

*Introduction to*

# CAMBRIDGE UNIVERSITY RIVIERA RACING

*Powered by hydrogen, driven by innovation*



CAMBRIDGE UNIVERSITY  
RIVIERA RACING



UNIVERSITY OF  
CAMBRIDGE

# INTRODUCING RIVIERA RACING



**Cambridge University Riviera Racing** is a new student team driving towards a sustainable maritime future by building a **zero emissions boat** for **Monaco Energy Boat Challenge 2024**. Our first project will be a **catamaran-hulled racer**, powered by a **hydrogen fuel cell** to compete in a range of challenges, stretching the limits of **endurance**, **speed**, and **manoeuvrability**.

We are a team of versatile students at the **University of Cambridge** from a wide variety of backgrounds, each bringing a **unique set of strengths** to the table. We are incredibly excited to work together over the next year to design and build **the most competitive boat** possible.



## OUR VISION

At Riviera Racing we believe that **hydrogen** will be a fundamental part of the journey towards a **more sustainable maritime future**. Through our project we aim to demonstrate the **viability of hydrogen fuel** in this space. With shipping being the **backbone of international trade**, it is crucial that we innovate and develop alternative fuel sources for the industry.



## OUR MISSION

Our aim is to serve as a hub for inventive students at **Cambridge University** to develop their skills with a real-world engineering challenge in an environment which encourages **creativity, experimentation, and excellence**. We also strive to support innovation in the maritime industry through **collaboration with leading industry partners**.



# ABOUT THE CHALLENGE

## THE COMPETITION

The **Monaco Energy Boat Challenge**, organised by **Yacht Club de Monaco**, is an international competition between pioneers in yachting, requiring competitors to test their **zero-emissions creations** in a series of races and challenges. The 2022 edition of the competition attracted **35 teams** including **27+ universities** across **20+ nationalities** along with **the world's press** to the races, tech talks and industry pitches taking place over the week.



