



University of Michigan Electric Boat

2021-2022 Sponsorship Packet



WHAT WE ARE



The University of Michigan Electric Boat (UM-EB) team is a student-led project team founded in 2019 that designs, builds, and races an electric boat to compete in the Promoting Electronic Propulsion (PEP) competition hosted by the American Society of Naval Engineers.

Our members come from all walks of life, but we all share one important commonality: We strive to challenge ourselves to implement sustainable technologies to educate the next generation of engineers.



UM-EB VALUES



Sustainability

We are committed to sustainability. We keep offset our energy usage, and we plan to charge our vessel with solar energy in the coming years.



Innovation

No idea is a bad idea. Our project gives members the opportunity to apply their theoretical skills to a real-world project with room to experiment.



Adaptability

We're no strangers to setbacks; we were founded during the COVID-19 pandemic. Our adaptability allows us to strive for greatness no matter the circumstances.



Collaboration

Diversity is vital to our team, and we recognize the value that it brings. Our members thrive in the pursuit of over 10 different majors across an array of different departments.

OUR COMPETITION

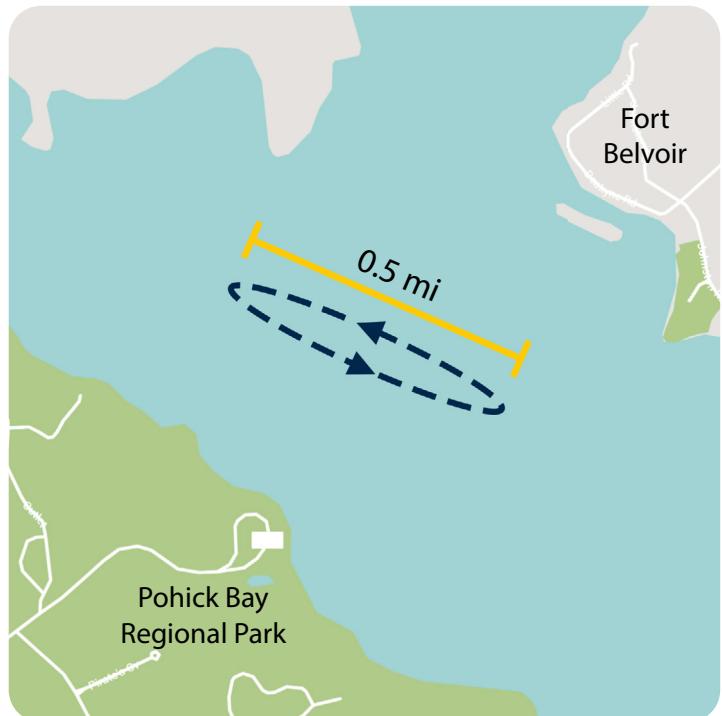


PROMOTING ELECTRIC PROPULSION (PEP) FOR SMALL CRAFT



In May of 2022, UM-EB will compete in a 5-mile race with our electric boat in Occoquan, Virginia. This competition gives us an opportunity to work with design software, a variety of tools, and collaborate to create an innovative final product.

UM-EB and our competitors are tasked with completing 5 laps in a short out and back circuit in a protected bay off of the Potomac River. Cash prizes will be awarded to the top three finishers and teams displaying innovative engineering.



2021 Competition - Racing with University of Kentucky



ACHIEVEMENTS



2nd Place Finish at 2021 PEP Competition



12 MPH

sustained over

4 MILES

In July of 2021, UM-EB competed in the PEP competition under the name of Michigan Solar Sea. Our team finished second, winning a \$2000 cash prize.

We plan to greatly improve our speeds for the 2022 event to hold onto our podium position as the competition heats up. Your support will help us achieve this goal!



