



2026 / 2027 SEASON

WESTERN ENGINEERING MOBILE ADVANCED ROBOTICS SOCIETY

Sponsorship Package

50+

Active members during the academic year

2

CIRC competitor; applying to URC

Gen 3

All-new rover with swivel drive & 6-DOF arm

Inside this package

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About WEMARS

WEMARS (Western Engineering Mobile Advanced Robotics Society) is a student-led, multidisciplinary engineering team at Western University. Founded in 2010, we began by helping establish London's first FIRST Robotics Competition teams. Our first Mars rover followed in 2017. We debuted at CIRC in 2018 (10th of ~14 teams), then returned in 2024 after a long hiatus. Today, we design, build, and test Mars-analog rovers engineered entirely in-house.

Our team spans mechanical, electrical, software, science, and business subteams, each responsible for a critical part of the rover and the organization behind it. During the school year we typically field around **50 members**, with a core group of roughly **15 students** continuing development through the summer.

We compete at the **Canadian International Rover Challenge (CIRC)** in Alberta and are applying to compete at the **University Rover Challenge (URC)** in Utah for the 2026/2027 season, two of the most demanding university robotics competitions in the world. Tasks include autonomous navigation, robotic arm manipulation, science sample analysis, equipment servicing, and search & rescue scenarios across harsh, Mars-like terrain.

Leadership structure

- President & Vice-Presidents
- Dual leads per subsystem (Mech, Electrical, Software)
- Business, Science & outreach coordinators
- Project-based teams within each subteam

What we build in-house

- Chassis, drivetrain & robotic arm
- Power distribution & custom PCBs
- Autonomy, vision & control software (ROS2)
- Science payload & sample handling



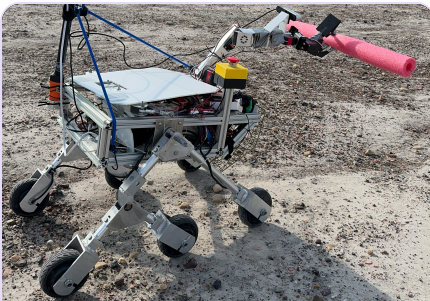
WEMARS general meeting at Western University. Our team typically fields 50+ members during the academic year.

From rebuild to top 5

Our first rover was built in 2017. We competed at CIRC in 2018, then stepped away through COVID and rebuild years—though members kept designing in CAD and planning for a lighter, modular chassis. We returned to Drumheller in 2024 after a long competition hiatus, rebuilt membership to 50+, and are now designing Gen 3 from the ground up. Our goal when we return next summer: a top-five finish at CIRC.

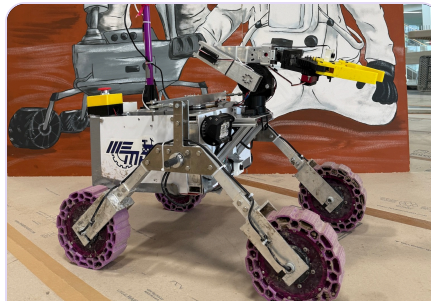
THREE GENERATIONS OF ROVERS

Our current platform line reflects that rebuild: each generation since our return has taught us what to carry forward and what to rethink entirely.



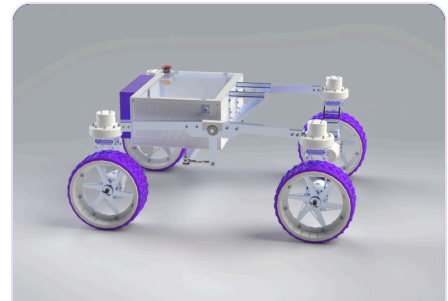
Generation 1

Rocker-bogie · CIRC 2024 · 27th of 28 teams



Generation 2

Competition rover · CIRC 2025 · 15th of 26 teams



Generation 3

Swivel drive · Spark Flex · 6-DOF arm in build

CIRC 2024 (Gen 1)

Competed with our Gen 1 rover and placed **27th of 28 teams** (27.17 pts) in our first CIRC back after the hiatus. Tough results, but critical lessons that shaped every design decision since.

