

Nebo WELDING EXPO



Official Rulebook 2017

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OVERALL GOAL OF THE WELDING EXPO

The bottom line goal for this event is to bridge the gap between the High School Welding Programs and the need for welders, fabricators, and trendsetters within our society using this skill they acquire in our shops. This is a high school event where only high school students can compete to demonstrate their abilities and to create a fair event. This event was designed to give every welding student, who wants to participate, a chance to compete regardless of their welding experience as a beginner, intermediate, or advanced student.

The Welding Expo is to support students within this career path and expose them to welding vendors, higher educational welding schools, unions, and companies seeking welders, fabricators, and innovators that are among our student population. This event is to help them understand the limitless possibilities within the field of welding and to help motivate each student to become more involved in this profession.

As a committee, we feel that competition is a great way to help students gauge their abilities among their peers. Students thrive off the opportunity to showcase their abilities, creativity, and innovative skills. If a student designs and fabricates something within an educational environment, we feel that the student should be recognized for their efforts and be rewarded. This event will do this. We have created five different categories to encompass all interests of the welding students.

This event will draw a lot of public attention for the need of this trade within the educational system, by participating; all of our programs will be highlighted and justified in the eyes of our biggest stake holders-the public. We realize that every program throughout the state has an instructor who represents the backbone for their school. Please distribute this information to your students to help them get involved. We feel that when students participate in a competitive setting, it only prepares them for the reality to come within this career path.

Please have the students read and follow the rules within each category to assure that they can participate on the day of the event. If any clarifications to the rules need to be resolved don't hesitate to contact the committee member assigned to the categories.

Sincerely,

Welding Expo Committee

GENERAL RULES PEDAL POWERED DRIFT TRIKE



Description of Competition: **This competition will be a heads-up style race that the participants will need to navigate a marked course through obstacles to determine the winner. Each trike must be pedaled throughout the race-each race will have multiple competitors. The top three racers will be rewarded. This competition is to promote best design and fabricating practices for anyone interested in competing using a minimal budget.**

1. All trikes need to be pedal powered for this competition. (No other form of can be used)
2. **No motors will be allowed for the Pedal Powered competition.**
3. The frame must be fabricated, only the headset and forks off of a bicycle will be accepted as part of the finished trike.
4. The drift trike must have plastic wheels or wheel covers-any type will work (PVC, C900, green machine wheels, anything that is made of plastic)
5. The size of wheels is determined by the fabricator.
6. Your trike must only have 3 wheels with 2 of the 3 being plastic or covered with plastic.
7. It must have a minimum of **3” of ground clearance** (from the ground to the bottom of the trike)
8. To navigate the course your trike must not exceed **50” in width** and **60” in length** maximum. (If your trike is wider or longer than the dimensions stated it will not be able to compete)
9. This drift trike has to have a front bicycle brake system to participate at the Welding Expo.
10. The **seat height cannot exceed 12”** from the ground level.
11. A **DOT** approved helmet must be worn if your team is participating in this competition.
12. No open-toed shoes will allowed as participants race on the course.
13. Only **one driver** per trike-all drivers have to use the same frame throughout the competition-each contestant will be issued a tag that will identify the driver and their entry.

Contact Andy @ andy.neves@nebo.edu regarding this competition.

GENERAL RULES MOTORIZED DRIFT TRIKE



Description of Competition: **This competition will be a heads-up style race that the participants will use a motorized drift trike to navigate the course. The track layout will be mirrored and competitors will start at the same time and the first one to cross the finish line wins. We will be using a double-elimination format to determine the overall champion. The top three racers will be rewarded. This competition is to promote best design, fabricating practices, innovation, and creativity. All rules regarding gear ratio, motor, and tire size with coverings need to be strictly followed to compete.**

1. Materials used to construct the drift trike will be up to each participant.
2. The **Predator 212cc Harbor Freight motor** is the only motor used to compete-no exceptions.
3. All trikes will use **10" C900** pipe to cover the rear wheels-only C900 pipe will be used for the competition (light blue, light green, light purple or pink will be allowed) No fuse-able (black) or irrigation pvc (white) can be used. The pipe must be in new or like new condition with no modifications. The C900 must cover all the rubber surface on the outer diameter of the tire.
4. **Absolutely NO INTERNAL or EXTERNAL** motor modifications will be allowed in order to compete; the only **exception** is an **exhaust pipe modification**-students like loud noises.
5. All competitors will need to use the exact same gearing to compete: **10Tooth** driver (front gear) for **#41** chain, **54Tooth** (rear gear) for a **#41 chain**.
6. The On/Off switch on the motor has to be accessible to the driver.
7. A seat is required to participate and the seat height **cannot exceed 12"** from ground level.
8. Your trike must only have 3 wheels. (Dually wheels can be used if using Harbor Freight style rims/tires if they are **completely** covered with C900 pvc pipe.) 2 of the 3 must be covered.
9. The drift trike has to **have a mandatory braking system** to participate in the Welding Expo and has to conform to instructor's approval of safety and pass the inspection by the race committee.
10. Only **one driver** per trike-all drivers have to use the same frame throughout the competition-each contestant will be issued a tag that will identify the driver and their entry.
11. Each drift trike will be inspected by the instructor to confirm all rules have been followed and then also inspected by the race committee on the day of the event. (A check-off list will be sent to every instructor, along with these general rules.)
12. A **DOT approved helmet** must be worn by your driver to participate in the race.
13. This competition is judged by a **double elimination** scoring system-the first trike to finish in each round is determined the winner-if both trikes break-down or don't finish they both receive a loss for that round.