OUR SUBTEAMS



MECHANICAL SUBTEAM

Designs hull and hydrofoil structures alongside electrical system integration

- Hydrofoils - Designs and manufactures hydrofoils to reduce drag and maximize lift
- Structures - Develops mounting mechanisms for hydrofoils and battery system
- Drivetrain - Researches and integrates propulsion drive components
- Hull - Models hull and propulsion body shell while incorporating hydrofoils

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ELECTRICAL SUBTEAM

Researches and builds our motor and safety systems with key software controls

- Sensors - Researches sensor and control hardware for assisted flight control
- Controls - Integrates control surfaces and propulsion motors with controller systems
- Power - Implements battery systems to supply power to motors and other systems

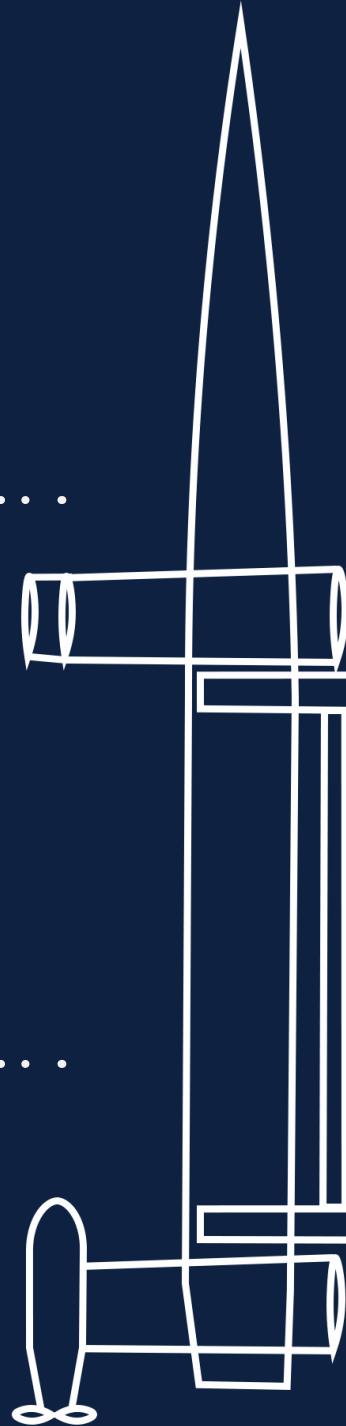
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BUSINESS SUBTEAM

Manages project team finances and facilitates public relations through social media marketing and website development

- Social Media - Manages various social media accounts: Twitter, Facebook, Instagram, YouTube, LinkedIn
- Graphic Design - Designs logos, outreach materials, videos, and captures photos
- Finance - Tracks team spending and forecasts the UMEB budget



Top View
Left Hull

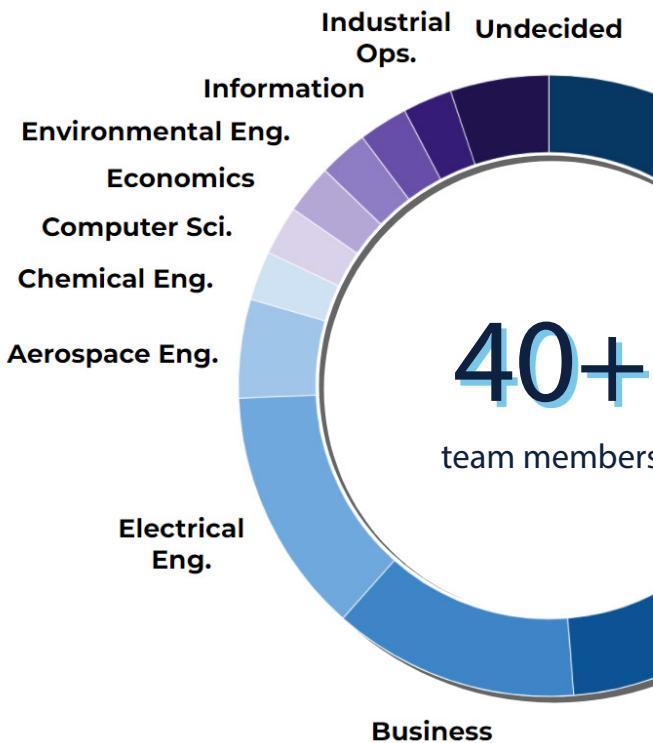
WHO WE ARE



DEI INITIATIVE

Diversity is paramount to UM-EB's success. We are building the next generation of leaders in the field of engineering. Everyone is welcome on our team. Regardless of a student's background, or area of expertise, there is a place for them at UM-EB.

