

Dear Hiring Manager,

I am writing to express my interest in the Industrus Engineering Graduate Program. As a final-year Mechatronic Engineering (Honours) and Medical Science student at the University of Technology Sydney, I am keen to bring my technical expertise and passion for innovation to your team. I am particularly excited about the diverse opportunities in your graduate program and the chance to work on complex projects that push the boundaries of engineering. I believe my experiences and skills make me a strong fit for this role, as demonstrated through my academic and professional accomplishments.

A commitment to ethical conduct and the highest standards of professional accountability (3.1)

During my internship at Bromic Heating Pty Ltd, I was tasked with revising the packaging design for one of our products to make it more sustainable while maintaining performance standards. The challenge was to find an environmentally friendly solution without compromising impact resistance. I thoroughly researched alternative materials and collaborated with suppliers to explore options. Although I did not conduct physical testing, I made sure to align my recommendations with technical specifications and environmental standards. This project demonstrated my commitment to ethical conduct by ensuring that sustainability efforts were balanced with functional requirements. My adherence to high ethical standards throughout the process strengthened my accountability to the company and its environmental goals.

Demonstrated ability to effectively communicate with other engineers and stakeholders from different fields (3.2)

One key project at Bromic Heating required collaboration with various teams and external suppliers. We were developing new product designs and needed to certify them for international markets. I played a central role in communicating with suppliers from the US, EU, and Australia to ensure that our product met certification standards in all regions. This involved navigating different regulatory environments and coordinating between suppliers and our internal engineering team. My ability to communicate technical requirements clearly, and tailor information to different audiences, helped ensure smooth progress in the certification process.

The ability to engage with a creative, innovative, and proactive environment (3.3)

I have always sought environments that foster creativity and innovation. One notable example was my participation in the Warman Design and Build Competition at university, where I led a team to design and build a robot. Our challenge was to create a system using an Arduino-controlled telescopic arm to release a payload at precise locations. The project required creative problem-solving, particularly in refining our robotic control system. We experimented with different mechanisms and sensors to ensure accuracy and efficiency. The experience taught me the importance of being proactive in exploring multiple solutions, and it also reinforced my passion for working in environments that value innovation.

Demonstrated ability to use and manage information (3.4)

In a project at university, I worked on the design of a 4-wheeled wind-powered vehicle. My role involved deploying sensors using Arduino to collect data on the vehicle's trajectory and performance. I managed sets of data to analyse it to optimise the vehicle's design. Similarly, during my time at my engineering internship, I had to manage technical information from suppliers to compare materials for our packaging project. I regularly evaluated cost, recyclability, and load-bearing capacities, relying on supplier-provided data to make informed decisions. My attention to detail and ability to manage and interpret technical data has been crucial in delivering successful project outcomes.

The ability to manage your own performance in a professional environment (3.5)

At my engineering internship, I was often tasked with multiple responsibilities, from supporting senior engineers in developing product designs to assisting in testing new controls. I independently managed my workload to ensure deadlines were met without sacrificing the quality of my work. For example, I balanced my regular engineering duties with organising a BBQ fundraiser for the Kid's Cancer Project, raising approximately \$1,600. Managing both technical responsibilities and event planning demonstrated my ability to work efficiently under pressure and manage my own performance in a professional setting.

A demonstrated ability to work as part of a team and to show leadership when required (3.6)

Throughout my academic and work experiences, I have consistently demonstrated strong teamwork and leadership capabilities. At Kmart Penrith, I led small teams of 6–8 people during day and overnight shifts, ensuring that stock was processed efficiently and that team goals were met. Similarly, during the Wind Powered Vehicle project, I worked collaboratively with my teammates, contributing to the design process and

supporting others in the technical implementation. These experiences have taught me the importance of collaboration and leadership in achieving shared goals.

Thank you for considering my application for the Industrus Engineering Graduate Program. I am confident that my academic background, technical expertise, and ability to work in innovative, collaborative environments make me well-suited to contribute to your team. I look forward to the opportunity to discuss my application further.

Sincerely,

Ravindra Liyanaarachchi