

Modular Relief Rover Challenge

Help students build, substitute and document
a working rover

Education kit partnerships

One rover, two repeatable runs

RUN A

Deliver 100 g

Carry the item to the finish and report completion.

RUN B

Replace the display

Swap a non-safety-critical display. Repeat the same delivery mission.

Closed course. 180 seconds per run.

Maximum envelope 40 × 40 × 40 cm Total mass $\leq$ 3 kg
Speed limit 0.5 m/s Safety systems remain unchanged

Concrete needs for the student kit

Rover foundation

Chassis, control board, motor drive and an accessible stop.

Display A and B

LED or text display modules with documented connectors and drivers.

Printable parts

Payload tray and mounts, with files, material choice and print settings.

A reproducible lesson

Wiring, starter code, datasheets and a technical mentor.

TDTH qualifies the assembled kit before student use.

Partner visibility at the point of use

Your component in a student build

- Prominent, authorized logo beside the relevant component.
- Linked datasheet and a clear explanation of what it does.
- A repeatable kit lesson with wiring and example code.
- Student BOM and project showcases, with consent.

Sponsorship stays separate from scoring, source review and integration tests.

Traceable non-PRC supply for each revision

The supplied hardware is the unit of review.

- Identify the exact SKU, revision and manufacturing origin.
- Provide traceability for critical components and firmware.
- Disclose cloud services, remote control and update dependencies.
- Resolve sourcing questions before kit approval.

The same evidence requirements apply to every supplier and sponsor.

A kit proposal starts the conversation

Existing kit or a proposed education version

Send the exact model, sourcing evidence, lead time and your technical contact.

Samples, mentors and printing materials are welcome. We can also discuss financial sponsorship.

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tdth.org/marketplace/relief-rover/

Educational challenge. Marketplace grid exercises do not model hardware physics.