FROM OUR TEAM CAPTAIN

Dear Friends,

I am delighted you have come across our team! On behalf of MIT Motorsports, I hope you will consider supporting us for the 2021-2022 model year.

MIT Motorsports is a team of more than fifty undergraduate and graduate engineers that design, build, and race a Formula-One style electric vehicle at the international Formula SAE competition in Brooklyn, Michigan. In past years, we have ranked in the top three teams at competitions around the nation. Although the 2020 pandemic might have set us back, it has inspired us to implement numerous improvements within the team’s structure and performance. This year, we are aiming to go further and faster than ever before.

Currently, we are aspiring to tackle one of our most important goals for the duration we have competed as an EV team. We are looking to take the next leap of progress: fully designing and racing a four-wheel-drive vehicle. Every major step that we have made over the years would not have been possible without the generous aid of our supporters, whether that be MIT, alumni, or corporate and private sponsors.

By sponsoring our team, you will help us grow as individuals and engineers. As we establish a partnership with you, it will enable us to connect with potential employers, mentors, and friends. If you have any questions, please do not hesitate to reach out!

We look forward to working with you!

Not Because it is Easy, But Because it is Fast,

Valeriia Tyshchenko
MIT Motorsports Team Captain | fsae.mit.edu
Mechanical Engineering | Class of 2023
ABOUT MIT

HISTORY

MIT was founded on April 10th, 1861 as an incorporation of "Massachusetts Institute of Technology and Boston Society of Natural History" led primarily by William Barton Rogers. The story of MIT begins with a heartfelt belief that the American educational system of the 19th century was fundamentally broken. Instead of treating a scientific education and a practical education as fundamentally incompatible, its founders envisioned a new education to unify mens et manus, mind and hand, theory and practice, into a coherent program of study within a single institution.

RANKING

In 2021, MIT tops U.S. News & World Report newly released list of the best engineering schools in the country, marking the 33rd consecutive year the school has taken top honors.¹

#1 in BEST UNDERGRADUATE ENGINEERING PROGRAM

#1 in MECHANICAL ENGINEERING

#1 in ELECTRICAL ENGINEERING

#1 in COMPUTER SCIENCE

#1 in AEROSPACE ENGINEERING

#1 in MATERIAL SCIENCE

#1 in CHEMICAL ENGINEERING

MIT Motorsports is a dedicated group of students that strives to engineer a Formula SAE car of the highest caliber. Made up of more than 70 undergraduate and graduate students of several different academic majors, the team annually builds an electric racecar for the Formula SAE Electric competition held in the US.

Every year we design, manufacture, and race our newest racecar concept. At the Formula SAE competition, vehicle design experts from industry evaluate the team’s engineering quality, manufacturing cost, and fictional business plan. After a rigorous vehicle safety inspection, we are able to race against other university teams on various tracks, including a figure-eight skidpad and a 22 km endurance course.
THE EVOLUTION OF MIT MOTORSPORTS

FOUNDING

2001
MIT Motorsports first entered the Formula SAE competition when two freshmen founded the team in 2001. Since its 97th place finish on the first trip to the race track in 2003, MIT Motorsports has been a nonstop adventure, giving generations of students unparalleled engineering experience in the process.

STRATEGY SHIFT

2012
The two year cycle from 2012-2013 was the end of an era and start of a new one: the last time that MIT Motorsports used a combustion engine. With top 5 fuel economy and cost finishes, the team left gas in style.

TRANSITION TO ELECTRIC VEHICLE

2015
MY15 was the team’s first completed running electric vehicle (EV). A working car meant the team could test the powertrain and acquire data. It also had the first aerodynamics package in team history.

RECORD SUCCESS

2017
MY17’s second place finish at the EV competition showcased how far the team had come. The custom batteries, aero packages that increased downforce by 300%, new wheel package designs, and other improvements helped push the team to a new level.

BEST OF CLASS

2018
MY18 tuned and refined MY17’s advances, building the team’s most reliable car yet. More than 20 full vehicle track tests prepared us well: MY18 took the competition by storm, finishing with the fastest time in 4/5 of the competition’s dynamic events.
TEAM CAPTAIN

VALERIIA TYSHCHENKO

Valeriia manages the executive board and is responsible for all high-level integration, design, and implementation decisions.

PROJECT TEAM LEADS

NICOLE SEMAN
Mechanical Lead
Nicole manages the design and manufacturing of all mechanical components of the car.

SAM COSTA
Aerodynamics Lead
Sam directs the design and manufacturing of all aerodynamic components of the car.

SARAH COSTON
Electrical Engineering Lead
Sarah manages the design and implementation of the electrical system.

