

INDUSTRY PARTNER PROGRAM PROSPECTUS



FY2023-24



NU TEAMS

NU Teams is the University of Newcastle **professional engineering student teams organisation.**

Our mission is to develop **intensely motivated, professional, and capable** engineers through **real-world, hands-on, design & build** projects.

We are seeking **local industry leaders** to contribute **funding support, industry access** and **mentoring** opportunities for our region's rising stars in key fields of engineering technology.



OUR TEAMS

NU Teams currently incorporates three **competition-focused** teams;



NU Racing designs, manufactures and tests a **160 kW, 250 kg electric race car** for the **national Formula-SAE competition**.



NU Marine develops **machine vision** and **path planning** algorithms for an **autonomous boat** platform, contesting the **international Maritime RobotX Challenge** competition.



NU Rocketry designs and manufactures **rockets** capable of flight to **5,000 and 10,000 ft** for the **national AURC rocketry competition**.

OUR STUDENTS

NU Teams projects serve as a platform for highly experiential **extracurricular, directed reading, and Final-Year (honours) projects.**

Through NU Teams, students develop **technical design & build skills** not otherwise taught in an engineering degree. Among these are conventional and **CNC manufacture, PCB design and manufacture, rapid prototyping, Git, ML model training, etc.**

In addition to their specialist/technical/research project focusses, our students also develop **business/workplace and project management skills**, using modern, industry relevant tools – e.g. **MS Teams/SharePoint/Project & PLM/PDM**, making them “job ready” in ways that may otherwise take months or years to develop, post-graduation.



OUR GOAL

NU Teams will **compete at the highest level** of each engineering competition we contest.

While **we have consistently punched above our weight** in these fields, leading teams (e.g. Monash, UTS, Delft) have long competed with far larger budgets – with some student teams programs attracting >\$500k.

In 2022, we took the fight to these big players – bringing home **4th overall** at the Australasian Formula-SAE competition (a 20-year best for our university) and **5th overall** in the international Maritime RobotX competition (a 10-year best).



INTERNAL SUPPORT

The University supports NU Teams through a **dedicated**, recently renovated, and **industry-authentic** workspace in the TA building.

This space is equipped with a **prototyping print farm**, dedicated **electronics laboratory**, clean assembly area, and **hotdesking office/meeting space** for 100+ NU Teams students.

The university also provides **academic supervisors** for each project, and a competitively modest **operating budget** (~\$100,000) to help finance the manufacture of our competition vehicles.



