
Marcus Hickel

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Education & Qualifications

Bachelor of Engineering (Mechanical) Diploma in Professional Engineering Practice <i>University of technology Sydney</i>	Ongoing
NSW Responsible Service of Alcohol & Responsible Conduct of Gambling	2015 - 2025
NSW Security Clearance & Explosives License	2027

Employment

Mechanical Engineer/Operations Engineer <i>Sperospace, Sydney</i> <ul style="list-style-type: none">• Design and manufacturing of prototype robotic arms in space• Writing documentation for Critical design reviews, standard operating procedures, and Risk management plans	Jan 2022 – Jul 2022 Aug 2022 - Ongoing
Mechanical Lead <i>UTS Rocketry Team, University of technology Sydney</i> <ul style="list-style-type: none">• Oversees and organises the work of the Teams Mechanical tasks..• Provides assistance, academic support, training, inductions and upskilling.	Jan 2022 – Ongoing
Bartender, Gaming Attendant, Cashier <i>Maroubra Seals Ltd, Maroubra</i> <ul style="list-style-type: none">• Calm and concise communication with patrons during peak times.• Maintenance and repair on gaming machines.	Dec 2016 – Dec 2019 June 2020 – Ongoing
Support of the Fatigue Testing Team <i>SIEMENS Mobility GmbH, Graz, Austria</i> <ul style="list-style-type: none">• Designing new configurations of the fatigue testing rig.• Developed a new standard set of parts to be used with the fatigue testing rig.• Performing FEA and fatigue calculations utilising MATLAB and Creo.• Communicated and Presented to colleagues in German.	Jan 2020 – May 2020
Machine Operator <i>Solutions in Plastic Pty Ltd, Gladesville</i> <ul style="list-style-type: none">• Operation of Manual Lathe• Programming of CNC Lathe utilising Fusion 360 CAM	Oct 2021 – Jan 2022

Technical Skills

Computer Aided Drafting

- Solidworks 2020, Fusion 360, Creo PTC.

Graphics Editor

- GNU Image Manipulation Program (Raster), Inkscape (Vector).

Word Processors, spreadsheet and presentation

- Microsoft Word, Excel, PowerPoint.

Programming

- MATLAB, C++, Lua, HTML.

Manufacturing

- 3D Printing FDM, CNC & Manual Lathe, Laser Cutting

Notable Activities

UTS Rocketry Team

- Team Mechanical Lead for 2022
- Mechanical Lead for Team Rocket 'Unity'
- Took part in the construction of the High-powered, Carbon fiber, team rocket 'Venom'.
- Constructed and launched Low to High Powered Rockets.
- Constructed a prototype Rocket display stand.

Engineers without Borders program

- Designed a windmill pump & water battery to provide a sustainable electrical power solution to the Mayukwayukwa refugee settlement with simple maintenance and built from nearby resources.

Warman Competition

- As a team leader, designed and built a prototype robot to collect, hold and transfer vessels.
- Made use of Laser CNC as well as traditional hand manufacturing methods.
- Programming an Arduino to control a stepper motor for a winch system.

Transferable Skills

Communication	Communication within the workplace in a professional manner proving patrons and staff with detailed answers to questions or issues.
Teamwork	Working within teams on Engineering without borders projects, university teams and workplace environments. Setting up open communication channels where teammates are always on the same page and workload is distributed evenly and towards each individual's strength.
Problem Solving	Using Methods and processes in the analysis of an issue. Fine turning the best solution for known problems and using ingenuity to solve new ones.

References

Available Upon Request