CIRC 2025 (Gen 2)

Jumped to **15th of 26 teams** (126.03 pts), including a strong reactor maintenance run, proving how fast the team could iterate between builds.

2025/2026: Build year

Competition hiatus dedicated to designing and manufacturing our third rover with no shortcuts and no legacy compromises.

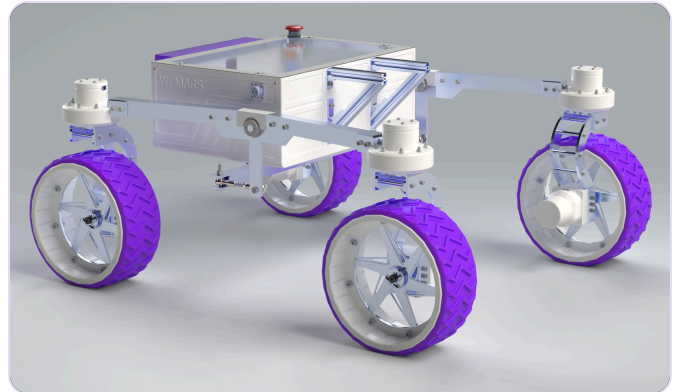
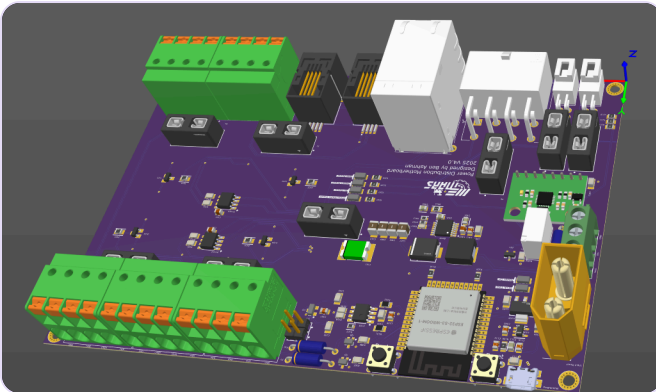
2026/2027: Return to competition

Targeting a **top-five finish** at CIRC and applying to compete at URC with a rover built for every core task.

Third-generation rover

THIRD-GENERATION ROVER HIGHLIGHTS

Our new platform represents a major step forward in mobility, manipulation, and onboard electronics, optimized for competition performance at roughly **22 kg**.



Left: Gen 3 power distribution motherboard (V4.0). Right: Gen 3 CAD render, currently in manufacturing.

Mechanical

- **Swivel drive** using Robstride EduLite 05 modules for omnidirectional agility
- **REV Vortex** motors, upgraded from in-hub motors for better control and serviceability
- **6-DOF robotic arm** currently in build; designed for dexterity tasks and payload swaps
- Newly designed chassis optimized for weight, saving ~1.2 kg over the prior generation

Electrical & software

- **PDB motherboard** supporting 6S LiPo, CAN communication, and modular daughterboards for the arm and GNSS
- **GNSS with RTK** using the u-blox ZED-F9P for centimeter-level positioning onboard
- **ROS2 stack** integrating LiDAR, cameras, and IMU data for localization and autonomous navigation
- **Custom C++ WebRTC stack** for low-latency video and telemetry streaming to the operator control station

Outreach & visibility: This season we're expanding beyond the lab, including Western's Open House, public demo days, and sponsor-hosted events that connect our team with the community and your brand.

Why sponsor WEMARS



STUDENT-LED ENGINEERING

Our members design, solder, machine, and test real hardware every week. Sponsors support that hands-on pipeline from concept to competition, not a classroom exercise.

From oscilloscope bring-up to field testing, WEMARS is where Western engineering students learn by building.

