

2023-2024



SUNSTANG
SOLAR CAR PROJECT

SPONSORSHIP PACKAGE



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ABOUT US



Sunstang Solar Car Project is Western Engineering's largest and longest running Megaproject Team with dozens of alumni from all engineering disciplines. The project began in 1991 as a research thesis and has since evolved into a large team aspiring to introduce Western Undergraduate Engineering students into a project-based learning community and leave an impact on the engineering profession through the education of sustainable energy practices.

With the support of your company Sunstang strives to accomplish the following goals:



Place Top 5 at the 2024 American Solar Challenge and Formula Sun Grand Prix



Qualify for the 2025 World Solar Challenge

HISTORY OF SUNSTANG



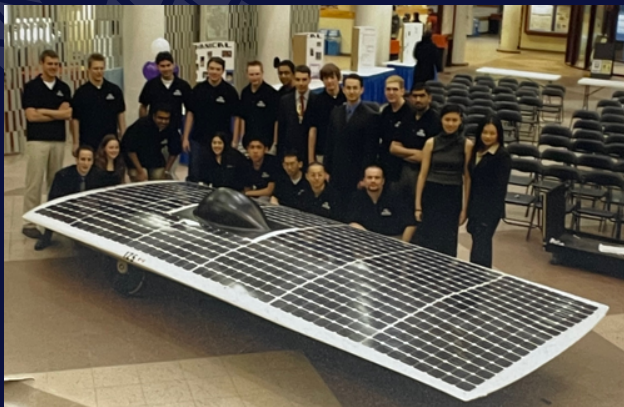
**World Solar Challenge,
Australia**

1993



Sunrayce 95, Sydney Australia

1996



**American Solar Challenge,
USA**

2003



**Formula Sun Grand Prix,
Kansas USA**

2004



2005

World Solar Challenge,
Australia



2007

World Solar Challenge,
Australia



2015

Formula Sun Grand Prix, USA



2017

Formula Sun Grand Prix, USA

THE LEGACY SOLAR CAR



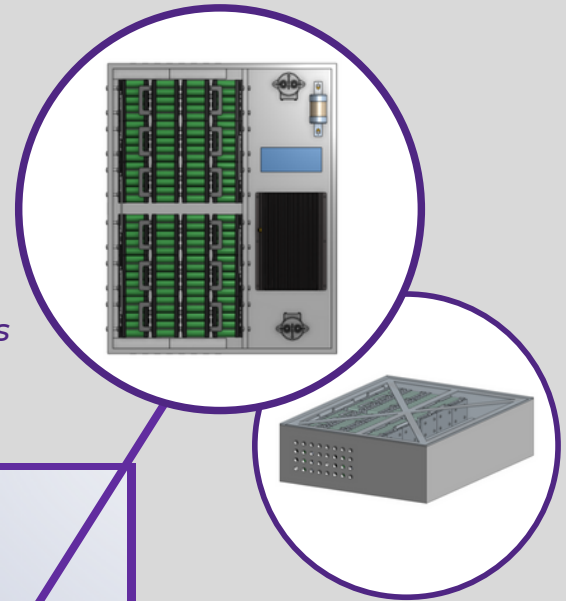
Sunstang's first multiple occupancy vehicle, built for the practicality and comfort of the future.

*Lightweight
Carbon Fiber
Composite
Aerobody*

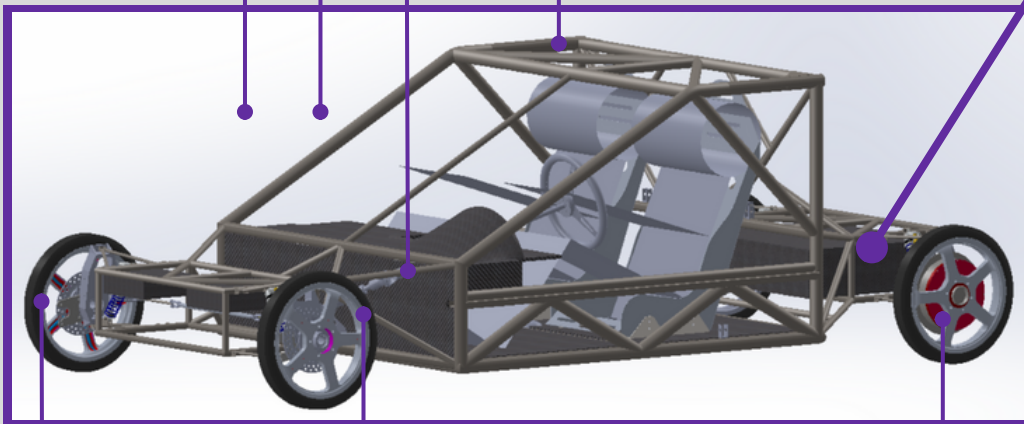
*Double Wishbone Front &
Rear Suspension*

