

BROCK COOPER

MECHATRONICS ENGINEER - CONTRACTOR CONSULTANT

CONTACTS

📍 Ben Lomond Road, Minto,
2566, Australia

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☎ 0487455477

SKILLS

SolidWorks 2013-2020

Fusion 360

Creo Parametric 5.0

Blender

Simplify 3D

Prusa Slicer

KiCAD

Latex

Python

C++ (Arduino)

MATLAB R2019a

Microsoft Office

MS Project

Vectric Aspire

EnRoute 6

MACH 3

Cypcut

Robot Operating System (ROS)

Adobe Premiere Pro

DRIVING LICENSE

DRIVING LICENSE

CATEGORY

CLASS C

ABOUT ME

Results-orientated, quality focused professional. I am an ambitious 24-year-old with a passion for mechanical and electrical design. Recently completed studying a bachelor of Mechatronics Engineering at the University of Wollongong. I am excited to gain the opportunity to develop and further my skills and knowledge in the engineering field. Seeking to use my previous developed skills in a new team focussed environment learning from those around me allowing me to further my understanding.

WORK EXPERIENCE

CAD DRAFTSMAN CONSULTANT

Contractor (AuSTATE Services), Minto

DEC - 2021

PRESENT

- Comprises of 2D proposal drawings alongside designing engineering tools and excel calculators for mass distribution for clientele agreements.
- Design of 3D semi-trailer and rigid-body models paired with 2D manufacturing drawings.
- Staff management and uphold safety standards and quality assurance.
- Fibre optic laser technician and operator, and oversee parts for laser cutting manufacturing.
- TIG Welding of custom tools and jigs for manufacturing

MECHATRONICS CONTRACTOR

FLIGHT Technologies, Wollongong

JUN - 2021

SEP - 2021

- Designed and manufactured a cable camera system using 3D printing and fibre optic laser cutting.
- Designed printed circuit board (PCB) using KiCAD for power distribution and signal control through for various applications

3D Printer Operator/Technician

Criterion Solutions, ACT

FEB - 2021

JUN - 2021

- Setup and managed printers for printing experimental drones for military purposes
- Looked after machine maintenance to ensure the continuous round the clock 24hr operation of 3D printers with minimal machine downtime
- Worked with military clientele and dealt with non-disclosure agreement (NDA) for military application

ACHIEVEMENTS

Alan Broady Memorial Prize - 2016
Sout32 Illawarra Coal Sustainability
HSC Shape Exhibition - 2016

REFERENCES

PETER LJUBENKOV

PML Appliance Repair

M: (+61)

BEN VAN MAGILL

PhD Student, Lab Manager Sydney University

M: (+61) 0479 014 731

E: bvan7841@uni.sydney.edu.au

JOHNATHAN CLARK

FLIGHT Technologies

M: (+61) 0484 937 999

AERONAUTICAL INTERNSHIP

University of Sydney, Camperdown

DEC - 2019

FEB - 2020

- Development of rapid manufactured 3D printed unmanned aerial vehicles (UAV) for potential military personnel.
- Using CAD modelling techniques to develop a wing that can be printed in one piece with a fully functional aileron (moving - surface), achieved through multi-material printing.
- Responsible for implementing a fully automated slicer and print job management setup, allowing for models to be sliced and automatically uploaded to the printer.
- Manufacturing and setting up wind tunnel models and apparatus.

UAV TECHNICIAN

Rise Above, Smeaton Grange

FEB - 2019

JAN - 2020

- Designed and manufactured custom drone solutions using DJI and custom multirotor platforms.
- Performed installations of multispectral cameras using custom camera mounts through the use of 3D printed parts and CNC machined carbon fibre plates.
- Working closely with the government clientele to develop custom payload solutions for detection systems, search and rescue and payload release mechanisms.

COMPUTER NUMERICAL CONTROL (CNC) MACHINE OPERATOR

Skope Group Comm-Klad, Campbelltown

FEB - 2018

DEC - 2019

- Operating a 3 axis CNC flatbed router with a 7 tool automatic tool changer.
- Handling of high end material, cutting and grooving aluminum composite panels (ACM), cutting acrylic faces, returns and backs for fabrication, cutting and milling aluminium sheets from 3-15mm.

EDUCATION

BACHELOR OF MECHATRONICS ENGINEERING

University Of Wollongong, Northfields Ave

JUL - 2022

- Honours Class II, Division I

HIGHER SCHOOL CERTIFICATE

St. Gregory's College, Campbelltown

SEP - 2016

STATEMENT OF ATTAINMENT

TAFE NSW - Campbelltown

MAR - 2016

- Statement of Attainment CAD design and manufacturing