BOWEN WU
Software Lead
Bowen coordinates the design, testing, and integration of all software for the vehicle.
**Our Process**

**Designing**
We use team goals to define our system-level requirements. Components are designed with a focus on simplicity, efficiency, and full-vehicle understanding.

**Design Reviews**
Throughout the design process, structured design reviews offer a formal opportunity for input on a current design from other team members and team alumni. These reviews help keep vehicle design on track and double as an opportunity for newer members to learn about the vehicle.

**Manufacturing**
We build our car in-house from the ground up. Team members machine precision components in MIT’s Edgerton Center facilities, enabling them to experience the relationship between innovation & practicality first-hand.

**Testing**
We aim to spend just as much time on testing as we do on design. In order to build a robust and reliable electric vehicle, we go on weekly testing trips throughout the year, honing in our vehicle’s performance and training our drivers.

**Fundraising**
MIT Motorsports encourages all members to research and reach out to potential sponsors, giving them valuable chances to practice their “soft skills.” Additionally, building relationships with corporate sponsors and alumni alike helps members make contacts outside of their immediate academic sphere.
LOOKING FORWARD

MY 2021
PAST

Out of 20 registered teams, we were only one of six who passed the battery inspection test. Eight other groups either withdrew or forfeited from the competition. Although COVID significantly impacted the FSAE community this year, MIT Motorsports displayed promising results and ultimately placed among the strongest competitive teams in the nation.

MY 2022
FUTURE

Our objective is to build a healthy, confident, and experienced engineering community that is prepared to take on greater risks for the future. We will focus on applying rewarding technical challenges (building a 4WD), enforcing efficient engineering practices, restructuring design reviews, improving cross-subteam literacy, and bonding to grow an ever stronger community.
WHY SUPPORT US?

01 Advertising Opportunities: Your logos will appear on our website, apparels, and racing car.

02 Opportunity to recruit experienced and skillful students from our team.

03 Access to our break-through research ideas.

04 Plant the seed for the younger generations to grow and develop.

OUR MISSION

By emphasizing rigorous engineering, technical expertise, and effective management, MIT Motorsports empowers students to become engineering leaders.

OUR GOAL

Bringing together talented MIT students across a variety of engineering backgrounds and giving them the skills, tools, and capital to do their best work.

2021-2022 BUDGET PROJECTION

$161,000 is needed to fund the 2021-2022 project.
COST BREAKDOWN

- Misc (A-Arms, Steering, Arbs & Rockers, Pedalbox, Cooling, Cockpit...)
  - Misc (truck rental, driver gears, maintenance)
- Frame $5,000
- Wheel Packages $7,000
- Battery $20,000
- Motors/Powertrain $22,000
- Aero $15,000
- Competition $18,000
- Misc (events, dyno, RnD) $8,000
- Shipping $5,000
- Buffer $5,000
- Trailer $5,000
- Shop $5,000

EXPENDITURE TIMELINE

Accumulated Cost ($USD)

Oct Nov Dec Jan Feb Mar Apr May Jun
WE NEED YOUR SUPPORT

While the Institute provides us with the laboratory space at the Edgerton center to build our race car, we rely on fundraising from corporate sponsors and individual donors to fund all of our activities. We welcome both cash and in-kind materials or equipments donation. The fair market value of donated materials and equipments will be used to determine the level of support.

Interested in Sponsoring Motorsports? Please see sponsorship benefits below and reach out to us at fsae@mit.edu. Interested in tax-deductible donation to Motorsports? Easily make a donation online at here. Please note, that donations are not eligible for sponsorship benefits, in compliance with federal guidelines.

SPONSOR TIERS

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<th>OUR COMMITMENT TO YOU</th>
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<th>BRONZE $2,000+</th>
<th>SILVER $5,000+</th>
<th>GOLD $10,000+</th>
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DIAMOND SPONSOR - $60,000+

Diamond sponsor will have inputs on our liveries and apparel designs, a prominent branding on our MY2021 racing car, access to our team resume books, a website profile on our website, branded banners, and many more exciting benefits.
OUR 2020-2021 SPONSORS

PLATINUM

EDGERTON CENTER

Ralph & Laurie Inglese

GOLD

GM

MIT MECHE

MIT EECS

Milwaukee

KISSsoft

Drivetrain Design Solutions

Alan & Joan Henricks

SILVER

VI-GRADE

Karen O'Neil

Yan Zeng

Nikhil Gidwani

Eric & Kristie D'Ambrosio-Correll

BRONZE

BLUE ORIGIN

LOCKHEED MARTIN

AFFILIATE

kx

AMERICAN MUSCLE

VECTOR

carparts.com

Richard James

Anthony Patera

Cameron Ordone