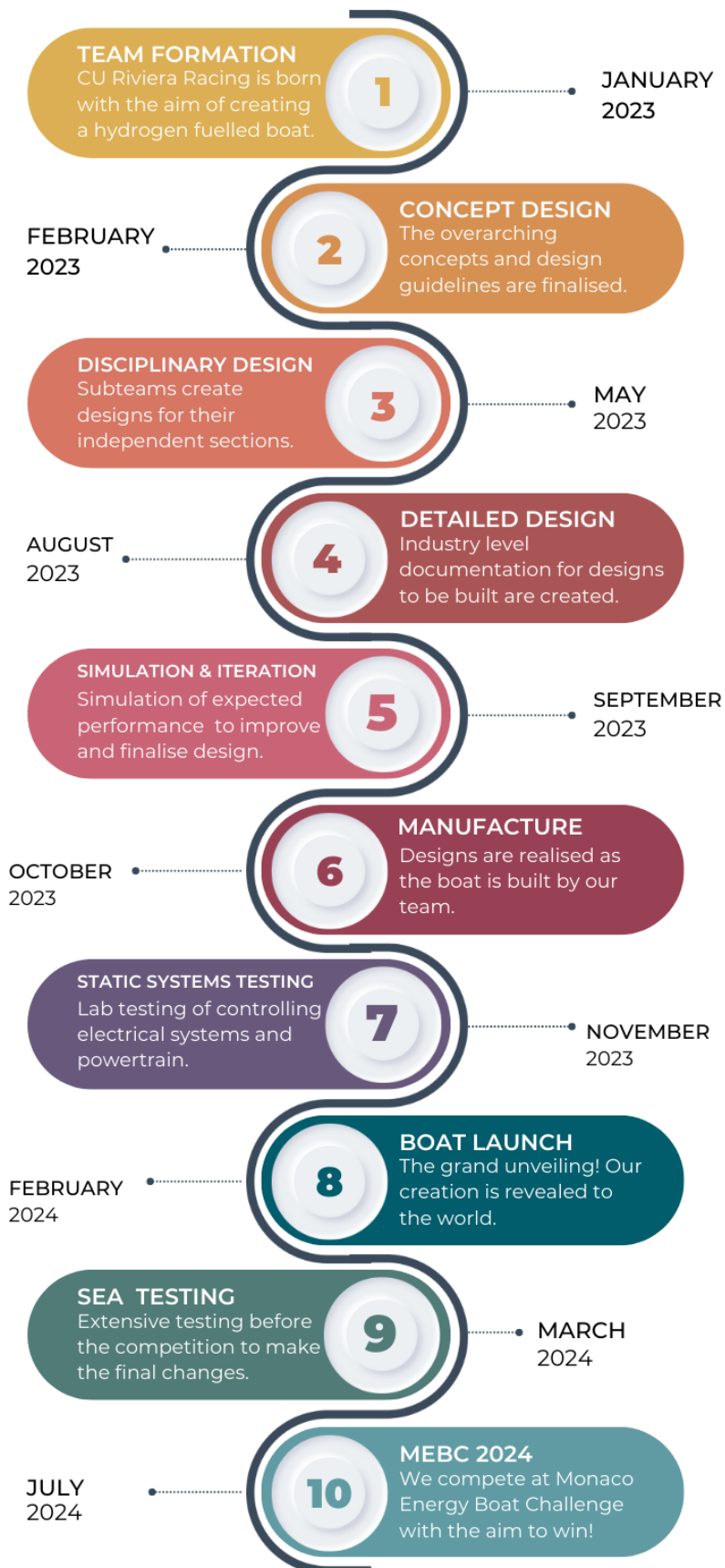
## THE LOCATION

A legendary jewel along the French Riviera, the competition is hosted by the prestigious **Yacht Club de Monaco**. Building on a **strong history of innovation** which has been reinvigorated in the **Capital of Advanced Yachting**, Monaco is an **unbeatable backdrop** to the competition. The Yacht Club de Monaco brings together over **2,500 members from 80 nationalities** with the most prestigious yachts in the world under its burgee, making it uniquely powerful as a **forum for sustainable innovation** in the maritime industry.





# THE ROAD TO COMPETITION



## OUR NEXT STEPS

We are currently working at the **Disciplinary Design stage**, with each sub team beginning to work on the main priorities. We are exploring the best balance between **speed**, **agility** and **endurance** through design options in each field, such as the inspiration from aerofoils in the cockpit body, different power management algorithms and various shapes for the propellers.

As we move ahead, we are looking for **specific parts** and **suppliers** to collaborate with to realise our concepts as well as **general partners** who can help us with **funding** and **technical advice**.

# OUR CONCEPT

## HYDROGEN TANKS

Modular placement of tanks allows for easy access and replacement or refuelling during use.

## HYDROGEN FUEL CELL

A PEM Fuel Cell reacts our onboard hydrogen fuel with oxygen in the surrounding air to generate a clean electricity supply leaving water as the sole by-product in turn for 3kW of continuous power.

## ELECTRIC PROPULSION

Using just 4kW of power provided by the PEM fuel cell along with solar panels to power electric motors which leave zero exhaust carbon emissions.

## SOLAR PANELS

Flexible photovoltaic cells moulded into the shape of the aerofoil body provide up to 700W of continuous power to the motors.

## AEROFOIL BODY

Efficient aerodynamic design of the boat body reduces effective displacement of the vessel by up to 20%.

## WIDE SPAN PROPELLERS

Optimised larger diameter propellers improve efficiency of propulsion system in delivering thrust to the boat.

# MEET THE TEAM



**HARSH SINHA**

Co-Captain & Director of Operations



**DIVY DAYAL**

Treasurer & Secretary



**ANSH SHARMA**

Simulations & Testing Lead



**MRIDHULA SRIDEVI PRABHAKAR**

Vehicle Dynamics Lead



**SANADI ILANDARIDEWA**

Energy & Fuel Cell Lead



**RAY WANG**

Co-Captain & Chief Engineer



**HERAMB MODUGULA**

Deputy Chief Engineer



**NIKKO TEN HAVE**

Control Systems Lead



**TERRENCE NG**

Structures & Body Lead



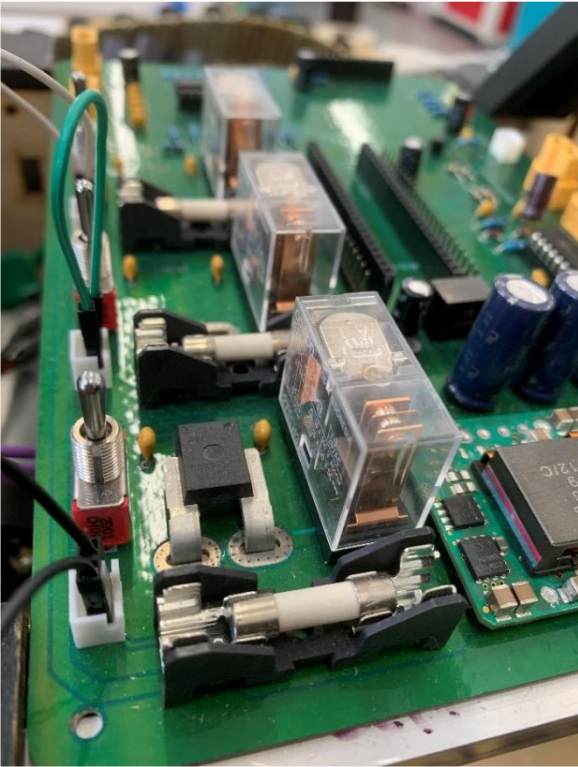
**THOMAS YAM**

Power Electronics Lead



# GETTING INVOLVED

*With our first build cycle now well underway, there has never been a better time to get involved. We are always excited to welcome new partners to the Riviera Racing family – see below for some of the benefits of getting involved:*



