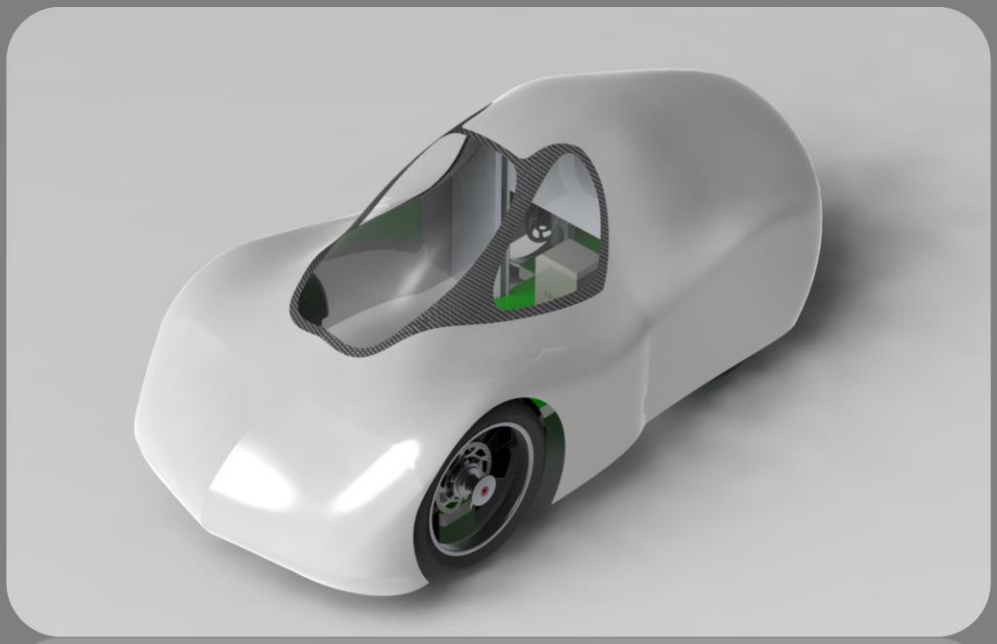
2013

UBC Supermileage Team

Sponsorship Package 2013



UBC Supermileage
sponsor@supermileage.ca
7/14/2013

OUR TEAM

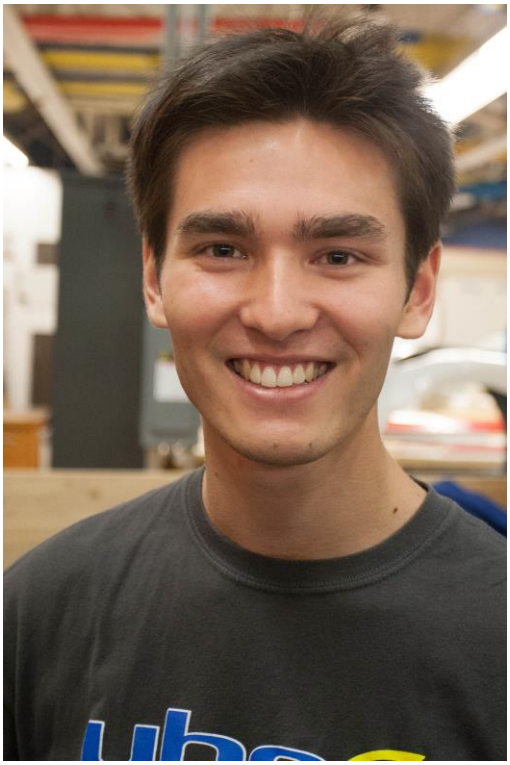
The UBC Supermileage Team is a group of 65 dedicated engineering students working to design and build a fuel efficient, gas-powered vehicle. Our diverse team includes students from each of the following disciplines:

- Mechanical Engineering
- Materials Engineering
- Civil Engineering
- Geological Engineering
- Engineering Physics

UBC Supermileage is passionate about sustainable engineering design. We have a proven track record of success and are looking to build industry support and improve on our previous competition performance.

