Thomas Ward | Design Engineer

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High achieving, third year student at the Dyson School of Design Engineering at Imperial College London. A curious, creative, problem solver with an inherent interest in finding solutions for the environmental and social challenges we face. Has developed strong project management skills, works well in teams and has a breadth of knowledge across mathematics, engineering, computer science and electronics. Aims to leverage this expertise to make the world work with more compassion and intelligence.

Education

Dyson School of Design Engineering, Imperial College London - MEng   (Currently 3rd Year) September 2021 - July 2025
- Achieving at First Class Honours. Placed on the Dean's List after finishing in the top 10% of my cohort.
- Relevant Modules: Computer Science, Mathematics, Mechanics, Electronics, CAD, Mechatronics, Thermodynamics, Human Centred Design Engineering, Materials Science, Sustainable Design Engineering, Data Science and Finite Element Analysis.
- Projects: PlusHue - Designed and prototyped a compact coaster with integrated NFC technology and PIR sensors to help victims of drink spiking and allow users to navigate large venues with prototyped app.
- Gizmo: Designed a robotic hand capable of playing a game of rock, paper, scissors against a user and tracking the score using computer vision.
- DX-4: A wearable knee device that inspires young athletes recovering from ACL surgery to reach full range of motion, minimizing their chances of re-injury.

A- Level - A*AA in Design & Technology, Physics and Maths respectively   2020
GCSE - 3x grade 9, 8x A*s   2018

Experience

ICOE Technologies - London   2023
- Worked part time whilst balancing University commitments over the summer term.
- Start-up providing emergency support for health and safety.
- Conducted research to inform decision making on target markets and product development.

Mercedes AMG Petronas F1 team - Brackley   2018
- Engineering work experience within the gearbox department in the run up to the 2018 Silverstone Grand Prix.
- Tasked with determining extent of mechanical wear within the dog clutch as well as helping with dyno testing.

South East Coast International School - Tanzania   2018 - Present
- Taught classes to children aged 11-13 in mathematics, physics, chemistry and robotics.
- Led a class project in robotics using Lego Mindstorms where students were able to build and program a robot capable of manoeuvering a path using colour sensors.
- Raised over £20,000 through various fundraising efforts as well as multiple exhibitions of my own photography.
- Money raised contributed towards school utilities as well as the sponsorship of a young boy's education.
- Worked with charity Ace Africa in organisation of annual Gala dinner.

Sixth form Robotics team   2019
- Oversaw the design and development of a soft robotics arm using rapid prototyping techniques such as 3D printing and Laser cutting. Modelled using Fusion 360.
- Project was to compete in the Rover Ruckus competition however was abandonned due to COVID-19

Arbour Vale School - Slough   September 2018 - April 2019
- Assistant teacher in mathematics for children with special needs, visiting the school weekly.
- Working closely with individual children and carers to create a safe and happy learning environment.

Skills

Code	Python, HTML, CSS, Node.js, MATLAB, Git, C++.
Design	Fusion 360, Keyshot, Adobe Suite (Id, Ps, Ai, Lr), Miro, Blender, Figma.
Prototyping	ESP32, 3D printing, laser-cutting, metal & woodworking, mechatronics, Arduino.
Photography	Professional experience in product, event and portrait photography.

Achievements

2019	Secretary of Design Engineering Society, Sixth form.
2019	Head of Design, Lexicon Magazine
2020-21	Selected on Darren Lehmann Cricket Academy to pursue career during gap year