

2022 SC SkillsUSA

Welding

Individual Contest – Lincoln Electric

And Fabrication Contest (3-man team) – Miller Electric



Tri-County Technical College
Industrial Technology Center
Welding and CNC programs
5321 Highway 76
Pendleton, SC 29670

- State level **WILL REQUIRE** resume 2022
 - To be submitted on-line prior to the event
- **Criteria for Disqualification**
 - Safety risk
 - Due to attire, CAN be determined by any Judge @ any time
 - Unsafe act, CAN be determined by any Judge @ any time
 - Not having required tools, equipment, PPE
 - NO Cellphones allowed to be used by competitors on shop floor
- Instructors will not be allowed in contest area on day of contest 5/7/2021:
 - After event begins
 - Area will be provided for waiting IT 103
 - Snacks / coffee will be provided by Sponsors
- Rags recommended to clean materials, ONLY non-flammable cleaners / degreasers allowed
 - To be provided by each school
- Limited Grinding – contest materials to be CRS
 - Grinding to be done in booth
 - To deburr
 - Feathering tacks
 - Grinder, abrasives, extension cord, face shield, hearing protection to be provided by your school
 - All personnel grinding or in weld booth when grinding is taking place are to have required PPE **ON**
- Safety, Safety, Safety at all times!!!!



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- Any time in the welding lab area requires safety glasses **AT ALL TIMES**
- Point Deductions of 10 points **per witnessed unsafe act**
 - Sum TOTAL from all judges through all portions of contest
- GTAW Torches, Air-cooled, 17V
 - Depending on machine, set-up may differ, whether connected to machine with quick connect or typical external dry-rig set-up connecting to the SMAW electrode holder
 - All GTAW torch components to be supplied by competitors
 - Collet
 - Collet Body or Gas Lens
 - Cups
 - Back cap
 - Tungsten
 - GTAW Aluminum – Completed welds
 - NO wire brushing of completed work piece, project welds
- OFC – Propylene fuel gas
 - Harris cutting apparatus
 - Bulk gases / NO Bottles
 - ALL OFC to be done MANUALLY, **NO** track torches or aids
- FCAW
 - .045”
 - 75/25 Shielding, provided by bulk piped into lab, no individual bottles
- GMAW
 - .035”
 - 75/25 Shielding, provided by bulk piped into lab, no individual bottles
- Equipment:
 - Individual Contest
 - 6 LE Flextech 450, GMAW
 - 6 LE Flextech 450, FCAW
 - 6 LE Aspect 230, GTAW Carbon
 - 6 LE Aspect 230, GTAW Aluminum
 - 6 LE 350 MP, SMAW



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- 6 Harris Torch
- Fabrication Contest (3 Man Team)
 - 6 Miller XMT 304, GMAW
 - 6 Miller XMT 304, FCAW
 - 6 Miller Dynasty 200, GTAW Carbon
 - 6 Miller Dynasty 200, GTAW Aluminum
 - 6 Miller Maxstar 200, SMAW
 - 6 Harris Torch
- Consumables provided by Lincoln Electric and Miller for their portion of the contest
- Raw Materials being provided by SkillsUSA
- Project plans will NOT be available in advance
 - Project plans will be issued at the contest start ONLY
 - Project plans will only be handled by event coordinator prior to the event start
- An area will be designated for each competitor to submit project
 - In lab where welding process took place
 - Project to be identified by contestant# / team #
 - Those who finish at the cutting stations
 - Refer to lab layout for location for depositing completed project
- Projects will be referenced throughout the scoring process and discarded after the day's event
 - Students are ONLY to handle their project
 - Students are NOT to handle projects after event completion / submission
 - Instructors will NOT be allowed to view, handle, or leave with completed project
- Competitors are responsible to maintain possession of your tools through the day and deposit project at end of each process portion
 - **Miss placing of your project is grounds for disqualification**
- Safety to be assessed throughout the day and point deductions tallied at events END
- Attire deduction made as a ONE-time penalty of a 50-point deduction. Depending on the significance of the infraction, could result in disqualification if deemed a safety risk by any judge at any time.
 - Example, overly worn and hole ridden attire creating a fire safety concern
 - Example, trying to weld in a sleeveless shirt



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- Example, foot covering, running shoes
 - not all leather
 - or low cut exposing the ankle
- Judging
 - Plans are for ONE Judge per process in each contest
 - OFC
 - SMAW
 - GTAW
 - GTAW Aluminum
 - GMAW
 - FCAW
 - Students are responsible to seek out the judge, for that process, at required inspection points
 - Mandatory Inspection points:
 - Tacked, in position, ready to weld
 - Each layer of weld
 - Finished weld
 - Others as requested by the Judge
 - Missed inspection points will be assessed a score of ZERO
 - Judging results are final
- The sponsors are providing drinks during the contest event for the students.
- The sponsor of their respective contest is providing lunch for the students.
- Any adjustments mid-contest
 - An ALL STOP will be called
 - Announcement to ALL at once in showcase area
 - Time shifted to account for lost time and adjustment to schedule announced
- In an effort for volunteers involved in conducting of the event to be identifiable, they will be wearing different colored safety vests according to their role:
 - Judges
 - Fab (Miller) – Blue
 - Individual (Lincoln Electric) - Red
 - Shop representatives (TCTC) - Green



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- Contest director (TCTC) – Black

Questions, concerns, or needing clarification to info provided please send questions to the e-mail address below.

All questions submitted will be answered as an additional teaching chair update for all to see.

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