Tsang Lok Kiu Locke

Summary

A-level student with a foundation in **mechanical engineering**, **robotics** and **programming** — Developing a **personal website** and **LNN** programming, achieving **gait cycle** in a controlled environment with PyBullet. Aiming to develop humanoid robots replicating human motion to bridge biomechanics research and assistive robotics. **Proficient in C++, C and Python** with hands-on experience in **Solid Edge CAD** designs and **robotic modelling** via designing a thigh-to-foot assembly. **Led** the **STEM Ambassador club**. Competitive fencing and 5k runner — cultivated perseverance and a zero-excuses, no-complaints mindset.

Qualifications

Cardiff Sixth Form College, Cambridge
(2024 – 2026)
A-levels / T-levels / equivalent**: (AS Levels)**
- **Physics, CS, Maths** – A
- **EPQ -**

ESAT – X/9 | SAT – 1450
The International School, D'Overbroecks, Oxford
(2022 – 2024)
GCSEs or equivalent**:**
- 6 A*, 2A (**Triple science, CS, Maths** – A*)

Work Experience and Educational Visits

InvestIN Engineer Summer Program (Level 3 UCAS Work Experience)
(13th July 2025)
- *Gained **hands-on experience** as an engineer (projects + presentation each day)*
- ***Networked** with professionals (LinkedIn Accounts)*
- *Lectured on **electrical engineering** and **robotics** (additional 5+ engineering fields)*

Virtual work experience, Young Computer Scientist & Engineer Weekend Programme (Online)
(3rd November 2024) | (10th November 2024)
- *Explore **circuit design**, **system integration** and **embedded programming** (project & lecture)*
- *Focused on **sustainable** practices and problem solving (project based Python coding)*

Factory of MINI & UKAEA Visit, (Oxford England)
(19th September 2024) | (1st November 2024)
- *Viewed the internals of car factory, **robotic inserters** and **quality-detection systems** in car manufacturing*
- *Visited the core of the fusion plant and **RACE robotic**s advancement in hazardous environment*

Super Curricular Activities

Engineering club:
Self-balancing two wheeled **robot** (Arduino)
Robotic club:
Self-driving car with **obstacle recognition** (Arduino)
STEM Ambassador club (Leader):
Ran **STEM outreach** workshops with local schools

Personal Projects (Ongoing)
- **Personal website**: locketsang.org
- **Liquid Neural Network** simulation (PyTorch & PyBullet)

Key skills

- **C++. Python, C** and web-dev language
- Windows and **Linux** systems
- Solid Edge student edition **(CAD software)**
- **Group project management** and **Leadership (STEM Ambassador club/ EPQ)**

Honor and Award

- **Model United Nations Day (2022): Best Resolution Candidate**
- **Intermediate Mathematical Challenge (2024): Gold Certificate**
- Duke Of Edinburgh: Bronze Award
- London Region Youth Championship U18 Boys Epee: 2nd Runner-up

Additional Links

- **LinkedIn Account: https://www.linkedin.com/in/lok-kiu-locke-tsang-b51a94325/**
- GitHub Account: https://github.com/Locke-T