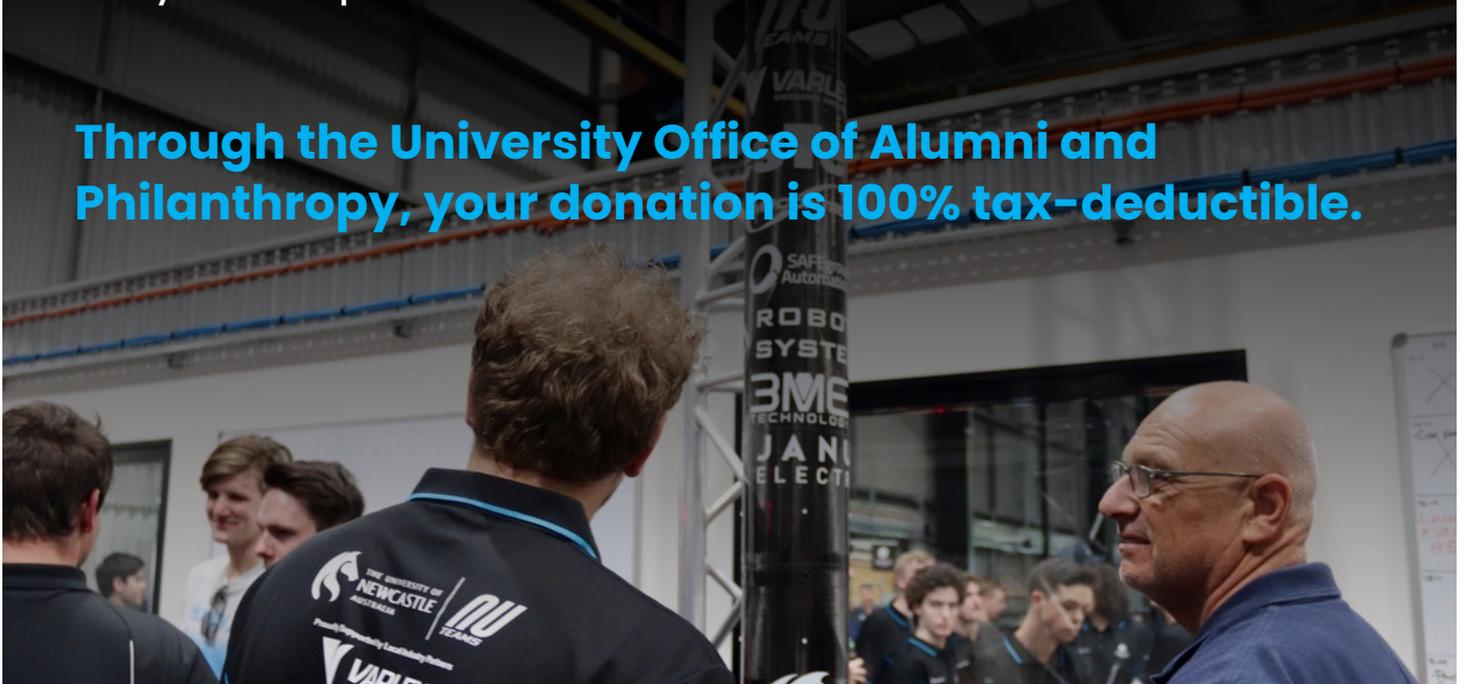
OUR PROPOSAL

We seek your support as a collaborator and Industry Partner, through a **donation of \$10,000** to support NU Teams in the 2023-24 Financial Year.

We will also seek complimentary industry partners to join to **help us raise a total of \$100,000 this financial year** to support NU Teams operations. Your support will be used for essential expenses to fund the expansion and competitiveness of our teams in their national competitions, including:

- Critical components such as **electric battery packs**, **motors** and **controllers** required to manufacture our competition entries.
- **Sensors** and **dataloggers** to enable **testing** and **validation** of competition projects – e.g. aero rakes, tyre temperature sensor banks, etc.

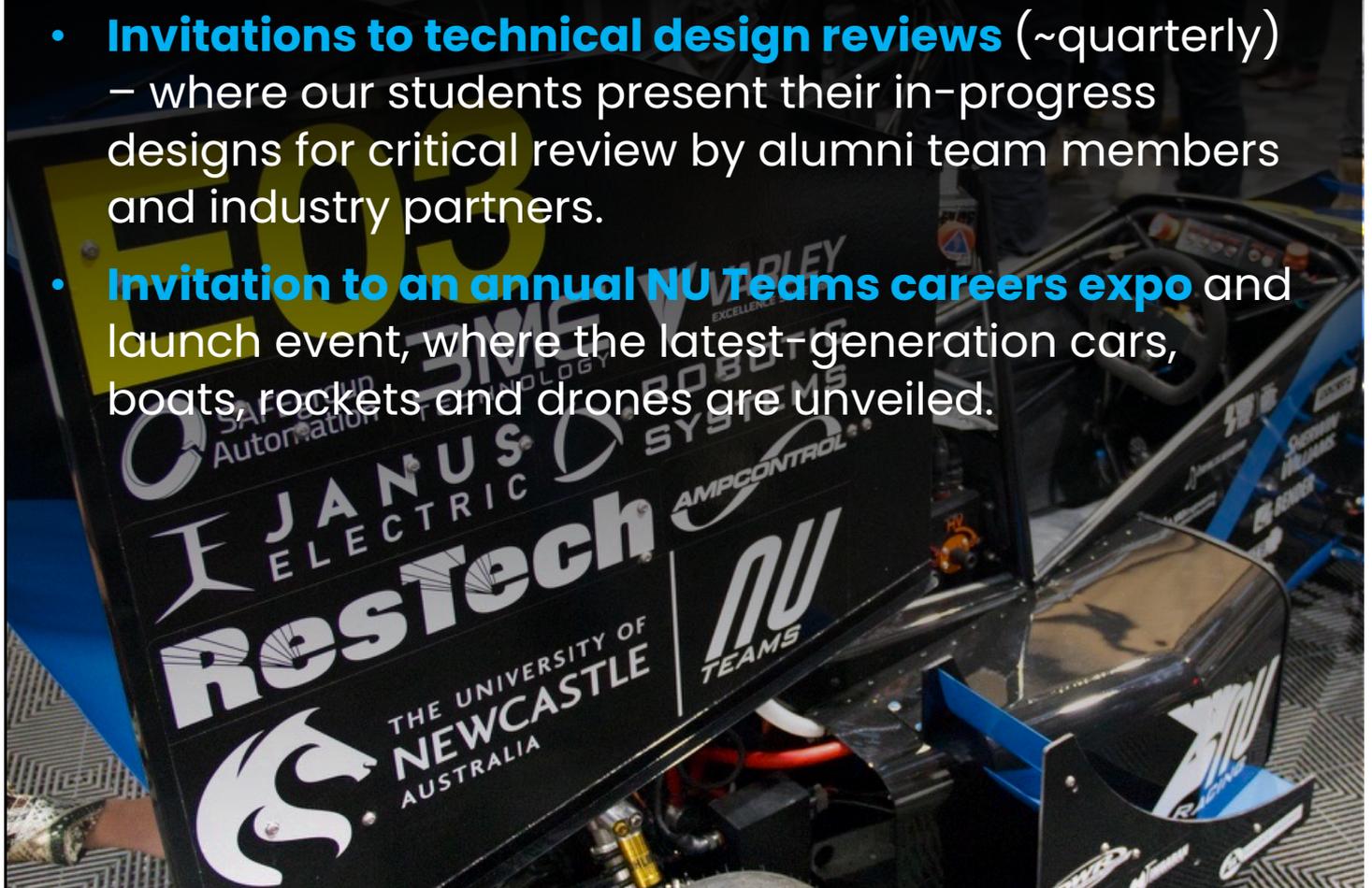
Through the University Office of Alumni and Philanthropy, your donation is 100% tax-deductible.