Contact: sponsor@supermileage.ca

A MESSAGE FROM OUR CAPTAIN



Hello and thank you for your interest in the UBC Supermileage Team! I am a Mechanical Engineering student in my final year at UBC and I've been a member of the team for the past 2 and a half years. In that time, I've watched it grow from a small team of 13 to the massive behemoth of over 70 members that it is today. There's a reason we're so popular with student engineers! Sustainability is clearly becoming an important issue and students want to be involved in the solution. Add the Supermileage Team's impressive track record as one of the most successful student teams at UBC and our reputation for student learning and it's no wonder students are clamoring to join. As Captain I want to maintain our reputation as one of the top teams in competition, but I'm also intent on providing individual development opportunities in areas such as technical design and project management. My goals this year include attending as many public events as possible, bringing the maximum number of members to competition, and streamlining our workspace environment to better suit the simultaneous construction of two vehicles. However, such ambitions bring a heavy financial strain on the team. We welcome any contributions and are greatly appreciative of our sponsors.

RYAN GIBSON

CAPTAIN, UBC SUPERMILEAGE TEAM

Leadership Profiles

Nick de Beaupre

Aero Dynamics Co-Lead

Nick is a fourth year mechanical engineering student specializing in the thermofluids option. He has always loved working on project optimization which led him to join Supermileage. He has valuable carbon fiber construction experience and enjoys sharing his skills with the new team members.

Alex Tang

Aero Dynamics Co-Lead

Alex is a third year Mechanical Engineering student. He joined the UBC Supermileage Team to gain practical hands-on experience and to further develop his engineering design skills. He also enjoys learning about carbon fiber and aerodynamics; two reasons why Supermileage was a great fit for him.

Katelyn Currie

Chassis Lead

Katelyn is a third year Mechanical Engineering student and leader of the Chassis team. She joined Supermileage to gain project management experience in the design of innovative solutions for sustainable energy. She intends to follow a career path involving automated systems combined with the alternative energy sector.

Neil Lanfranchi

Engine Co-Lead

Neil is in his third year of Mechanical Engineering. Outside of the classroom he enjoys biking, rugby, piano and working on cars. He joined UBC Supermileage because he saw it as the perfect opportunity for learning about innovative vehicle design and construction.

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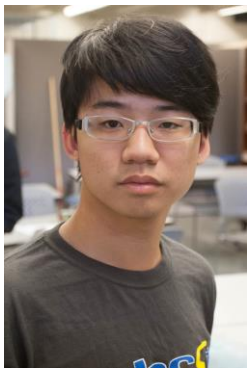
KEVAN COTE

Engine Co-Lead

Kevan is a third year Mechanical Engineering student with an interest in the automotive industry. He joined UBC Supermileage to build on his knowledge of engines and gain real world experience working with innovative technologies.



JEFFREY CHAN

Electrical Lead

Jeffrey is in his third year of electrical engineering, specializing in the nanotechnology and microsystems option. His interest in high performance electronics and the automotive industry lead him to join Supermileage for competitive and practical exposure.

NANCY PENG

Admin Lead, Driver

Nancy is a fourth year mechanical engineering student who has warm passion for designing and building. She enjoys being a part of the student community and has been actively involved in the Aerodynamics and Administrative division activities on Supermileage the last 2 years.

NANCY CHU

Driver

Nancy is a third year Mechanical Engineering student with childhood driven dreams of one day becoming an Imagineer. Her experience with the Supermileage team and the 2013 Shell Eco-marathon competition has been the most rewarding experience in her university career thus far.

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THE COMPETITION, OUR RESULTS

The annual Shell Eco-Marathon Americas (SEMA) competition is the focus of the UBC Supermileage Team. The competition challenges teams from across North and South America to design, construct and test cutting-edge fuel-efficient vehicles. SEMA consists of two divisions: **Prototype** and **UrbanConcept**. The Prototype class encourages students to create a futuristic vehicle that maximizes fuel mileage with minimal design constraints. On the other hand, Urban Concept vehicles more closely resemble real-life automobiles in appearance and functionality.

Prototype Car - "Mark Series"		
Date	Place	Mileage
2013	Fifth Place	0.170L/100km (1383 mpg)
2008	Fourth Place	0.126L/100km (1865 mpg)
2006	First Place	0.075L/100km (3145 mpg)
2005	First Place	0.147L/100km (1608 mpg)
2004	First Place	0.135L/100km (1747 mpg)
2003	First Place	0.254L/100km (927 mpg)
2002	Fourth Place	0.263L/100km (895 mpg)
2001	Ninth Place	0.797L/100km (295 mpg)

Starting in 2001, the UBC Supermileage team competed in the Prototype division, entering a series of vehicles named “Mark I” to “Mark VII”. From 2003 to 2006 the UBC Supermileage Team dominated the podium in the Prototype competition. Due to the switch to the more practically relevant Urban Concept class, development of the Mark series was halted until 2013. Freshly revived, the Mark VIII triumphantly returned to finish 5th out of 56 competitors.

