

Kris Eric Seinen

Course: E3007 Bachelor of Engineering (Honours) and Bachelor of Science – Third Year

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To the Monash Heart Hack Team,

With this letter I am applying for the MEC2402 MHH Special Project.

The area of biomedical sciences is my greatest interest as an interdisciplinary study with a focus on the robotics side of the field. The cardiovascular system has been a heavy focus of my last semester, specifically the unit PHY2042, and this project would allow me to combine what I have learnt from both sides of my double degree. My favourite part of any project has always been making the prototype as it allows me to put my ideas into a visual representation anyone can understand which encourages me to put a lot of effort into making it the best it can be. This assisted my team in ENG1012 to win the Best Prototype Award in 2022.

Outside of University I have been working as a Student SCADA Engineer at Gippsland Water for the last 1 and a half years, this work placement has provided me with skills that may be useful in the process of creating a mock circulatory loop and variable compliance chamber. For example, this position involves the maintenance of PID controllers which I think would be a great system for an artificial heart as it carefully maintains desired operating conditions. SCADA engineering has also made me more proficient in data acquisition, fault analysis and resolution, VSD drives, project teamwork and considering designs on an industrial scale.

This special project provides a unique opportunity to combine the concepts I have learnt until this point and work in a team of people who share similar interests.

Thank you for taking the time to consider my application and I look forward to hearing from you.

Warm Regards,

Kris Eric Seinen