

Marine Autonomy Challenge (MAChallenge) 2023

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Chair

Marine Autonomous Systems Group Council



What's MAChallenge all about?

Encourage future talent that is the life-blood of the UK's MAS industry.

The challenge:

- To get undergraduate students thinking about role of MAS in addressing societal challenges
- Stretch students' knowledge and promote creative thinking
- Encourage team working through a variety of individual skills
- Connect the brightest young talent coming through the UK's universities with the UK's MAS Industry

How?

- Autonomous control of a USV to solve a range of given tasks

Competition Scope

- Teams of up to **five**; **four** of whom **must** be full time undergraduate students registered at a recognised UK university.
- Three phases:
 - Phase I – Video submission
 - Phase II – Project coaching
 - Phase III - On-water competition
- Teams will be down-selected after Phases I & II
- Cash prize to the winning team



The USVs



Catamaran GRP hull (ca. 2m long)



Propulsion system, providing differential steering:

2 x Blue Robotics T200 thrusters and Electronic speed controller (ESC)
Battery



Autopilot with GPS



Sensor payload

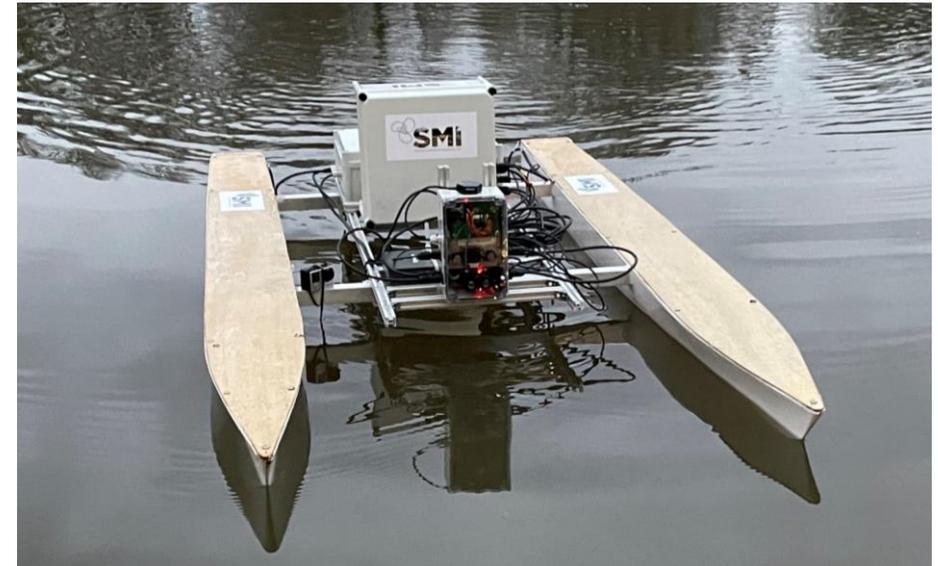
Camera
Proximity sensor



Micro-PC for team's software



Communications (wifi)



Live (in person) Competition (June 2023)

- Timsbury Lake Shiphandling Centre, Hampshire
 - <https://www.solent.ac.uk/facilities/ship-handling-centre>



We need industry to be involved

- Sponsorship
 - MONEY!! – we need to pay for finalists' travel, food and accommodation
- In-kind contributions
 - Join the organising group
- Team mentoring
 - Keep them on track and help them be successful
- Participate in the events
 - Show them you're interested in their talent



Key Dates (TBC)

Date	Event
16 March 22	MAChallenge 23 launched
June 22	Call for Expressions of Interest
Sep 22	Call for video submissions opens
2 Dec 22	Deadline for submission of videos Finalists shortlisted
24 March 23	Final 3 teams selected
5 May 23	Ready for competition check
17 – 18 June 23	On-water finals week at Timsbury Lake

Thanks for listening – any questions?

- Please visit <https://www.maritimeindustries.org/Maritime-Autonomy-Challenge> for up latest information
- Please spread the word about the competition!
- Please contact MAChallenge@maritimeindustries.org if you're interested in supporting MAChallenge 23

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Marine Autonomy Challenge (MAChallenge)

Congratulations to the MAChallenge 2021 winners - UCL!

> MAChallenge Rules and Regulations 2021

> MAChallenge FAQs

> Video Submission Guidelines

News

3 March 2022

Seeing red in the wake of the Tongan Tsunami

Seeing red in the wake of the Tongan Tsunami. Ghana Ports Authority lead the way for Environmental Monitoring.

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**Thanks for
continuing to
support
MAChallenge**



**National
Oceanography
Centre**