TEAM DEMOGRAPHICS



38%

pursuing a minor

68%

pursuing graduate study

5

different schools

2021 RACE CREW



OFFICERS



Deven Parmar
Captain
devenp@umich.edu
Aerospace Engineering



Sean Hickey
Chief Engineer
hicsea@umich.edu
Naval Arch. & Marine Engineering



Jimmy Chen
Electrical Director
chenjim@umich.edu
Electrical/Mechanical Engineering



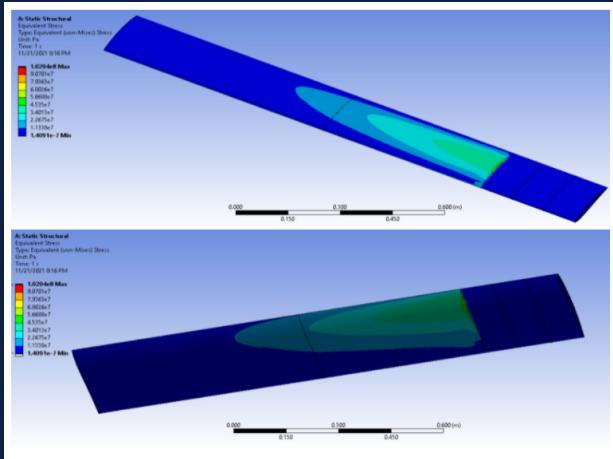
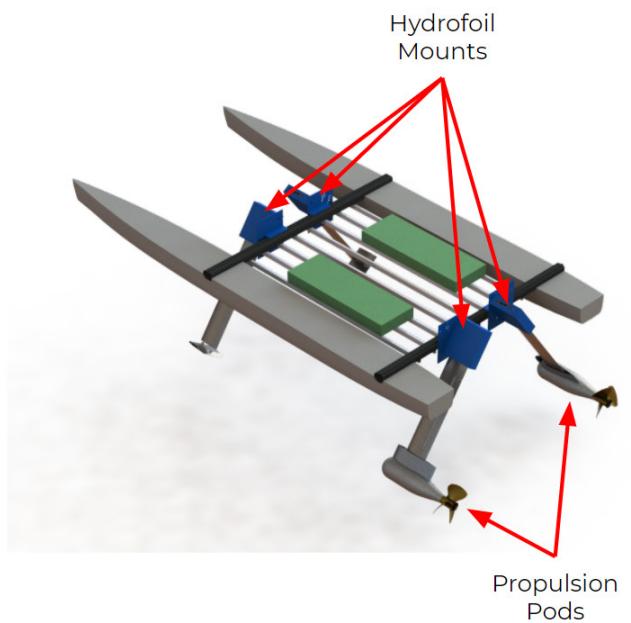
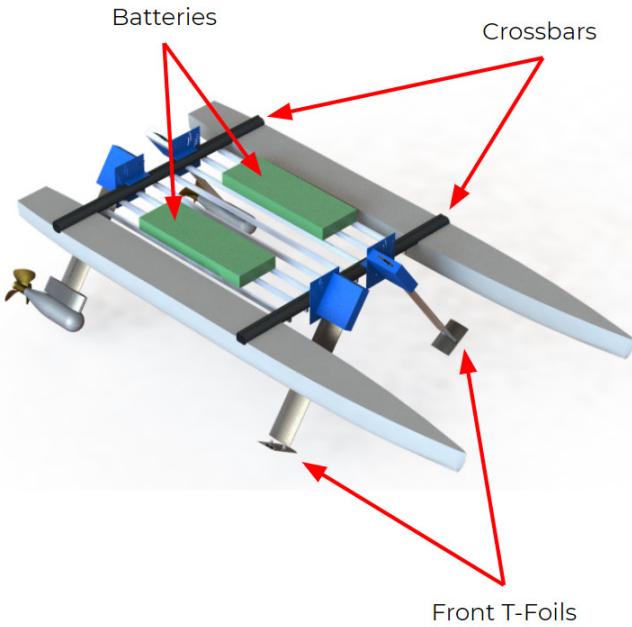
Ethan Almquist
Mechanical Director
etquist@umich.edu
Naval Arch. & Marine Engineering