Urban Concept Class		
Date	Place	Mileage
2013	Second Place	0.408 L/100km (577 mpg)
2012	Third Place	0.817 L/100km (288 mpg)
2011	Fourth Place	1.099 L/100km (214 mpg)
2010	DQ	1.438 L/100km (163.5 mpg)

In 2010, the UBC team made its first entrance to the Urban Concept class with the “Argo”. Even though the team didn’t complete a successful run, they achieved an impressive 163.5 mpg. Since then, each iteration has improved over its predecessor. Last year’s “Odysseus” model doubled the mileage from the year before with an astounding 577 mpg.

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Our Goals

1. Win the Urban Concept class, Break 2000mpg in Prototype

The UBC Supermileage Team revived its long dormant Prototype vehicle last year to great success, taking 5th place at competition in April. With the knowledge gained from this re-introductory year, we expect to exceed 2000mpg with our latest Mark-series vehicle. Our newest entry into the Urban Concept category, the Odysseus, achieved our long-standing goal of breaking 500mpg and secured 2nd place at competition. We plan to take the lessons learned from last year's podium finish and apply them towards this year, where we've set the ambitious goal of taking first place. Planned upgrades include completely overhauling our chassis and wheel mounts, as well as further refining our engine.

2. Raise Awareness

Sustainability is an increasingly pressing issue in today's society. The UBC Supermileage team wants to contribute by raising awareness about energy conservation. We attend several campus and community events talking about both the team's success and environmental issues.

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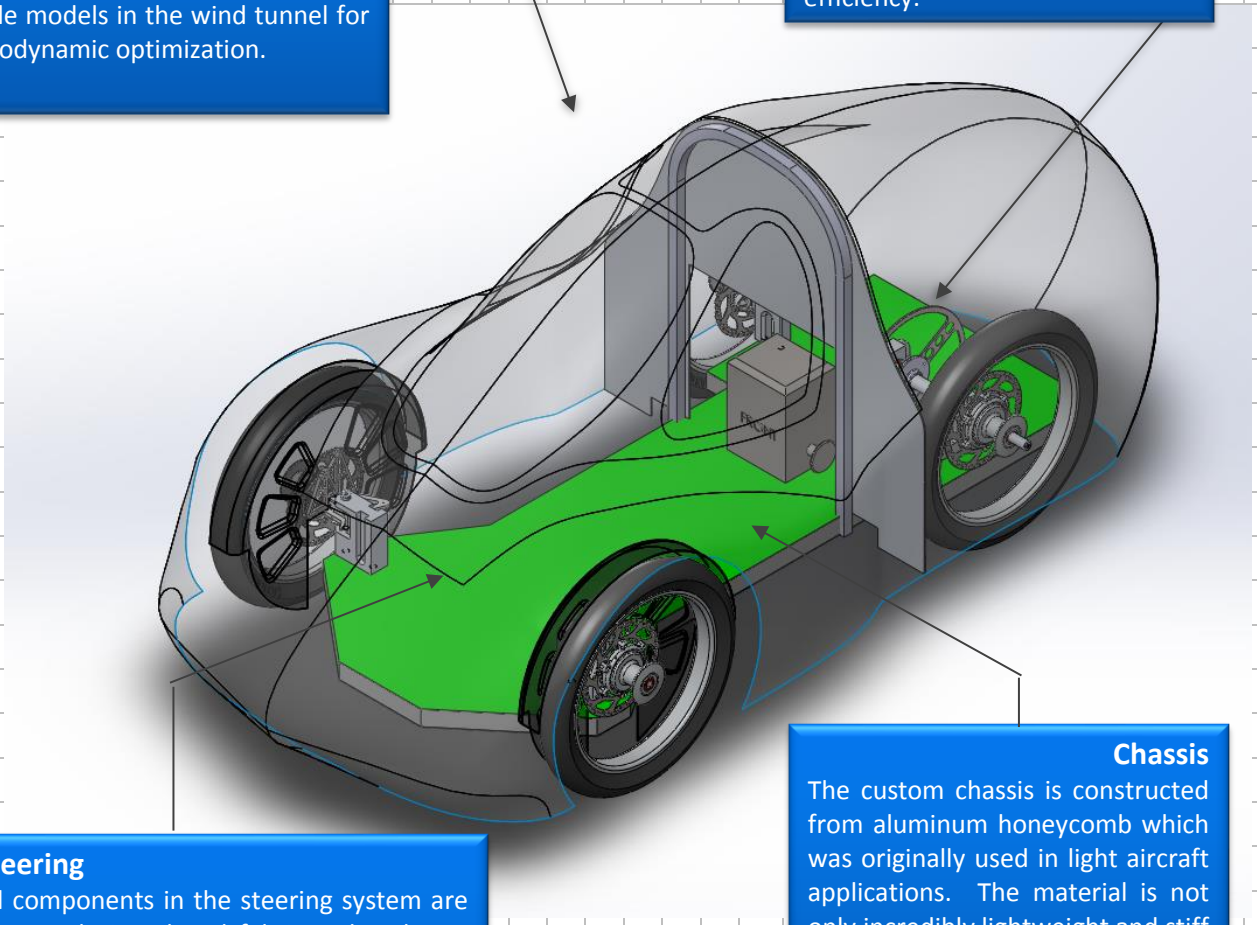
ODYSSEUS

