Sponsor Role

- The sponsor sets the goal and direction of the project to suit their business needs.
- The sponsor is entitled to full ownership of all IP generated during the project.
- Students sign a non-disclosure agreement to ensure confidentiality.
- The sponsor makes a donation of $9750 (+GST). Any additional costs are invoiced to sponsors, with authorisation for expenses gained in advance.
- The sponsor supplies necessary specialist equipment or materials.
- Often the project aim is to add value or provide proof of concept.

Typical Project Areas

Recent sponsors include Hamilton Jet, Fonterra, Fisher & Paykel, Springfree, Kiwirail, and Methanex, and many others in areas including:

- Bioengineering and healthcare
- Aviation
- Transport
- Food processing
- Agritech and irrigation
- Marine
- Energy management
- Process optimisation
- Surface treatments
- UAVs
- Power systems
- Inspection/measurement
- Automation
- Manufacturing
- Industry 4.0

'This final year project collaboration scheme between Industry and the University is highly successful. With a concise project proposal the results were simply beyond expectations. We will not hesitate to engage in this process again.'

Wayne Mason

Senior Technical Leader Fisher & Paykel Appliances

Postgraduate Research Projects

If you are looking to solve a highly complex technical problem, we can collaborate with businesses on a longer project. We can help secure national funding and R&D grants to fund projects that solve a challenging R&D problem in your business with PhD or masters research.

Consulting

You can also engage with our expert academic staff to solve immediate, specialist technical problems through consultancy. Businesses and organisations are also able to access our specialist equipment and lab facilities.

Our fields of expertise span a broad range of areas, including (but not limited to):

- Acoustics and Vibrations
- Applied Mechanics
- Biomedical
- Design
- Energy
- Electrospinning
- Element
- Fluid Mechanics
- Manufacturing
- Materials Science and Engineering
- Corrosion
- Composite materials
- Natural Fibre and Biocomposites
- Robotics, Control and Instrumentation
- Thermodynamics and Heat Transfer

Contact Us

To find out more visit **https://www.canterbury.ac.nz/engineering/schools/mechanical/industry-collaborations/** or contact:

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Department of Mechanical Engineering
College of Engineering

UC UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

R&D for Industry

UC ENGINEERING
Te Rāngai Pūkaha

Collaborate with us on innovative solutions

We work with industry to solve industry-relevant problems. Leverage our mechanical engineering expertise and external R&D grants (ie Callaghan Innovation) to take your technological innovation to the next level.

Engage the Gears in your Industry

We can offer solutions to your technical problems in a variety of ways to suit your needs.

- Sponsor a final year student R&D project to solve broad technical feasibility problems.
- Solve complex technical problems through a postgraduate (Masters or PhD) student project, research group or fellowship.
- Engage expert academic consultants to solve immediate, specialist technical problems.
- Secure students for summer work or graduate positions.

Engagement type	Student/ Researcher	Start time	Duration
Final Year Student R&D Project	Final year mechanical, mechatronics and electrical engineering students (group of 4)	February	8 months
Postgraduate research project	Masters student	Anytime	1 year
Postgraduate research project	PhD student	Anytime	3 years
Consulting	Expert UC academic staff/ researcher	Anytime	Varies

‘Our project was targeted on the important viticulture and horticulture industries. Based on very specific parameters from growers, the team developed both the design and prototype builds under our guidance. We estimate that our charitable donation cost us the equivalent of six weeks of labour in the workshop, but moved our understanding of the solution forward by around twelve months. That is a win-win for everyone involved.’

Elton Hyde Lyndon Engineering

Final Year Research and Development Projects (FYP)

All of our mechanical and mechatronics engineering students take part in a Final Year R&D Project (FYP) scheme. Our projects are industry sponsored, and businesses generate the bulk of the projects to suit their R&D needs.

A team of four final year students, an academic supervisor and a mentor from your organisation will work together on the project over the year. They might develop a product, build prototypes or make predictive models of your processes.

Students have use of our mechanical engineering laboratories, computing facilities and technical staff. Our academic mentors coach the students in planning, budgeting, and problem-solving. The teams are in frequent communication with their sponsor and deliver concepts, prototypes, test data and detailed reports at the end.

Why Sponsor a Project?

There are many benefits to your business. The project value is normally equivalent to a $40,000 – $100,000 development effort and involves:

- 1000 hours of student work (usually more)
- 30 hours of academic staff supervision
- 80 hours of technician time
- use of software, equipment and labs.

The use of four-person teams makes it possible to undertake projects with a reasonably large scope, and it **runs from February through to October** each year.