

canstruction

MEMPHIS CANSTRUCTION JR.

2024 COMPETITION

THE THEME FOR THIS YEAR'S COMPETITION: TECHNOLOGY & INNOVATION: THE EVOLUTION OF TRANSPORTATION

The 2024 Memphis Canstruction Jr. competition will be held at the University of Memphis Main Campus on March 22, 2024. Schools are limited to one team and may only submit one entry. The competition will involve design (in Tinkercad) and construction of a structure built of canned food. The goal of the competition is to engage students in a design challenge while benefiting people in need in our community. This year, we are excited to partner with CN, and to align the 2024 theme with CN's values. While all industries are changing because of technology and innovation, the transportation industry is poised to be at the forefront for years to come, with Memphis a key player.

Be creative and consider ALL modes of transportation as you design your entry!

CHECK OUT OUR WEBSITE TO LEARN MORE AND TO REGISTER

[HTTPS://WWW.MEMPHISCANSTRUCTIONJR.COM/](https://www.memphiscanstructionjr.com/)



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RULES AND REGULATIONS

- **All teams will design their structure using the free online 3D modeling software Tinkercad.**
 - Regarding color: teams are not expected to design each can in detail. Rather, use a cylinder with the dominant color(s) of the can and include a legend of which cans are represented by each color cylinder. What matters most with color is that judges can identify your creative use of labels. Do keep in mind that your built structure should resemble your model both in shape and color.
 - Models must be to scale. Cans in real life are different shapes and sizes, and your model should reflect that. Be sure to account for variation in can size and shape in your model.
- Maximum real-life size of any construction is 8'l x 8'w by 8'h
- Maximum size of the official team that actually builds the structure is five (5) people. Only 5 people will be permitted to build at one time. "Five people" includes those who are un-boxing cans, organizing cans, cutting foam-core and other materials, etc. 5 means 5. Period. Teams may swap out members and are allowed a maximum of 15 minutes for transition. Regardless of how many people in the school participate, five people must be selected as the official team members. When designing the structure, aluminum food cans of all sizes may be used. Some food manufacturers are switching to plastic. If using plastic, make sure they can take the pressure of cans from above.
- No glass containers allowed in the design.
- No pet food.
- No alcoholic beverages.
- Use of soda or junk food – depending on the jury, you run the risk that they will penalize you for using non-nutritional items, i.e. you will lose. Remember the food banks need nutritional food, not junk food. Make every effort in designing your structure to use edible, nutritious foods.
- Designs must be intended for full, unopened cans, and with labels intact and legible. Designs may not call for labels to be covered, stripped off or altered in any way.
- Use of boxes and bags in design plans are strongly discouraged. The name of the competition is Canstruction. Jurors prefer to follow the name of the competition and in recent years structures with boxes did not score highly.
- Props are strongly discouraged. Jurors prefer pure food structures. Try to solve all design problems with food items. All things equal, a structure with props will be the loser when judged against a structure with no props. (Example: a structure that has eyes. One entry uses black cans to make eyes; another entry cuts out black circles of paper and pastes on cans for eyes. Once the jury sees that eyes can be made from cans or a food product, any entry that used paper cutouts is in disfavor.) Sponsor funds will not be used to buy materials for props.
- Teams are responsible for leaving their site "broom-clean."

ACQUISITION OF CANNED GOODS

- Participating schools are responsible for obtaining their own supply of canned goods with the funds supplied from ASCE. Schools are encouraged to solicit additional donations of canned goods or conduct student/faculty canned food drives.
- Cans should be packed in sturdy cartons and labeled with team name.
- Save all packing boxes. Boxes must be used to repack cans at the end of the competition. Save and bring additional packing boxes to the site for de-canstruction.
- Cans may be delivered to the site on March 22, 2024, between 8-9 am.

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AWARDS WILL BE GIVEN IN THE FOLLOWING CATEGORIES:

- **BEST MEAL**
- **BEST USE OF LABELS**
- **STRUCTURAL INGENUITY**
- **JURORS FAVORITE**
- **2 HONORABLE MENTIONS**
- **FOOD BANK HERO**

STRUCTURES **MUST** BE STRUCTURALLY SELF-SUPPORTING

Permissible materials:

- Cardboard tubes used as guides must also be limited to one-quarter inch thick.
- Velcro
- Tape, clear and double-faced
- High-tension rubber bands
- Nylon string
- Wire
- Tie-backs
- One-quarter inch thick foam-core, cardboard, masonite, plywood, plexi-glass – for the purpose of leveling or balancing materials and not as load bearing. A structure where ¼" leveling material is not visible is judged superior to a structure where it is in plain view.

NOT permissible materials:

- 2x4's
- half-inch plywood
- half-inch thick tubing
- sheet metal
- permanent adhesives.

TIMELINE AND DELIVERABLES

- **FEBRUARY, 16 2024 – REGISTRATION CLOSES**
- **MARCH 1, 2024 – THE FOLLOWING ARE DUE VIA SUBMISSION FORM FOUND ON THE MEMPHIS CANSTRUCTION WEBSITE:**
 - Title and Description of the entry. Description should be no longer than one paragraph. Description cannot contain the name of the school as this description will be given to the jurors with no other identifying information so that all entries are judged anonymously. The descriptions are most helpful in drawing the jurors' and publics' eye to the rich detail in each design. Don't get caught up in making long drawn out philosophical statements – keep it short and let your entry speak for itself. Spend your time describing the choices you made in cans and labels to articulate your theme, your use of double entendres with label names, play on words, themes, etc.
 - Team name and school name the way they should appear in the program.
 - Number of students participating in competition
 - 3D model of entry. Export your model as a .glb file and upload it via the submission form. Other 3D object filetypes (.obj, .stl) do not include color.
- **MARCH 22, 2024 – BUILD DAY (8-9 AM LOADING; 9 AM – 2 PM COMPETITION)**

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THE FOLLOWING MUST BE PROVIDED THE DAY OF THE BUILD:

- Detailed "shopping list" of all cans. (name of each can and quantity)
- Total number of cans used in your design.
- Receipts for all cans purchased with sponsor funds.

BUILDOUT

- Do as much prefabrication of foam core or other special materials you require.
- If you have a chance to practice building in your school take that opportunity to lessen surprises at the site.
- Come with plenty of extra supplies – over estimate.
- Build-out is from 9:00 am – 2 pm on March 22, 2024. Be On Time.
- Boxes must be saved out of sight for repackaging at the end of the event.
- When your structure is completely finished send a representative to the site manager to officially sign out.
- Lunch will be provided at 12:00 at the build site for all participants.

JUDGING / AWARDS CEREMONY

Make sure all team members know the following:

- Judging is done anonymously.
- No signage may be by the structure until the jurors have left the area.
- Team members cannot be present at the time of judging.
- Judging will commence at 12:00 on March 22, 2024.
- Be prepared to rebuild anything that may have fallen prior to the judging.
- The Awards Ceremony will take place at 1:15 on March 22, 2024.
- Winning teams will have their photos taken at the awards ceremony. After the winners are announced, the winning teams are asked to go to their structures and wait for the photographer.



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