FROM CAIRNS-TO-AUCKLAND, AN EPIC CHALLENGE OF TECHNOLOGY, INNOVATION AND THE ELEMENTS IN THE

TRANS-TASMAN ROBO-RACE

JULY 2021 → NOVEMBER 2021

QUEENSLAND ROBOTICS
BUILDING A SUSTAINABLE ROBOTICS INDUSTRY

JULY 2021
2-day race series, Queensland competitors

SEPTEMBER 2021
3-day race series, Australian competitors

NOVEMBER 2021
Trans-Tasman Cup

Autonomous boat race challenges, with roboticists, engineers, academics, industry-leaders and hobbyists showcasing the best of their unmanned marine vehicles, finishing with a race across the Tasman Sea.

CONTRIBUTE, COLLABORATE, COMPETE & SHINE

The Trans-Tasman Robo-Race will raise awareness of marine robotics' capacity in Australia and New Zealand, and while pushing that capacity through events that stimulate healthy competition and innovation within the Australian, New Zealand, and international robotics' sectors.

THE OPPORTUNITIES

- **Raising awareness** and **stimulating ecological protection** for our rich coastlines
- **Creating** opportunities for **international participation** in an Australian-led robotics technology event
- **Advancing** the **science and technology** available to marine robotics
- Demonstrating robotics' use in **ecological tourism** and **alternative tourism** (e.g. safe remote access to the **Great Barrier Reef**)
- Attracting and encouraging **a younger generation** to robotics and marine technology
- Strengthening the **relationship between Australia and New Zealand** in reciprocal **technology exchange** and **market development**
- Providing proof-of-concept for **unmanned transport** between Australia and New Zealand (**Covid-responsive** technology development).
- A **good news story** – timely opportunity to rally as a country, meet challenges, and find inspiration

QUALIFYING & SHOWCASE EVENTS

The qualifying and showcase events have multiple functions. For instance, the events will be used to demonstrate and test participation fitness and seaworthiness, in addition to their function as promotional and community opportunities.

Brisbane River Showcase
A short agility course in the Brisbane River, to display and test capability.

Moreton Bay Showcase
Building off the Brisbane River showcase, Moreton Bay's course will cover a longer distance, but still with greater control of externalities than possible in the Cairns-to-Auckland crossing.

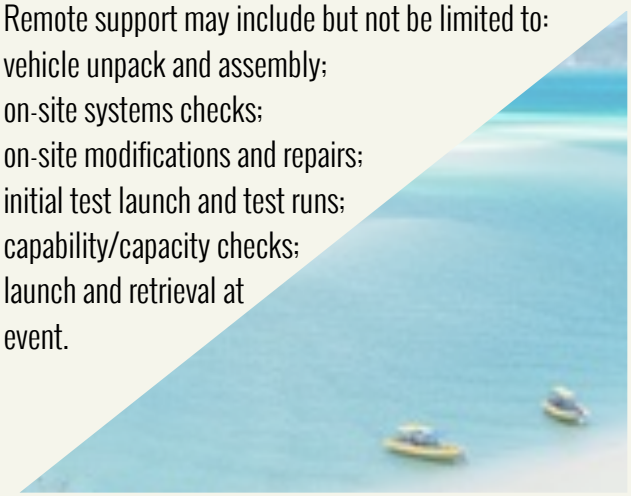
Brisbane-Townsville Qualifier
Building off the Moreton Bay showcase, the Townsville qualifier may include circumnavigation of Green Island.

Whitsunday Showcase
Remote eco-tourism showcase – demonstrate opportunities for safe tourist experiences of Great Barrier Reef.

INTERNATIONAL & REMOTE PARTICIPATION

On-site support may be provided to facilitate remote participation in events. This enables international participation, and allow the event to proceed while meeting and respecting Covid restrictions and realities.

Remote support may include but not be limited to:
vehicle unpack and assembly;
on-site systems checks;
on-site modifications and repairs;
initial test launch and test runs;
capability/capacity checks;
launch and retrieval at event.



SAFETY & SCRUTINEERING

Participant vehicles will be vetted by expert scrutineers to ensure vehicle and team meet eligibility criteria.
Eligibility criteria may include:

- vehicle size and mass (ensure low risk to existing boating traffic in the crossing); object detection capacity; alert system capacity; compatibility with tracking, tracing, and monitoring solutions used by the event team (may include satellite communication to IoT devices).

Event restrictions may include capping of daily speed. This may be done both for safety reasons, and to allow capture of and competition against a greater variety of metrics (e.g. efficiency metrics). Primary event may be run in phases, to allow multiple parallel categories to compete, e.g. organized by vehicle type/class.

Rescue services will be involved in the planning process, a telecomms partner secured for satellite positioning, and insurer secured to manage any unforeseen risk.