Mitchell Davidson
Business Director
mitdavid@umich.edu
Business Administration



2022 VISION

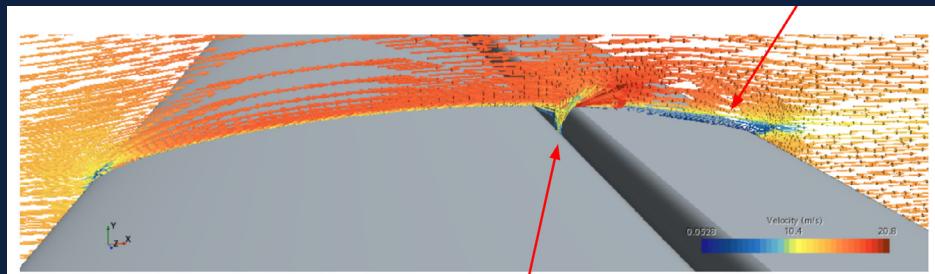


FEA

- Build twin-motor propulsion system to increase speed and maneuverability of the boat
- Implement improved vehicle controls for propulsion, hydrofoils, and steering
- Recruit new members and expand the Electrical subteam

PRETTY SIMULATIONS

- Implement our DEI initiative and maintain a welcoming atmosphere
- Recruit new members and train UM-EB's future talent
- Introduce new risk management and mitigation strategies
- Implement a new leadership structure with flexible project



HOW TO HELP



PROJECT FUNDING

Monetary donations will be used to fund boat research and development, essential tools, parts, programs, and travel to the PEP competition in Occoquan,

MATERIAL DONATIONS

We are happy to discuss how you can support the team with in-kind donations. Any contributions will be extraordinarily helpful in achieving our goals.

SPONSOR US

Email:
electricboat@umich.edu
 to start the sponsorship process

BENEFITS

Sunlight Zone (\$5000+)

- Company logo on boat and T-shirt
 - » 1st tier position
- Co-hosted recruiting event on campus
- Company logo in promotional videos
- Invitation to testing events
- All Twilight Zone benefits
- All Midnight Zone benefits

Twilight Zone (\$2500-\$4999)

- Company logo on website
 - » Includes description and hyperlink
- Company logo on boat and T-shirt
 - » 2nd tier position
- All Midnight Zone benefits

Midnight Zone (\$1000-\$2499)

- Company logo on website
 - » Includes hyperlink
- Access to team resume book
- All Hadal Zone benefits

Hadal Zone (\$100-\$999)

- Company logo on website
- Social media promotion
- Tax benefits

OUR SPONSORS



SIEMENS

ILMOR



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NAVAL ARCHITECTURE
& MARINE ENGINEERING
UNIVERSITY OF MICHIGAN



MICHIGAN
ENGINEERING
UNIVERSITY OF MICHIGAN

cādence®

Ansys



PUREWATERCRAFT

FORMULA
A logo for Formula featuring the word "FORMULA" in bold black capital letters above a stylized black eagle with its wings spread wide.

PALM Industries

OUR SPONSORS



DHXmachines



TEKTON

AXIOMATIC
Global Electronic Solutions





University of Michigan Electric Boat

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Thank you for considering donating to UM-EB. Without generous sponsors, such as yourself, we would not be able to expand our knowledge through our innovative projects.

Our team would be more than happy to meet with you to answer any questions you may have, meet some of our members, or learn about our current projects! We would love to hear your thoughts!

Again, thank you for your time.

Deven Parmar
Captain