BRAND & COMMUNITY

Your logo travels with us on the rover, at competition, across our website, and through social media seen by students, faculty, industry, and competition audiences across North America.

TALENT PIPELINE

Our members graduate into mechanical, electrical, software, and systems roles across aerospace, robotics, automotive, and tech. Silver and Gold partners receive access to our **resume book** and recruiting touchpoints.

REAL ENGINEERING, REAL RESULTS

Sponsors don't fund a slide deck. They fund CAD, machining, PCB spins, field tests, and competition runs. We share progress updates, photos, and post-season reports so you see the impact.

FLEXIBLE PARTNERSHIPS

Cash, in-kind parts, machining time, and services all count. We work with startups, local shops, and national firms, and we'll tailor a package that fits your goals.

Where your support goes

We don't ask sponsors to fund a single line item. Your contribution strengthens the whole program. Here is how resources are typically allocated across a competition season:

Rover development

- Mechanical materials, fasteners & arm components
- Motors, motor controllers & drivetrain parts
- Electrical components, PCBs & batteries
- Prototyping, machining & fabrication

Competition & operations

- Travel, lodging & registration (CIRC; URC if accepted)
- Team apparel, pit equipment & field tools
- Outreach events & university engagement
- Software tooling & testing infrastructure

Sponsorship directly enables us to compete at the highest level, iterate faster between tests, and represent Western University and our partners on the international stage.

Bronze · Silver · Gold

Three clear tiers designed for companies of any size. In-kind contributions are valued at fair market rate and may qualify for the equivalent tier. Custom packages are always available. Contact us to discuss.

Benefit	Bronze \$500+ CAD	Silver \$1,500+ CAD	Gold \$3,000+ CAD
Logo on website sponsor page	✓	✓	✓ Featured placement
Logo on competition rover	✓	✓	✓ Prominent placement
Logo on team apparel	✓	✓	✓ Prominent placement
Competition pit / display banner	No	✓	✓ Featured placement
Social media recognition (LinkedIn & Instagram)	No	2 posts + comp. updates	Dedicated campaign + thank-you content
Outreach & Open House visibility	Logo displayed	Logo + mention	Co-branded event opportunity
Invite to rover testing & demo days	✓	✓	✓ VIP / private demo
Resume book & talent pipeline access	No	✓	✓ Priority + recruiting touchpoint
Post-competition impact report	No	No	✓ Personalized report + photo package
Exclusive in-kind provider recognition (parts / services)	By agreement	By agreement	Preferred partner status

Not sure which tier fits? Many partners start with in-kind support (materials, machining, components, or services) and grow over time. Reach out and we'll find an arrangement that works for both sides.

In-kind & custom partnerships

Hardware, fabrication, and expertise are just as valuable as cash. If your company can help in any of the areas below, let's talk about a partnership package with recognition at the appropriate tier.

Mechanical & fabrication

- CNC machining, waterjet & laser cutting
- Aluminum stock, fasteners & hardware
- Arm components & structural materials

Electrical & components

- Motors, motor controllers & power electronics
- PCB fabrication & assembly
- Batteries, sensors & wiring supplies

Services & software

- Engineering consulting & design review
- Cloud / compute credits
- Travel or logistics support

Named opportunities

- Robotic arm subsystem sponsor
- Swivel drive / mobility sponsor
- Competition travel sponsor
- Open House & outreach event sponsor

CURRENT & RECENT PARTNERS

We're grateful to the organizations already backing our mission:

SolidWorks

Protspace MFG

SparkFun

University Students' Council

XP Power

Altium

READY TO PARTNER WITH WEMARS?

We'd love to hear from you. Whether you're exploring Bronze sponsorship or a custom Gold partnership, our business team will respond promptly with next steps.

Email

wemars@uwo.ca

Website

wemars.org

LinkedIn

[Western Engineering Mars Rover Team](#)

Instagram

[@we.mars](#)

Location

1151 Richmond St, London, ON N6A 3K7

Timeline

Partnerships welcome through June 2027