Body
Made of carbon fiber, the body is designed with CAD, and tested extensively using CFD software and scale models in the wind tunnel for aerodynamic optimization.

Engine
The car uses a 50cc Honda GXH50 motor that, if left stock, has 2.1 hp. The stock carburetor has been replaced with a custom fuel injection system to allow for engine tuning and increased fuel efficiency.



Chassis
The custom chassis is constructed from aluminum honeycomb which was originally used in light aircraft applications. The material is not only incredibly lightweight and stiff but is also easily modified. We're currently researching even lighter structures made of composites for our chassis

Steering
All components in the steering system are custom designed and fabricated to be as lightweight as possible. On the rare occasions when the brakes are applied we use hydraulic brake calipers from mountain bikes with custom made rotors to fit our custom spoked wheels

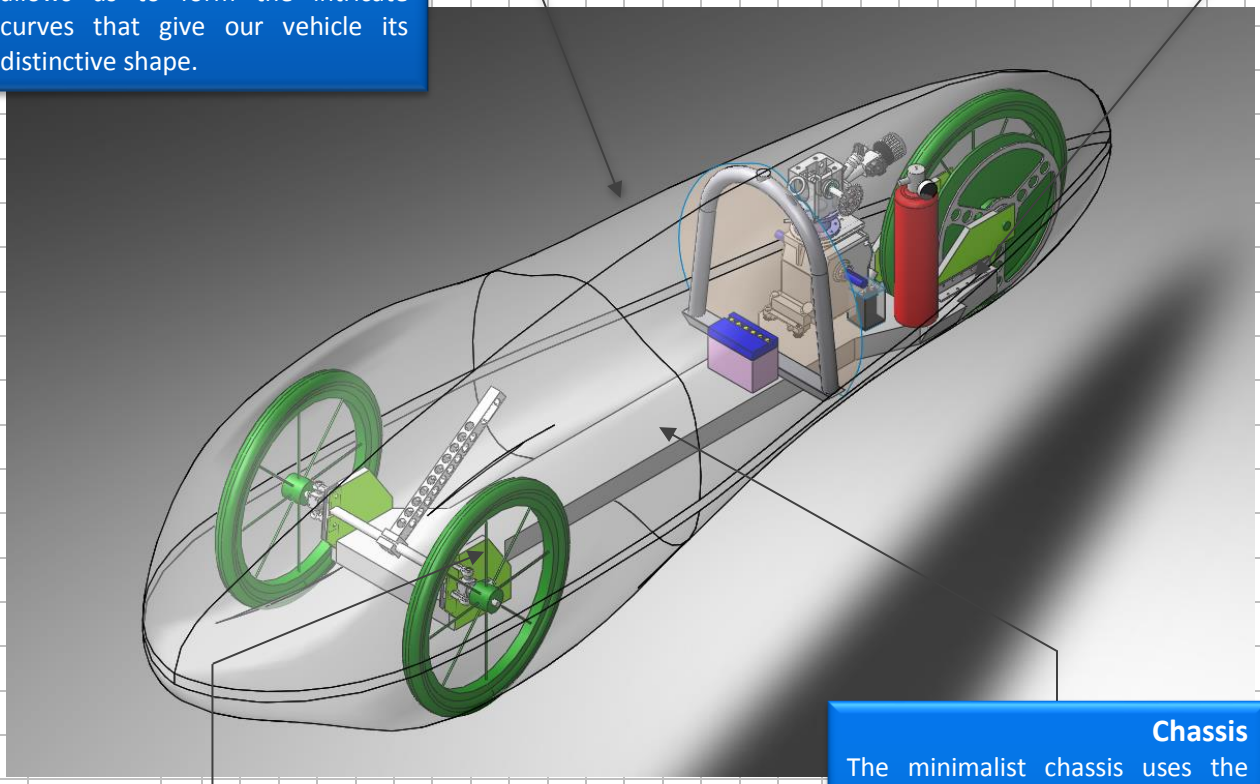
Author	UBC Supermileage	Page 1 of 1	
Title	Odysseus Visual	REV	1.0
Filename	Sponsorship Package	DATE	10/6/2013