## INSPIRING YOUNGER GENERATIONS

As part of our commitment to **inspiring the next generation of engineers**, we aim to run open days and outreach events at local schools and within our community, **encouraging the youth of today to create tomorrow's environmental energy solutions.**

## GRADUATE RECRUITMENT

Through **close collaboration** between members of the Riviera Racing Team and our industry partners, we expect both alumni and partners to benefit in finding **excellent graduate employment partnerships.** We can also offer **networking and recruitment events** at the Department of Engineering.

## TESTING NEW TECHNOLOGIES

Our boat will be **tested extensively** in the run up to the competition, allowing our technical partners to have their **products tested at the same time.**

## INCREASED PUBLIC VISIBILITY OF PRODUCTS

Both through **branding on the boat and our uniform** as well as **product placement at events**, we can provide a public platform where your product will be associated with **endeavour and innovation.**







## CREATING CONNECTIONS IN CAMBRIDGE

We are the newest student team from the Department of Engineering, attracting a distinctive selection of the brightest students in the department and working with leading academics.

## SUPPORTING INNOVATION IN ZERO EMISSIONS TECHNOLOGY

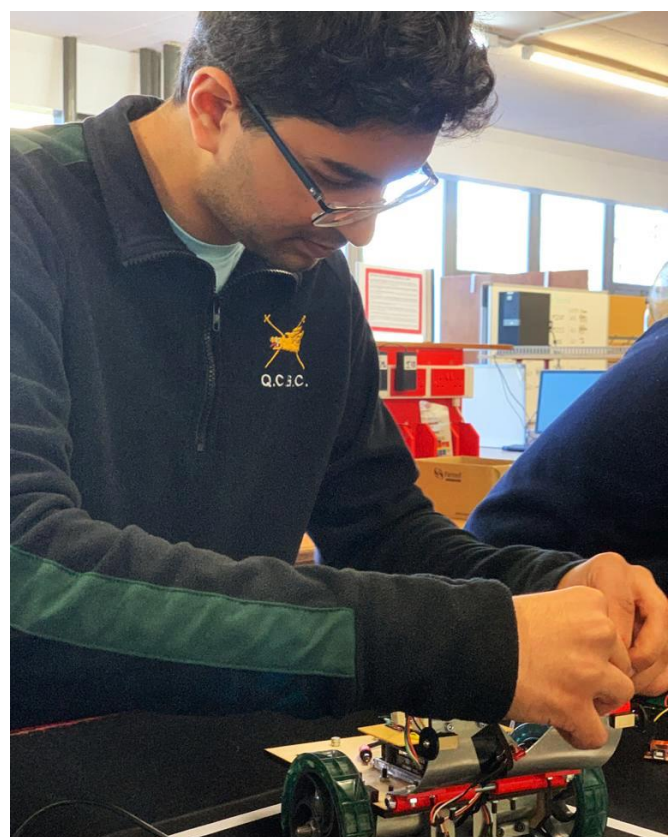
All our work goes towards our goal of proving the viability of hydrogen as the fuel of the future for marine vehicles.

## PUBLIC EXPOSURE

As part of our mission to **increase awareness of the hydrogen fuel cell technology** we will use, we are always looking for ways to let people know more about what we are up to and who we are working with. The Monaco Energy Boat Challenge, **unique in its role as a hub for innovation in clean energy propulsion** and including **prestigious teams from 20+ countries**, is also the perfect event to promote our mission and our partners.

## CORPORATE SOCIAL RESPONSIBILITY

Supporting Riviera Racing represents a company's **commitment to the environment and social aims** by supporting **innovation in clean technologies** and the **education of young people in engineering and the maritime industry**.



# PRESS & COMMUNICATIONS



## INTERNATIONAL MEDIA

As one of the **biggest annual events for maritime innovation**, the Monaco Energy Boat Challenge has had over **350 articles** and draws media outlets from **70+ countries**. We will also publish **joint press releases** with partners, increasing your visibility in **association** with both a **prestigious competition and university**.

