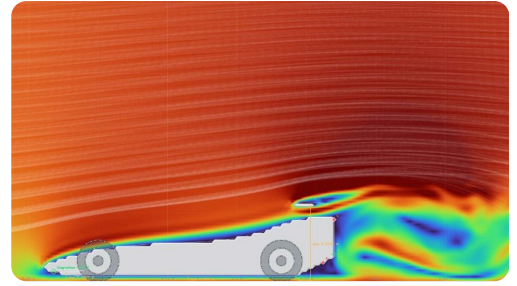


WindCanvas for STEM Racing

A real-time wind tunnel that runs in the browser, made in Western Australia.



What it is

Teams draw or import a side view of their car (a photo, a sketch, or an SVG or DXF from CAD) and see the airflow, drag and lift live, in 2D and 3D, on ordinary school laptops. No installs, no student accounts, and no student data collected.

Honest about accuracy

Within a few percent of textbook values on the standard 2D benchmarks. Best for comparing designs and understanding the flow, alongside full CFD and physical testing. Details: windcanvas.com/accuracy/

Checkable by judges

Every report shows its fidelity grade (A to D), the cells across the body and the simulated Reynolds number beside the real one. Judges can open a team's project file in the free browser version and run it again; the guide explains which claims are fair.

Why teams use it

They compare design changes in minutes, one at a time, and every result carries a fidelity grade. Runs save as project files and A4 reports, so judges can open the evidence and run it again.

Runs where students are

Any recent Chrome, Edge, Firefox or Safari with WebGL2: Windows PCs, Macs, Chromebooks and iPads, using the laptop's own graphics chip.

In our test

A 210 mm car imported from a side view, 5 mm above a moving floor at 20 m/s: lowering the rear and tapering the tail cut its drag by 37 % in the free version and by 31 % at High resolution. That is the workflow: compare versions, then check the important changes at a higher resolution.

The offer, free

1. **A Maker licence for every registered team** for the 2027 season. Teams email support@windcanvas.com with their team name, school, country and registration; we check it and reply with a link.
2. **Pro licences as prizes** for the winning team at finals.
3. **A guide for teams and judges** at windcanvas.com/stem-racing/, and a free lesson pack for teachers at windcanvas.com/teachers/.

For schools

Classroom licence US\$149 a year (30 school computers, plus students' home computers); whole school US\$399 a year. Buy online or ask for a quote; invoices and receipts come from Polar, our reseller.

Contact

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