VALUE PROPOSITION

NU Teams is committed to **recognising** the contribution our industry partners make to the success of our operation, and to **helping our students build relationships that lead to industrial experience and employment**, through:

- **Partner branding** on our **team uniforms, competition and support vehicles.**
- Partner and NU Teams **site visits.**
- **Media collaborations** showcasing our University's best and brightest engineering students and their engagement with industry.
- **Invitations to technical design reviews** (~quarterly) – where our students present their in-progress designs for critical review by alumni team members and industry partners.
- **Invitation to an annual NU Teams careers expo** and launch event, where the latest-generation cars, boats, rockets and drones are unveiled.

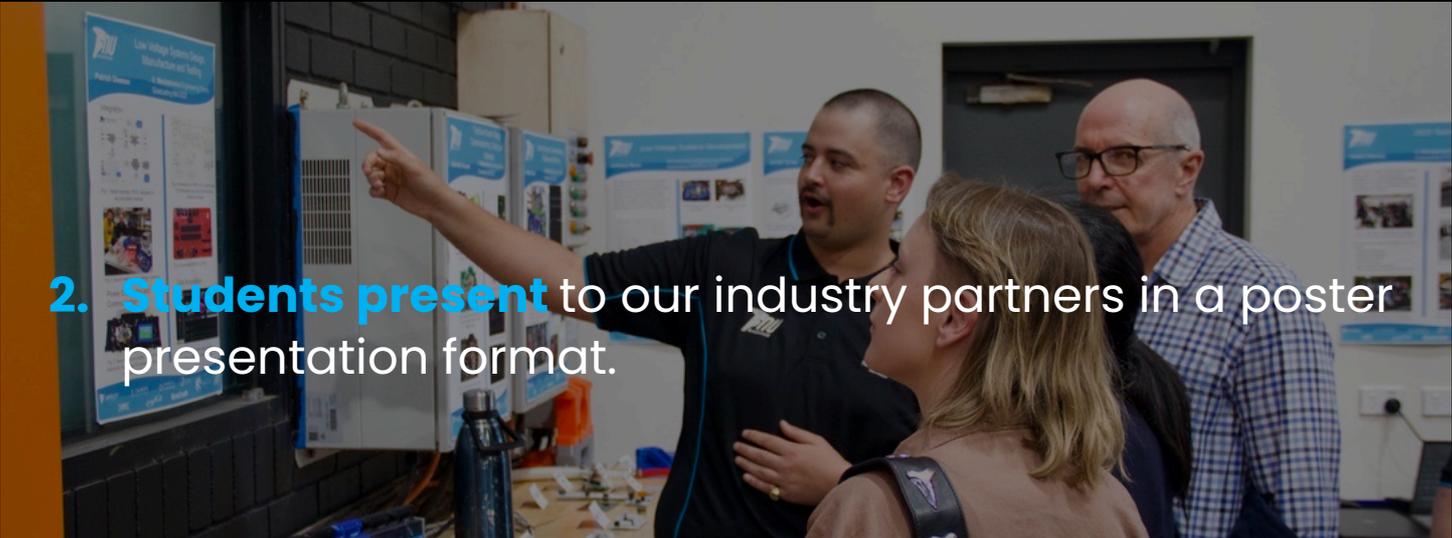


NU TEAMS EXPO

Our annual **NU Teams Expo** is our **premiere networking opportunity** for students and industry. This evening, held in November, **incorporates the reveal of our competition racecar, boat and rocket**, and is run in two halves:



1. Industry partners present to our students on their business, as well as current job and industrial experience opportunities.



2. Students present to our industry partners in a poster presentation format.

The expo has proven to be a fantastic networking opportunity – in 2022, **many business cards were exchanged**, and many NU Teams students **secured employment** and placement with local industry partners.

FY 2022-23

INDUSTRY PARTNERS

Thank you to our FY2022-23 Industry Partners for your support of our student teams.



NEXT STEPS

To discuss joining our industry partner program, please contact:

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