Contact: sponsor@supermileage.ca

MARK VIII

Body
Carbon fiber is used for the construction of the Mark VIII shell. Not only ultra light, this material allows us to form the intricate curves that give our vehicle its distinctive shape.

Engine
The same model of 50cc Honda engine is used in the Mark VIII as in the Odysseus. A custom engine tune is created to take advantage of the vehicle's lower weight and superior aerodynamics.



Steering
Waterjet aluminum and plastic components keep the steering system extremely light weight and precise. Simple mechanical disc brakes normally installed on bicycles are used with steel rotors on wheels spoked to wheelchair hubs.

Chassis
The minimalist chassis uses the same aluminum honeycomb commonly seen in aircraft structures. It is an extremely versatile material with high stiffness, allowing for the chassis footprint to be very small.

Author	UBC Supermileage	Page 1 of 1	
Title	Mark VIII Visual	REV	1.0
Filename	Sponsorship Package	DATE	10/6/2013

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WHY GET INVOLVED?

We are hoping to develop relationships with industry organizations interested in offering their support in return for a share in our future success. Partnering with the UBC Supermileage Team provides several benefits:

MEDIA COVERAGE

"…you don't really need funky alternative fuels or an electric motor to trim your energy consumption on the road. Sometimes all it takes is a little ingenuity."

- Time Magazine's Greatest Inventions of 2006

"What do you get when you challenge a bunch of engineering student to build a green car. At the University of British Columbia you get … [a] three wheeler that can travel 3145 miles on a single gallon of gas."

-Daily Planet

"…a group of University of B.C. engineering students has designed a vehicle that will run from Vancouver to Halifax on $5 worth of gas and fumes."

- The Vancouver Sun

For more information and links to our media coverage visit our website at supermileage.ca.

RECRUITMENT

The UBC Supermileage team consists of engineers who demonstrate a passion for engineering design by taking initiative outside the classroom. Sponsorsing and meeting the team is a good opportunity to recruit up and coming engineers who have already demonstrated commitment, professionalism, and willingness to learn.

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PARTNERSHIPS WE OFFER

Category	Annual Amount	Description
Primary	$5000 or more	Primary partner for a year. Primary partners will have a large logo positioned in a dominant position on both cars. Also, the logo of your business will be included prominently on our web page, banner and other promotional material with a primary distinction.
Gold	$1500 - $4999	Gold partner for a year. Gold partners will have a medium-sized logo with preferential placement on both cars. The logo of your business will also be included on our web page, banner, and other promotional material with a gold distinction.
Silver	$500 – $1499	Silver partner for a year. Silver partners will have a logo on both cars, our web page, banner and other promotional material.
Bronze	Less than $500	Bronze partner for a year. The logo of your business will be included on our web page, banner and other promotional material. Pending space availability, your company's logo will be included on one or both cars.
In-kind	Non-monetary donations	We are also open to in-kind (non-monetary) sponsorships that will be discussed on an individual basis.

PARTNERS (2012-2013)

PRIMARY

GOLD

SILVER

BRONZE

IN-KIND

contact: sponsor@supermileage.ca