



## Contest Overview and Suggested Tools Supplied by Contestant

**\*\*For All Hand-Out Material Go To\*\*:** <https://drive.google.com/drive/folders/1q1Q2b3vGiRpnLLkXRYu6AtnFWdW51UA>

Contests will be required to supply their sandpaper, and any other material for air or hand tools.

### Fender Repair- Repair 3 dents one with Plastic filler

Go to <http://3mcollision.com/how-to/body-repair> Scroll down to 3M Metal Working Video's

Panel must be secured as if it is on a vehicle.

#### Required tools:

Various Metal Finishing Hammers and Dollies

D/A Sander and sandpaper with 6" hookit Disc

Right Angle Die Grinder W/ Roloc Disc attachment

**\*\*\*Blow Guns will not be allowed\*\*\***

**Velcro Sanding Blocks will be provided for this area**

### Welding-

Using a 220v welder with .030 wire.

Make 4 welds: Vertical 22ga on 16ga 6mm Plug welds, 16ga on 16ga 8mm plug weld, 16ga Butt with Backing, and one overhead 22ga Open Butt Joint weld. Refer to the Test Welds Sheet and a copy of the I-CAR Steel Welding Gauge.

**SEE the photo of the welding coupon test set-up.**

#### Required tools:

Welding Helmet with at least a #10 Lens

Welding Gloves and Jacket

Welding Respirator

Assorted Vice Grips (to hold metal together)

Side Cuts

### Plastic Bumper Repair-

- Make a 2-sided chemical repair on a 3" slit and a partially missing tab.

Go to <http://3mcollision.com/how-to/bumper-repair> Scroll down to 3M Plastic Bumper Front Side Back Side Repair Video

- Make a 2-sided nitrogen weld on a 3" slit using a Polyvance nitrogen welder. Go to <https://www.polyvance.com/video/nitrogen-hot-air-welding/skillsusa-crt-10-0-nitrogen-plastic-welding-proce-ss-2>

#### Required tools:

D/A Sander and sandpaper with 6" hookit Disc

Die Grinder with a Reamer Bit

Right Angle Die Grinder W/3" Roloc Disc attachment

### Structural Repair-

Will Read and analyze the printouts of structural misalignment sheet

from a Car-O-Liner Vision X3. As well as using a Tram Bar to measure underbody and upper body dimensions.

Students will also be tested on suspension components and suspension angles. Contestant's will also be tested on rail sectioning procedures.

#### Required Tools:

All equipment will be provided.