

Electric Car Race

Teams will design, build, and bring to the competition a car to be powered by two AA batteries. The car must carry three (3) standard 355 mL cans of Coca Cola down a 1.5 m wide course, to the finish line 10 m from the start line.

The car:

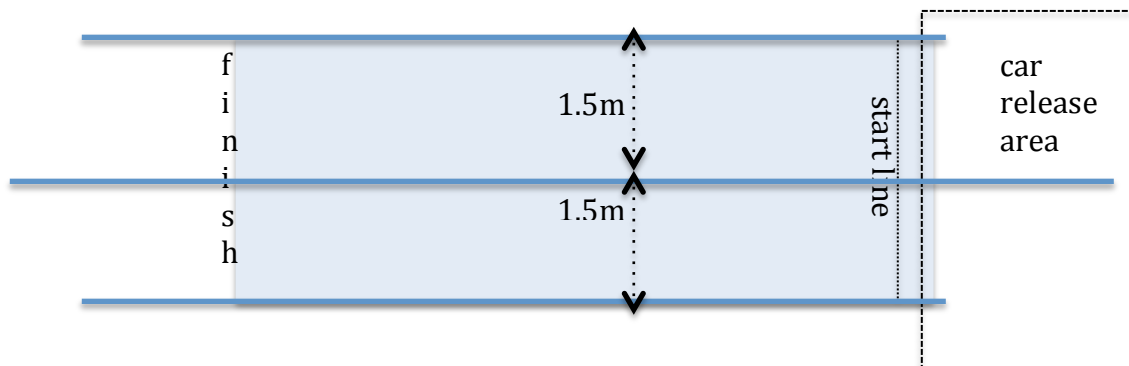
Must be assembled by the team. Must have a chassis and at least 3 functioning wheels which are attached to axles. Parts may be purchased or harvested from toys, but kits or ready-made cars are not allowed. 3-D printing of components is allowed but the team must be prepared to show proof that they did the printing themselves (provide photos at several stages of the print). If your car looks like a factory-made car, you should be prepared to show photos at several stages of the manufacture to prove that you made it yourselves. The cars must race using the two AA cells provided by race organizers, similar to these depicted below. The electrical energy from the AA cells is to be the only source of energy for the cars. The judges reserve the right to veto any design that they deem counter to the spirit of the rules. Check in advance if you are unsure.



The course:

Will have two lanes, each 1.5 m wide and 10 m long, on a level floor. Dimensional lumber will line the edges of the lanes. Cars are allowed to touch the lumber but not cross over. If cars run into the lumber and become stuck, they are deemed not to have finished the course.

Once released the cars must travel the length of the course by themselves and not be touched or interfered with in any way. Remote control is not permitted.



The race:

This is NOT a timed event. Two cars at a time will race down the course, and the first car to touch the finish line is the winner of that heat. Pairings will be determined by random draw. The winner advances to the next race.

The car is to be released fully behind the start line by one member of the student team at the sound of a buzzer. One false start per team is allowed, but a second false start will result in disqualification. The student will release their car from an area behind the start line, shown on the diagram above. Teams will be kept clear from the sides of the course so as not to interfere with the race.

Judges will do their best to judge accurately, and we ask that teams accept their judgements as final and not subject to appeal.

The grand finale:

One car from each block will compete at the end of the day. The winner of this final race will earn extra credit for their team.