*High Speed
CANbus System
Programmed in
House*

*4130 Chromoly Steel
Space- Frame Chassis*



*960 Lithium-ion
Cells Configured in
24S40P to Provide
86V and 134Ah*



16" Bridgestone Ecopia Tires

16" Custom 7075 Aluminum Wheels

*2x 2000W In-Wheel DC
Brushless Motors*

2023-2024 TEAM BUDGET

MECHANICAL BUILD	
Aerobody	\$ 6,550.00
Frame	\$ 1,800.00
Tires & Wheels	\$ 5,600.00
Suspension	\$ 9,600.00
Brakes	\$ 1,150.00
Steering	\$ 760.00
Other	\$ 500.00
TOTAL	\$ 25,960.00
ELECTRICAL BUILD	
MPPT	\$ 1,500.00
Other	\$ 1,650.00
TOTAL	\$ 3,150.00
COMPETITION	
Fees	\$ 11,800.00
Transportation	\$ 2,000.00
Accommodations	\$ 2,200.00
Tools	\$ 800.00
Replacement Parts	\$ 800.00
Camping Gear	\$ 1,000.00
First Aid	\$ 200.00
Cooking Supplies & Food	\$ 800.00
TOTAL	\$ 19,600.00
GRAND TOTAL	\$ 48,710.00

BUILDING THE CAR....

GETTING TO COMPETITION....

2023-2024 TIMELINE



MAY-JUNE

- COMPLETE: MPPT design, BOM for dynamics subsystems, wheels design and FEA analysis, steering design, solar panel mounting
- BEGIN: suspension design

JULY-AUGUST

- COMPLETE: wheel manufacturing, battery modules building and testing, battery box assembly, EVSE, CANBUS programming, motor controllers configuration, mechanical components procurement, High Power Box building, Vehicle Control Unit (VCU) procurement, suspension design
- BEGIN: MPPT assembly

SEPTEMBER-OCTOBER

- COMPLETE: mechanical build and assembly, powertrain integration, wiring harness, backup camera system, driver controls, VCU building and integration, driver controls testing, MPPT testing, Battery Box testing

NOVEMBER-JANUARY

- COMPLETE: final system testing, preliminary road testing, vehicle road certification application

FEBRUARY-MAY

- COMPLETE: crowdfunding, road testing (short and long range), aerobody polishing, competition preparation

JULY - COMPETITION



THE SUNSTANG ADVANTAGE

Engineering Megaproject

- Nine individual teams collaborating towards a collective goal
- Western Engineering's longest running megaproject
- 90 students - representing one of the largest Western Engineering clubs

Green Tech Development

- Innovative and practical application of solar technology
- Incorporating sustainable practices in engineering students' academic careers

Representing Canada

- 1 of 8 Canadian teams to participate in the American Solar Challenge since 2010

MEDIA COVERAGE



COMPETITIONS

AMERICAN SOLAR CHALLENGE

A multi-day, 2,000 km cross-country endurance rally across the United States. The event is held every other year in July and is open to collegiate level solar car teams from all over the world.

WORLD SOLAR CHALLENGE

A week-long rally in Australia traversing 3,000 km from Darwin to Adelaide. These teams comprise of tertiary and secondary students from over 30 countries who compete to push the limits of technological innovation.

WOMEN IN STEM



Sunstang launched an outreach event for young girls to fuel their excitement for STEM by building small racecars. Sunstang was happy to have made such an impact.

“Sunstang’s volunteers were wonderful role models who showed our members the diversity of students who are in engineering. The fact that we had a hard time getting the girls to leave after the event had officially ended is a testament to how much our members learned and how much they enjoyed the event.

- Dr. Evelyn Vingilis, Canadian Association for Girls in Science



HOW CAN YOU HELP?

Sponsoring components of the car or competition expenses allows us to become a more competitive team. We plan on becoming a flagship team at both the American and World Solar Challenge, setting an example for innovative solar technology. Join Sunstang as we move to the next level amongst solar car teams.



SPONSOR TIERS

TIER	DIAMOND	PLATINUM	GOLD	SILVER	DONOR
DONATION	\$10000+	\$9999-5000	\$4999-3000	\$2999-1000	< \$1000
LOGO ON WEBSITE					
RECEIVE MONTHLY NEWSLETTER					
INVITE TO CAR UNVEILING					
RECEIVE TEAM RESUME PACKAGE					
FACEBOOK + INSTAGRAM POST					
LOGO ON SOLAR CAR					
LOGO ON UNIFORM					
NEWSLETTER + LINKEDIN FEATURE					
SIZING OF LOGO ON SOLAR CAR					
EXTRA LARGE [12x12 INCHES]					
LARGE [9X9 INCHES]					
MEDIUM [6X6 INCHES]					
SMALL [3X3 INCHES]					
EXTRA SMALL [1.5X1.5 INCHES]					
SIZING OF LOGO ON UNIFORM					
EXTRA LARGE [8X8 INCHES]					
LARGE [6X6 INCHES]					
MEDIUM [4X4 INCHES]					
SMALL [3X3 INCHES]					

THANK YOU!

CONTACT US



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JOIN OUR TEAM

If you would like to help fund this project or require any additional information please contact us at external@sunstang.com

A special thank you to all of our sponsors for their continued support and mentorship throughout this project.



CALGARY
FOUNDATION
FOR COMMUNITY, FOREVER



PROHELION



AIRTECH
ADVANCED MATERIALS GROUP



IEEE brose



JMP Solutions



muRata

INNOVATOR IN ELECTRONICS



freud • Autotube

MITSUBA

ALTAIR Ansys

REXCO®
CLEANING • LUBRICATING • PROTECTING

Special Parts Supplier
NOMURA CO.
野村商会