

Why I want to be a professional engineer:

Sarah Macdonald

I never had dolls as a kid. I had Lego and blocks and cars and trains and I spent my time working out the best way to build boats and cities and planes. Combined with a curiosity about the natural world around me, I was soon reading "How It Works" books and asking all sorts of difficult questions of those around me. This love and desire to understand the biological, physical and chemical world around me has blossomed as I have progressed through the sciences.

At first I wanted to be a vet, thinking that my love of animals and science would combine well for this degree. This idea remained firm in my mind through the first three years of my time at New Plymouth Girls' High School until Year 12 when we were required to choose which science subjects we would continue with. With vet in mind, I decided on all three sciences and maths. I soon discovered however that my real passion lay not in biology but chemistry and physics and with this came a desire to change my career choice. I found much more enjoyment in learning about physics principles which related to many completely different situations in life, and through this I also gained a better appreciation of the importance of mathematics. I have always enjoyed the logicity of maths but did not think that a career involving both maths and science would be possible. It still wasn't until this year that I really began to consider engineering as the best career to suit these very interests. After being captivated by a career talk for once in my life, I decided to look further into engineering and found that everything I discovered was appealing: from the problem-solving to the experimentation.

I always enjoyed the practical side of my subjects the most - seeing physics principles demonstrated in real life and the reactions of chemicals happening before us. I am an active person and so a hands-on lesson or job is not only what I enjoy but what I have been aiming for. Engineering gives me the option to spend time in the field as well as in the office. While the theory is interesting in itself, I know that as a job I would prefer to be using my knowledge in a practical sense. Transferring principles from one situation to the next, solving problems to help those around us and the progression of technology, doing something new every day and constantly learning more about the world around us. Engineering provides me the opportunity to combine all three sciences in the best and most useful situation possible: real life.

I have always had a desire to choose a career that will allow me to help others. To be able to make a difference in the world around me is something I would be proud of and engineering has so many applications that I am sure I will be able to achieve this. Whether through mechanical, chemical or another of the variety of disciplines, there will be ample opportunity to do some good in the world. With such a wide interest base and such a versatile career as engineering, I still don't know where this aspiration will lead me. Possibly into sustainable energy, cutting greenhouse emissions, research into tissue engineering, cell cultures, improving infrastructure, designing machinery, or improving chemical processes. Engineering can be applied to so many situations that the possibilities are endless and while I have not yet found anything that attracts me more than another, I am hoping that doing a general start to my engineering degree this year will help me to find where that passion lies and where the greatest good can be done.

Engineering is a field that just keeps growing and growing as new technologies emerge. And technology is advancing at a faster rate than ever before. To be at the forefront of these scientific discoveries and endeavours is an exciting prospect. Engineers are involved

in so many of these advances and so I see engineering as a profession that will take us into the future. Not only will there always be a demand for them but they will be playing a major hand in shaping not just ours but future generations' lives. To play such an important role is not only attractive but will ensure that the mind is always actively engaged; an opportunity that I could not pass up had I wanted to.

I have decided to study for a Bachelor of Engineering at Canterbury University as I feel that it will provide me the best opportunities and start to my career as an engineer. I have had to balance top level sport and study for as long as I can remember so my time management skills are great and I have learned to aim for and achieve to the best of my abilities. Canterbury University looks to be the best place for me to continue to work hard, achieve my goals and hopefully become a valuable member of the engineering community in the future.

This scholarship would be greatly appreciated to help me fund the aforementioned studies and I would ensure that it was used wisely to supplement the money that I have already earned and will continue to earn through part-time work.

In short, engineering appeals to me for a number of reasons. My interest and love of science (and maths) will be put to good use for the benefit of those around me and those to come. Problem solving, lateral thinking and motivation to succeed will ensure that I will make the most of such a dynamic career as engineering. And last but not least, I think I will enjoy it, more than any other career I researched or know of.