

GWYLM JOHNSTONE

Portfolio

GwylimJohnstone.com

Work Experience

Lead Designer, Excavator Driver, Site Forman and Carpenter, Tippa's Creek, New York, February 2021 – Present

- Development of raw land purchased in late 2019 into an off grid tiny cabin
- Project was completed without sub-contractors – everything including site survey, land clearing, road construction, excavation, pouring foundations, framing, roofing, cladding, installing windows was done “in house”
- Has its own solar power plant and water purification system, air conditioning, heating, full bathroom
- More details of the journey [can be found here](#) on our Instagram

Technical Lead/Senior Mechanical Engineer, Hypersonic, New York, July 2013 – February 2021

- Coordinated and carried out on-site installations
- Designed and deployed custom motion control systems
- Led design concepts internally and with clients
- Fabricated, assembled and tested production parts/assemblies
- Drafted/detailed CAD assemblies from prototypes through to production
- Carried out fatigue analysis and testing
- Sourced parts from local and international vendors

Design Engineer & Special Effects Tech, Mad Max: Fury Road, Namibia/ Australia, Dec 2012 – Aug 2013

- Designed and fabricated stunt rigs such as jump ramps, air cannons and pneumatic systems using Solidworks and Excel
- Controlled stunt rigs on set during shooting
- Managed data acquisition and analysis of g-force data in stunt vehicles during testing and shooting
- Assisted in the installation and operation on set of high-pressure nitrogen systems in vehicle flip
- Modified hydraulic pumps for radio control use with flaming stunt vehicles
- Assembled closed-loop feedback electrohydraulic systems
- Supported Senior Technicians with field-testing and on-set operation of rigs during shooting
- Coordinated a 6-person workforce of local labor

Other Notable Experience:

- Instructor at 3rd Ward co-working space (machining)
- CAD monkey and Mechanical Technician for Amorphic Robot Works

Education

Bachelor of Engineering Honors (Mechanical), University of Sydney (2012)

Sydney, Australia

- Team Leader for formula SAE racecar team

Hardware Skills

Industrial motion control - Animatics Smartmotors, Embedded Microcontroller Systems architecture, Manual lathe turning, Manual milling, TIG Welding, MIG Welding, Best practices for power and data electronics - design and implementation

Software Skills

Solidworks, CNC programming- HSM Works for Solidworks, Solidworks FEA, Processing JS, Arduino IDE, Moog Animatics Smart Motor, simple PCB design, creating shop drawings