

**The use of computer simulation to verify production process optimisation and enable physical prototyping of a portable healthcare device.**

oDocs Eye Care is a social enterprise founded and based in New Zealand. Their mission is to end preventable blindness by making eye care more accessible ([www.odocs-tech.com](http://www.odocs-tech.com)).

Waste minimisation and green technologies are also important to oDocs.

Their current devices are made from polymers but they want to investigate the use of MIM to make the next generation of device from titanium metal.

This project will see you evaluate component design through process simulation and analysis via computer aided engineering. There will also be the need to assess the application of processing methods to enable microscale machining of our mould tooling.

Based on the analysis and an optimisation study you will investigate the production of the tooling for moulding trials with our local industry people. Following acceptance of the moulded components, a functional product would be the target output.

Industry supervisor: Hanna Eastvold-Edwins, Chief Engineer, oDocs.

Research supervisor: Dr. Paul Ewart