

# CODEY TRAVERS

E-mail: [mechanicalcodey@hotmail.com](mailto:mechanicalcodey@hotmail.com)

LinkedIn: <https://www.linkedin.com/in/codeytravers>

---

## PROFILE STATEMENT

- Mechanical, Robotics, and Mechatronics Engineer with a solid foundation in applied research, automation systems, and advanced mechanical design. Experienced in R&D environments across industry and academia, with expertise in prototyping, testing, and the development of robotic and automation systems.
- 

## KEY PROJECTS

- **Magnetorheological Damper Prototype** - Adaptive suspension system – (Hons UWS, PhD UTS)
  - **Mobile Robot Trolley** – Light influenced pedestrian tracking using leg detection ML – (PhD UTS)
  - **2-DOF Tendon-Driven Gripper** – (robotic 2FG - MPhil UOW)
  - **Injection Moulding Hopper Slide** (load/unload automation, cavity dies & insert changes – Pierlite)
  - **Unwind Stand** (industrial printing application – (LSW Group / ConverQuip)
  - **Structural Testing** (Instron machine, Bondek/truss deck, steel/concrete testing – UWS)
  - **Fabrication & Construction Projects** - (CNC of a jig for the design of tensile Coupons – UWS)
  - **Bank Automation Project** – Blue Prism robotic process automation (RPA) & testing (EY Training)
  - **Kalmar Automation** – Site work at VICTL Webb Dock & Training at Kalmar HQ, Tampere, Finland
- 

## QUALIFICATIONS

### **University of Wollongong (UOW) (2022-2025)**

*Master of Philosophy (MPhil)* – Thesis Submitted

Thesis: *A New 2-DOF Dual-Double Tendon Two-Finger Gripper: Design, Analysis, and Performance Evaluation*

Research Group: Applied Mechatronics and Biomedical Engineering Research (AMBER)

### **University of Technology Sydney (UTS) (2013-2016)**

*Master of Engineering Management (MEM)* – Distinction Average

Major: Engineering Management ('The Engineers MBA').

Award: UTS Accomplish Award 2016

### **University of Western Sydney (UWS) (2005-2011)**

*Bachelor of Engineering (Hons)- Robotics and Mechatronics*

Honours Thesis: *Design and Analysis of an Intelligent Damper*

Graduated with Honours Class II – Division 1

### **TAFE NSW – Sydney Institute Ultimo**

*Diploma of Engineering (Mechanical)* (2003-2005)

*Certificate III in Mechanical Engineering (Toolmaking)* (1999-2002)

---

---

## CAREER HISTORY

**Company: Essence Group (2002) – Full time**

**Position: Project Engineer**

- Led the design, planning, and execution of multiple engineering projects, ensuring compliance with budget and timeline constraints.
- Coordinated cross-functional teams, including designers, technicians, and contractors, to deliver high-quality solutions.
- Developed project specifications and managed the implementation of mechanical systems, ensuring adherence to safety and quality standards.

**Company: Commonwealth Bank (2017) - Contract**

**Position: Robotics Developer – Home Loan Switches & Splits Project**

- Contributed to automation initiatives within the Automation and Robotics Operations Centre (AROC) using Blue Prism Robotic Process Automation
- Developed, evaluated, and deployed scripts for streamlining internal banking processes.
- Collaborated with business units to identify and automate high-volume, rules-based tasks.
- Gained experience in digital transformation and enterprise-level automation workflows.

**Company: Kalmar Australia – Cargotec Corporation (2015-2016) - Fulltime**

**Position: Automation Engineer**

- Manual & Automated Testing of Software
- Writing business requirements, writing user test cases, executing test cases & reporting/tracking bugs & product enhancements with JIRA & Salesforce.
- Personally Installed Python packages & Robot Framework (RIDE) & configuration of Jenkins for Master/Slave on servers for automated testing of software.
- Commissioning of various technologies at Victoria International container Terminal (VICT) including but not limited to: WAGO I/O, PLC's, Sensors & Laser Measurement systems, Network Configuration.
- Network architecture, configuration & Systems IT: Windows & Linux O/S's & Servers, Profibus, Profinet, PLC's, XML, HTML, Python, Selenium, Java, C++, Visual Basic, XenCentre & XenServer, VMware, Virtual machines, GIT, SVN, JIRA, ALM, Confluence, Batch Script, MSSQL Databases.
- Analysis and problem solving of both hardware & software.
- Root Cause analysis, troubleshooting & problem solving.

**Company: Copal Engineering (2013) - Contract**

**Position: Project Engineer**

- Design & Production planning of Structural Projects.
- Project Quality & Operations Management.
- ISO QMS 9001 Compliance for Leighton's Contract.
- Ichthys LNG Project – Structural Design & Fabrication; and
- Kane Synnex Australia Automated Logistics Centre Project.

