

ROBERT HEATON

CORE COMPETENCE

Ambitious mechatronics student with a passion for electronic and embedded systems design, with experience with control systems, PCB design and power electronics. Practically minded and always looking for methods to automate repetitive processes through the likes of MATLAB scripts. Extensive experience within programming, with technical competence in at least 3 programming languages. Strengths include project management, project development, electronic design, team working, public speaking, critical decision making, and adaptability to dynamic working environments.

INDUSTRIAL EXPERIENCE

Victrex PLC – Laboratory Technician Assistant

July 7th 2014 – July 11th 2014

Victrex is a private chemical production company aiming to produce “PEEK” (Poly-ether-ether-ketone) and is a descendant of the ICI industrial corporation. My work experience involved shadowing and assisting the lab technicians with chemical reactions, product testing, and review and analysis of data.

- I was given the responsibility to operate some specialized scientific equipment within the field, including a scanning electron microscope and the thermal gravimetric analyser. This involved processing data and understanding real-world results and why they do not always coincide with theory.
- Observed the research and development team experiment with the production process and got the opportunity to examine the control systems involved in a small system, and how that system must present itself to an end user that may not have control systems experience but must still be able to interface with it.

Overall, I was able to experience the stress and pressure of working in the scientific environment whilst learning about the variety of aspects that science can offer.

EDUCATION

2017 – 2021 University of Manchester, MEng Mechatronics

- Relevant Modules: Sensors and Instrumentation, Mechatronic Analysis and Design, Robotics and Autonomous Systems, Digital Systems Design 1 & 2, Data Networking, Engineering Management, Embedded Systems Project, Measurements and Analytical Software, Signals and Systems, 3rd Year Independent Project, 4th Year Team Project, Process Control, System Identification, High Speed Digital and Mixed Signal Design (Circuit Design), and Control Systems.
- On track for a First. Complete list of modules and grades available upon request.

2015 – 2017 Cardinal Newman College

- A level: Physics (A), Mathematics (A), Chemistry (A), Extended Project Qualification (A*)
- AS level: Business Studies (A), Critical Thinking (B)
- HE+ Scheme

2010 – 2015 Fleetwood High School

- 9 GCSEs: 4 A* including Physics and Mathematics, 4 A including English, and 1 B
- 2 BTECs: 2 Distinction* including ICT
- Deputy Head Boy, Prefect and Student Council Member

ACCOMPLISHMENTS

Young Scientist/Engineer Award 2013

- Awarded by the Blackpool and Fylde college in partnership with BAE systems.

Bronze Crest Award

- Awarded by the British Science Association Program.

National Citizenship Service 2015

- 2-week residential involving team building activities with strangers and a 1-week local charity project.

Villiers Park 2016

- 1-week academic residential for high achieving chemistry students.

Year 11 Academic Group 2015

- Holocaust Memorial Day: 1-week of giving a 15 presentation to each year group of the school on the history of genocide and the importance of remembering the holocaust.
- Year 8 Confidence Course: Planned and ran team building exercises in a group to help select year 8 students develop core skills.
- Public Debate: Separated into 2 teams and had to argue for a pre-allocated side of a debate in front of school faculty, who would rate our performance at the end.

INTERESTS

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|-----------------|-----------------------|-------------------|
| ▪ History | ▪ Electronic Projects | ▪ PC Building |
| ▪ Chess | ▪ Poetry | ▪ DIY/Woodworking |
| ▪ Rock Climbing | ▪ Jigsaw Puzzles | ▪ Video Editing |

TECHNICAL SKILLS**Programming and Descriptive Languages**

- Program in C/C++ (Strong, familiar with ARM Low Layer), LabView (Moderate), Python (Learning), HTML/CSS (Learning), and Machine Code (Limited experience with ARM ISA).
- Descriptive languages include VHDL (Medium) and MATLAB scripts (Medium/Learning).

Software

- Experience with MATLAB (Moderate), Keil μ Vision IDE (Strong), Simulink (Limited), Altium (Strong), Mbed OS and IDE (Strong), MapleSim (Limited), and National Instruments software.

Projects

- The Embedded Systems Project is a second-year group project completed during year 2 of study:
 - Led a group of 4 other engineers on varying degree streams to design an autonomous line-following buggy. Leadership involved organising meetings, deadlines, quality of work and budgeting.
 - Designed the sensing system using Altium, from concept to PCB design and population.

FURTHER EMPLOYMENT EXPERIENCE**2015 – Sales Support Staff – Next PLC**

- Christmas sales support duties involved serving customers, stocking of goods and maintaining the shop floor.
- Helped to further time management, team-coordination skills and customer service skills. First experience in a fast-paced environment with pressure to perform.

REFERENCES

Available on request.