350

ARTICLES

70+

COUNTRIES

40

TV & RADIO  
BROADCASTS



## DIRECT COMMUNICATIONS

We send our **termly newsletter** to the whole Riviera Racing family, including students, academics, and partners. We also feature **publicity material** in the newsletter to **inform our community** about the products offered by our partners. We are open and responsive to all queries, with partners being given **direct email and phone number contacts** to keep in touch.



## SOCIAL MEDIA PRESENCE

With new accounts on **LinkedIn** and **Instagram**, upcoming accounts on **Twitter** and **Facebook** and a **tech savvy communications team**, we will **post consistently** on all our platforms to **maximise engagement** with the build cycle and **promote our partners**.



## CONFERENCES & EVENTS



Despite being a brand-new team, CU Riviera Racing have already been invited to attend the **12<sup>th</sup> Environmental Symposium** at Monaco Ocean Week. On our journey to MEBC 2024, we will continue to **attend leading industry events** to **spread the word** about our project and partners.









# OUR PARTNERSHIP PACKAGES

We would be **open to sponsorships in-kind**, with the most appropriate band for each partnership determined on a case-by-case basis.

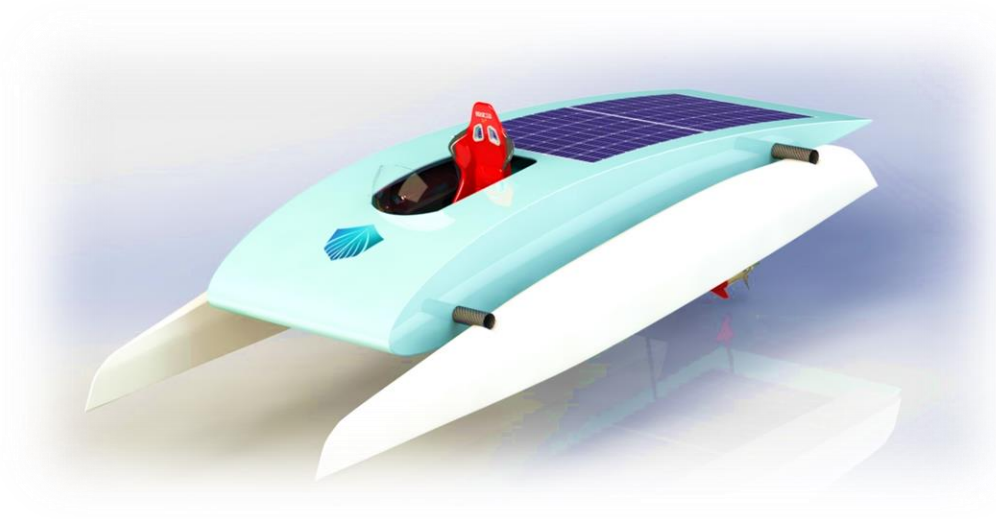
We are also always excited to hear what other arrangements our partners are interested in beyond those mentioned below and would **welcome any discussions for alternative arrangements**.

PARTNER BENEFITS	BRONZE PARTNERS (Approx. £1,000)	SILVER PARTNERS (Approx. £5,000)	GOLD PARTNERS (Approx. £10,000)	DIAMOND/TITLE PARTNERS (Over £15,000)
Small logo on boat hull				
Medium logo on boat hull				
Large logo on boat hull				
Prominent large logo on boat hull				
Small logo on partners document page				
Medium logo on partners document page				
Large logo on partners document page				
Prominent large logo on partners document page				
Logo in footer of document pages				
Full partner page in document				
Smaller logo on competition uniform				
Larger logo on competition uniform				
Prominent large logo on competition uniform				

PARTNER BENEFITS	BRONZE PARTNERS (Approx £1,000)	SILVER PARTNERS (Approx £5,000)	GOLD PARTNERS (Approx. £10,000)	DIAMOND/ TITLE PARTNERS (Over £15,000)
Logo and company description on our website				
CU Riviera Racing promotional material for your website				
Product placement at events and on social media				
Promotional product stand at our events				
Presentation about your company to our team members				
Host talks about your company in Cambridge University				
Presentation about us at your company HQ				
Presentation about us with the boat at your company HQ				
VIP access to MEBC including opening and closing ceremony and conference lunch				
VIP lunch experience at member-only YCM restaurant				
Invitation to boat launch unveiling				
Boat launch event named in honour of your company				
Opportunity to promote your internships & graduate schemes to our team & alumni				
Joint press release announcing partnership				
Termly team progress updates in newsletter				
Company promotion in team newsletter				



# THANK YOU



*To find out more and get in touch with us:*



[team@rivieraracing.co.uk](mailto:team@rivieraracing.co.uk)



Cambridge University Riviera Racing



[CU\\_RivieraRacing](https://www.instagram.com/CU_RivieraRacing)



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