

CURRICULUM VITAE

CONTACT

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LINKEDIN
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SKILLS

- SolidWorks and Autodesk inventor design and simulation
- Traditional machining (CNC milling, lathe, drilling, grinding, welding, forging)
- Advanced machining (FFF and SLA printing, laser machining, plasma cutting, wire EDM)
- Electrical and electronic design, fabrication, testing and troubleshooting
- Product development (design, implementation and testing)

MARTIN KINYUA

PROFESSIONAL SUMMARY

Martin is an innovative and results-driven engineer dedicated to advancing technology across the nation and continent by delivering cutting-edge engineering solutions. With a Bachelor's degree in Mechatronic Engineering from JKUAT, I have a solid foundation in mechanical design, electrical systems, automation, and software development. Additionally, my leadership roles at JKUAT honed my abilities in strategic decision-making, effective communication, and collaborative problem-solving.

WORK EXPERIENCE

March 2024 – Present

Embedded Engineer Intern [ZIDI solar Africa]

- BMS subsystems integration and modifications on battery packs. PCB design, implementation and optimization. 3D printing of components. Performance testing and root cause analysis for errors detected in circuits and PCBs. Programming ME32G chips in the embedded systems circuits.

May 2024 – January 2025

Engineering Project assistant [University Final Year project]

- I aided in research, design and implementation of an automated wind tunnel test section to allow real time flow states variation for rockets' parachute models testing.
- Successfully integrated data collection system to analysis system via Python language for real time analysis and visualization.

January 2024 – April 2024

Mechatronic Engineer intern [NAKUJA PROJECT, JAPAN COOPERATION AGENCY (JICA)]

- Designed and fabricated a programmable machine for aerodynamic parachute models testing in a wind tunnel, utilizing ANSYS, Proteus, EASYEDA, and SolidWorks for design and simulation.
- Analyzed and optimized the software and electrical circuit design for solid rocket engine development, implementing ESP32 and Arduino Mega microcontrollers.
- Contributed to the design, fabrication, and testing of four solid rocket engines, successfully launched in collaboration with the Kenya Space Agency.

February 2023 – March 2023

Research Intern [JKUAT]

- Assisted in the research and design of an embedded smart wearable stress detection device, focusing on hardware and system integration.
- Worked on additive manufacturing and CNC machining projects, from design in SolidWorks to fabrication using SolidWorks CAM.

- C/C++, Python, Assembly, CSS, HTML, MYSQL and PLC programming
- Proteus, EasyEDA design and development
- Microsoft office package
- Teamwork collaboration skills
- Good communication skills over various platforms
- Proven leadership skills

REFERENCES

1. Dr. Wamai Mwangi
Executive member, lecturer
JKUAT Mechatronics
department
P.O BOX 62000-00200
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+254706643610
2. Dr. Shohei Aoki
Chief program head
NAKUJA, JICA
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3. Dr. Daniel Omondi
Manager Engineering
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January 2022 – April 2022

Mechatronic Engineering Attachee [JKUAT]

- Gained hands on experience in various workshops, participating in casting, Sheetmetal fabrication, PCB fabrication and machining processes, including lathe turning, milling, gear hobbing and welding

January 2021 – April 2021

Store Executive [SUNKING LIMITED]

- Handled store management responsibilities, including stock management, daily and weekly reporting,
- Managed stock receipt and issuance using POS system to ensure accurate inventory control

EDUCATION AND TRAINING

September 2019 – June 2025

Bachelor of Science in Mechatronic Engineering

Jomo Kenyatta University of Agriculture and Technology

Undertook a bachelor of science in mechatronic Engineering (5-year program), attaining Second class honors upper division acquiring expertise in:

- Mechanical fabrication using various materials and machinery
- Circuit design and implementation
- Embedded systems development
- Software programming in C/C++ and assembly languages
- Quality control in industrial setup

February 2024 – August 2024

Software programming

W3 Schools Academy

- Studied Python, MySQL, HTML, and CSS applying these skills in various projects involving database management, web development and software implementation.

January 2015 – November 2018

High school graduate

Chogoria Boys High School

- Completed high school education, attaining A minus grade, developing key skills including leadership as a peer counselor and proficiency in Microsoft Office Suite (Word, Excel, Access, PowerPoint)