be able to keep the projects.

### **Rules and Requirements for Project:**

1. Project is to be assembled/welded as show in the drawings.
2. NO post-weld grinding. Points will be deducted for any post-weld grinding.
3. Students may cut materials with any cutting process desired (I.e. Metal shear, plasma, oxy-fuel CNC etc.)
4. SMAW/FCAW/GMAW/GTAW are the only processes to be used in fabrication and assembly of the project.
5. Project can be welded with just one or any combination of the processes listed above.
6. No paint or clearcoat is to be used on the project.
7. Student will decide type/size/location of welds on fabricated parts and be able to explain those decisions during the interview.
8. Student will add weld symbols to drawing that was used during fabrication of the project and the weld symbols may be drawn in ink.
9. It is up to the Fab team to determine shelf adjustment locations based on functionality and mark their drawings with locations.
10. IMPORTANT: The SkillsUSA Logo is optional and will not be judged.

### **At the regional contest you will need to:**

1. Provide at least 3 photos
  - a. Initial Plate with markups of how you will cut it.
  - b. Materials once cut into proper dimensions. Include waste in your photo.
  - c. Fully assembled bookshelf. A copy of the plans that you designed showing the welding symbols.
2. These may be drafted on computer or by hand.
3. Be ready to explain why you used the welds you did and the decision-making process.
4. Demonstrate the adjustability of the shelf.