Contact Jared @ jared.massic@nebo.edu regarding this competition



GENERAL RULES RAT ROD BUILD-OFF

Description of Competition: This competition is designed to encourage creativity and ingenuity with the theme of “Rat Rod”. This will be a car show style event that will be judged according to the rules. All projects need a portfolio of the build and need to track their efforts and progress throughout the time spent working on the project. There will be several winners within the Best of Show, Most Unique, and Most Innovative categories.

1. This competition is geared towards showmanship.
2. All projects must have a portfolio of the build that must include:



- | | |
|----------------------------|---|
| a. Blueprints of the build | d. Progress pictures |
| b. Hours invested | e. List of tools and welding equipment used |
| c. Parts used | f. Amount of money invested |



3. This competition will be judged according to the creativity, fabrication, innovation, along with the above stated items within a portfolio.

Contact Riley@ rhallam@alpinedistrict.org regarding this competition.

GENERAL RULES FABRICATION PROJECT



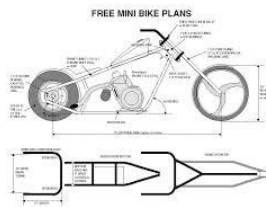
Description of Competition: This competition is designed to showcase the projects built within a welding course. This is an all-inclusive competition it doesn't matter how big or small the project is! This will be a fabrication style event. All projects need a portfolio of the build and need to track their efforts and progress throughout the time spent working on the project. There will be several winners within the Best of Show, Most Unique, and Most Innovative categories.

1. This competition is geared towards the innovator within the welding programs.
2. All projects must have a portfolio of the build that must include:

a. Blueprints of the build	d. Progress pictures
b. Hours invested	e. List of tools and welding equipment used
c. Parts used	f. Amount of money invested
3. This competition will be judged according to the creativity, fabrication, and innovation.

.Contact Brian @ brian.ostler@nebo.edu regarding this competition.

GENERAL RULES 6.5HP DRAG RACE



Description of Competition: **This competition will be a drag race between competitors. The drag strip will be 150' from starting line to the finish line. Any wheel configuration can be used, two-wheeled, three-wheeled, or four-wheeled is accepted to compete in this category. We will be using a double-elimination format to determine the overall champion. The top three racers will be rewarded. This competition is to promote best design, fabricating practices, innovation, and creativity. Safety rules need to be strictly followed to compete.**

1. Anything racing must pass a thorough safety examination by your instructor first, then by the Welding Expo committee. (There will be a safety inspection sheet sent to your instructor)
2. The frame must be fabricated, not manufactured.
3. Before competing there will be a **mandatory brake-check** on the drag strip, your fabricated project must be able to stop **within 75'** after running for **150' at maximum capability**.
4. A mandatory **chain guard** must be in place to protect the racer.
5. **DOT** approved helmet required to participate.
6. Motor base horsepower requirements (before mods) must be **6.5 horsepower** or lower to compete. (Not based off of CC's)
7. Injectable additives are allowed, but not recommended. (Due to the risk of blowing the motor)
8. Bolt on mods are accepted.
9. Exhaust mods are accepted.
10. Any clutch configuration is acceptable. (Centrifugal or Torque Converter)
11. There are no requirements or regulations regarding **gear ratios**.
12. Only **one racer** per project, each racer must continue on the same frame the entire competition- each contestant will be issued a tag that will identify the driver and their entry.
13. Anything that meets the base horsepower requirements (before mods) and meets the safety requirements are welcome to race.

For this event we invite the instructors to participate to encourage participation of their students, there will be a small trophy along with bragging rights tied to this event for them

Contact Kaleb @ kalebm@provo.edu regarding this competition.

IMPORTANT COMPETITION DATES & GUIDELINES

The final competition will be held at Spanish Fork Fairgrounds on **May 20th, 2017**

Address: **475 S Main St, Spanish Fork, UT 84660**

Check-In for this competition will be Saturday May 20th starting at 7:00 am- 9:00 am

Each participant can pre-register for a fee of **\$5 per event** (This must be postmarked by May 1st 2017) on the day of the event **each entrance** fee will be **\$10**

Pre-order an event t-shirt will be **\$5** or **\$10** on the day of the event.

Send payment to:

Spanish Fork High School/Attention: Nebo Welding Expo

99 North 300 West

Spanish Fork, UT 84660

The tentative schedule for this competition:

Check-In/Registration 7-9am

Motorized Drift Trike Race 9-noon

Rat Rod/Fabricated Projects Judged Noon-1pm

Pedal Powered Trike Race Noon-1pm

Drag Race 1-3pm

Awards Ceremony 3:30-4pm

This schedule is pending the amount of participants within in each category

Students are allowed to enter more than one category

All projects will need to be removed from the facility by 6pm on May 21st, 2017

All other questions or concerns regarding this event contact Shaun @ shaun.black@nebo.edu

