### PLEASE SEE WEBSITE/PORTFOLIO FOR FURTHER DETAIL ON PROJECTS AND EXPERIENCE

# LOUIS FLINN

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# **Biography:**

Having recently completed my MSc in Human and Biological Robotics, I am eager to apply my skills and broaden my knowledge by tackling challenging problems in robotics.

### **EDUCATION**

Imperial College London

Oct 2023 - Sept 2024

MSc Human and Biological Robotics

Grade: (Provisional) Distinction

Thesis: 'A Low Cost Quasi Direct Drive Gripper for Human-in-the-Loop Dexterous Manipulation'

University of Manchester

Sept 2020 - June 2023

BEng Mechatronic Engineering Grade: First Class Honours

Brampton College

Jan 2018 - June 2019

A Level Results: Physics - A\*, Maths - B, Philosophy - B

Haberdashers' Boys School Sept 2008 - Jan 2018

GCSE Results: 4 A\*'s (Physics, Chemistry, Biology, English Literature), 5 A's, 1 B

#### WORK EXPERIENCE

#### LA Vending

Mechatronics and Legal Consultant

July 2023 - Jan 2024

Assessed engineering design failures, suggested appropriate design changes and drafted legal documents for a refund claim on faulty vending machines that were sold to LA Vending. Recouped £65,000 for the company that would have otherwise been lost.

The RSA Group July - August 2019

Research Assistant

Evaluated candidate suitability and created shortlists for bio-pharmaceutical companies seeking new talent. Refining communication skills and gaining a commercial awareness of the life sciences industry and roles within.

TWG Events August - August 2021

Bar Staff

Delivered exceptional customer service in a high-intensity environment, balancing customer and company interests.

VSP May - June 2017

Work Experience Program

Participated in Civil Engineering tasks, focusing on sustainable solutions in design, water and waste management, lighting and project competitions.

### EXTRACURRICULAR AND LEADERSHIP EXPERIENCE

## **Electronics and Firmware Manager**

Jan - March 2024

Manual to Electric Wheelchair Conversion Kit: Repurposed hoverboard motors and batteries and added custom motor drivers, control and firmware to create a functional electric conversion kit for a manual wheelchair, reducing the cost compared to similar products by 90%

Hardware Manager Sept 2021 - May 2022

Autonomous Line Sensing Buggy: Utilised SolidWorks for chassis design and materials testing. Carried out gearbox selection and motor characterisation. Construction of the buggy. PCB and component testing and soldering. Equitable delegation of tasks to the members I oversaw and making modifications in response to testing whilst time pressured. This experience improved my leadership skills and enforced the importance of prioritising the team over the individual. Leading my team to 2nd place out of 55 groups.

#### Skills:

CAD software such as SolidWorks, Fusion360 and Shapr3D. Simulation and data processing using MATLAB/Simulink. Control system and embedded system programming in C and C++. Hands on experience with electronics, including circuit design, prototyping and testing. Python, MuJoCo, HTML, Reinforcement Learning. Additive and subtractive manufacturing.

## Other:

Physics Olympiad, Maths Challenge Gold Medalist, Team Sports (Rugby team captain, hockey and waterpolo teams), Individual Sports (National level in swimming, cross country and athletics). Cancer research volunteering.