**Company: The University of Technology, Sydney (UTS) (2011-2013) – Full time**

**Position: PhD Student & Laboratory Assistant (Contract Role)**

- Design & Manufacture of an intelligent Magnetorheological (MR) Damper
- Research of mechanical devices, structural dynamics & control systems.
- Management of Laboratory operations for other PhD projects.
- Finite Element Analysis (FEA) – both mechanical & electrical; and
- SolidWorks CAD Design, Modelling and Analysis of applied Loads, CNC manufacture of steel, concrete pouring & composite structures.

**Company: Australian Defence Force, Australian Army Reserve (2008-2010)**

**Position: Fitter Armament – (Qualified Entrant) – Part time**

- Fully enlisted into the Australian Army Reserve as a Qualified Entrant (QE) in the Corps of the Royal Australian Electrical and Mechanical Engineers (RAEME), based on prior mechanical trade qualifications. Engaged in the technical stream with exposure to:
- Inspection, maintenance, and repair of military weapon systems including small arms (F88 Austeyr, F89 Minimi), artillery, and components of ASLAV/Bushmaster vehicles.
- Mechanical systems used in defence applications such as marine and plant equipment.
- Workshop practices, technical procedures, and safety protocols

**Company: The University of Western Sydney (UWS) (2005-2006) –Contract**

**Position: Technical Engineering Officer (Contract Role)**

- CAD Design, manufacture, and research of mechanical and civil structures; Coupon & Reo Tensile Testing (stress and fatigue) analysis of steel, Compression testing of concrete and testing of scaffolding, TRUSSDEK / BONDEK testing for industry (OneSteel and BlueScope).
- Hydraulic actuators press operation, CNC machining, MIG, ARC & TIG welding, Plasma / Oxy thermal cutting; Consultant to PhD students and Industry; and Management of the day-to-day activities of the Laboratory.

---

## TECHNICAL SPECIALTIES

- **CAD & Design:** Autodesk Inventor, SolidWorks, Fusion 360, AutoCAD
  - **Programming & Automation:** Python, MATLAB, C++, Blue Prism, Machine Learning (scikit-learn)
  - **Simulation & Analysis:** FEA (ANSYS, Fusion), MATLAB, Simulink, force/stress/vibration modelling
  - **Systems & Tools:** Git, Jenkins, JIRA, MS SQL, Linux/Windows, Robot Framework (RIDE) & ROS
  - **Prototyping & Testing:** 3D printing, CNC, CAM, QA/Root Cause Analysis, Manual Fabrication
  - **Other:** Web/cloud development (Adobe Business Catalyst Partner), HTML, CSS & E-commerce
- 

## PROFESSIONAL MEMBERSHIPS

- The Institution of Engineers Australia, Professional Engineer (MIEAust) – Current Member
  - The American Society of Mechanical Engineers (ASME) – Grad Student Member
  - The Institute of Electrical and Electronics Engineers (IEEE) – Grad Student Member
- 

## PUBLICATIONS

**Travers-Grantham, C.** 2010, 'Design and Analysis of an Intelligent Damper', paper presented to the *UWS Research Futures Postgraduate Forum 2010*, Lecture Theatre BBG13 Penrith (Werrington South Site), Monday 7 June 2010 - Wednesday 9 June 2010.

**Travers-Grantham, C.** 2010, 'Design and Analysis of an Intelligent Damper', paper presented to the *UWS School of Engineering Honours Conference*, UWS Penrith (Kingswood campus), 23 September 2010.

**Travers, C.** (2025). *A New 2-DOF Dual-Double Tendon Two-Finger Gripper: Design, Analysis, and Performance Evaluation*. Master of Philosophy Thesis, University of Wollongong. Thesis submitted April 2025, under examination.

---

## LICENCES & CERTIFICATIONS

- **Driver Licences** – Heavy Vehicle (HR – truck), Full Class C (NSW), General Boat Licence
  - **High Risk Work Licences** – Forklift (LF), Caterpillar 740 ADT (40T articulated dump truck)
  - **Construction Safety** – White Card, Blue Card (Toll Transport & Distribution)
  - **Hospitality Compliance** – RSA & RCG
  - **First Aid** – Senior First Aid (SFA)
  - **Trade & Defence** – RAEME Qualified Entrant (Fitter Armament – CFN Assessment)
  - **Working with Children Check** – WWC0280177V (*expired 18/06/2019*)
  - **Marine Security Identification Card (MSIC)** – 5-year (*expired*)
  - **Professional Training** – AGILE Certified Professional, RPA Blue Prism Foundation (EY), Automation Training (Tampere, Finland)
- 

## REFERENCES - Provided upon request.