GEORGE OTIENO

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SUMMARY

Aspiring Mechatronics Engineer with a strong foundation in automation, control systems, and embedded systems. Skilled in CAD design, electromechanical systems, machining processes, and prototyping. Proficient in engineering software including SolidWorks, Inventor, Fusion 360, MATLAB, Proteus, and KiCad. Knowledgeable in PLC and Python programming, with hands-on industrial experience in machining and manufacturing environments.

WORK EXPERIENCE

Attachment Trainee – Numerical Machining Complex **March 2025 – June 2025**

- Assisted in CNC and conventional machining operations including turning, milling, drilling, and grinding.
- Interpreted engineering drawings and prepared materials for machining processes.
- Operated and observed CNC machines under supervision, including setup and basic parameter adjustments.
- Performed precision measurements using vernier calipers, micrometers, and dial gauges.
- Participated in preventive maintenance and safety procedures in the workshop.
- Learned basic CAD/CAM workflow for part design and machining preparation.

Student Engineer, Dedan Kimathi University of Technology **September 2022 – Present**

- Competed in the 2024 Robotics Dojo competition, integrating a 2D LiDAR scanner for area mapping and path optimization.
- Designed and developed embedded systems for an automated drone using Python and KiCad for PCB design.
- Collaborated in a team to prototype a self-balancing robot using PID control systems.
- Applied sensor integration and troubleshooting skills to enhance a robotic arm's precision.

EDUCATION

Bachelor of Science in Mechatronics Engineering **Sep 2022 – Present**
Dedan Kimathi University of Technology
Expected Graduation: September 2027

Relevant Coursework: Robotics and Automation, Control Systems, Embedded Systems, Industrial Automation, CAD for Mechatronics,

Sensors and Actuators, Pneumatics and Hydraulics

Projects:

- Path-finding robot using LiDAR mapping and sensor fusion.
- Drone control system integrating microcontroller programming and motion control.
- Bionic arm prototype model using mechanical actuators and string tendons

ADDITIONAL INFORMATION

Technical Skills:

- **CAD Design:** SolidWorks, Inventor, Fusion 360
- **Embedded Systems:** Proteus, KiCad, Arduino, Raspberry Pi
- **Programming:** Python, C/C++, JavaScript
- **Simulation and Analysis:** MATLAB, SCADA, PID Control
- **Industrial Automation:** Siemens PLC Programming

Languages: English, Kiswahili

Certifications: SolidWorks Associate

Activities: Member of CDED Mechatronics Club, organizing robotics workshops and seminars

Hobbies: Soccer, Prototyping rockets