

CANSAT CHALLENGE



You're invited to be part of the University of Waikato CanSat Challenge 2025.

This challenge is an exciting opportunity for high school mathematics, science, and technology students to enter the realm of space exploration! The competition involves the design, build and launch of a soda can-sized rocket payload and offers a unique opportunity for students to apply their classroom knowledge to real-world challenges.

This programme is supported by the School of Engineering at the University of Waikato, and the University of Waikato Astronautics Club with the assistance of the New Zealand Rocketry Association (NZRA)

Register Your Team Now! Last day for registrations is Tuesday 20 May 2025.

For more information and to register, visit waikato.ac.nz/CANSAT or contact us at engineering@waikato.ac.nz

Why Participate?

- **Hands-On Learning:** Engage your students in a hands-on, practical application of their STEM education.
- **Rocket Science Experience:** Gain valuable experience in the field of aerospace engineering. This challenge provides a rare chance for students to work on a project that involves actual rocket launches.
- **Build key skills:** Problem solving, teamwork and critical thinking skills are encouraged as students collaborate to overcome the unique challenges presented by the CanSat competition.



FOR THE PEOPLE
KO TE TANGATA



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Who can enter?

Teams of 3 – 10 secondary school students (aged 14-19 years old).

What's involved?

1. **Assemble Your Team** of enthusiastic students (maximum of 10) with an interest in mathematics, science, and technology.
2. **Complete your registration:** Registrations close on Tuesday 20 May 2025. Visit our website waikato.ac.nz/CANSAT to secure your spot!
3. **Imagine:** Your team will design a CanSat that will achieve the mission requirements.
4. **Bring your design to life:** Work with your team to build and test your CanSat - a miniature payload housed in a standard-sized beverage can. Teachers play a crucial role as mentors and in guiding students through the design, construction, and testing phases. Entries are reviewed by our experts and entrants given feedback throughout the process.
5. **Launch:** The culmination of the CanSat Challenge - Flight Day! On 7th September 2025 (weather permitting), from the Orini launch site, students can watch their creations soar into the skies on one of the University of Waikato's rockets and complete their missions.



Support

For this challenge we will provide each team with:

- Zoom sessions with one of our rocket experts, including tips on design, technical support and problem-solving.
- Feedback and updates at key points during the design process helping ensure your teams successful mission.
- For the first 10 teams who register, we will cover the materials cost, including an Arduino-based flight computer to a maximum of \$300, to get you started. We can make these flight computers available at cost to other teams.

CanSats that meet the technical requirements will be launched on one of our rockets to an altitude of around 1 km. As the Cansat descends, its mission to take measurements and transmit the data back to earth, begins.

Cost

- Entry fee \$50 per team
- Materials - approx \$200 - \$500 all up (but see above support for the first 10 teams who register).

Note: Any transport or other costs are the responsibility of the participating schools.

Be part of the CanSat Challenge 2025 and encourage your students to reach for the stars!

For more information and to register, visit waikato.ac.nz/CANSAT or contact us at engineering@waikato.ac.nz

Ignite Curiosity, Inspire Innovation,
Soar Beyond Limits!

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