

## Contact

0713958070 (Work)  
mbugua.alex2017@students.jkuat.ac.ke

[www.linkedin.com/in/mwaura-mbugua](https://www.linkedin.com/in/mwaura-mbugua) (LinkedIn)  
[www.mbumwa.com](http://www.mbumwa.com) (Blog)

## Top Skills

Python (Programming Language)  
C (Programming Language)  
HTML

## Languages

English (Native or Bilingual)  
Kikuyu (Native or Bilingual)  
Swahili (Native or Bilingual)

## Certifications

AI Web Application Workshop

# Mwaura Mbugua

Electrical and Electronic Engineer || Software Engineer  
Nairobi County, Kenya

## Summary

Electrical and Electronic Engineer | Software Engineer

I'm am passionate about building things.

I have a software Engineering degree from Alx Africa.

I have skills in back-end development of web applications, having worked with the Go programming language, node and Django.

I also have skills in robotics and embedded systems development.

I'm currently open to opportunities in Electrical and Electronic Engineering, Web, and embedded systems development.

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## Experience

mbumwa  
Software Engineer  
January 2021 - Present (3 years 7 months)  
Kenya

Work with us and your website will definitely stand out.

Check out my portfolio

We build beautiful, well designed, modern and fully mobile responsive websites.

Robotics Dojo  
Robotics Engineering Intern  
June 2023 - July 2023 (2 months)  
Kenya

I have worked on the following:

1. Designed and build a mobile robot.

2. Implemented and tuned a PID for a line following robot in C++ using line sensors.
3. Implemented and tuned a PID for straight line movement and turning using data from an MPU6050 gyroscope and accelerometer in C++.
4. Implemented path planning for the mobile robot to perform tasks in a game field.
5. Participated in the design and building of a 4 D.O.F robotic arm.
6. Helped work out the inverse kinematics equations for a 4 DOF robotic arm.
7. Implemented inverse kinematic equations for a 4 DOF robotic arm in C++.

#### Psalmchmart Ltd.

##### Electronics and Embedded Systems Engineer

January 2022 - March 2022 (3 months)

Kenya

I was attached at Psalmchmart Ltd. as an Electronics engineer.

Activities included:

1. Design and building of an oil ATM control system.
2. Design and build of a smart aquarium control system.
3. Design of a smart home aquarium.
4. Design of a smart green house drier and control system.
5. Building oil ATMs.
6. Building milk Atms.
7. PCB Design, prototyping and soldering.

#### kplc

##### Electrical Engineer

February 2021 - April 2021 (3 months)

Kenya

I was attached to the Operations and Maintenance department (O&M).

Activities included:

1. Isolation, testing, and earthing of high voltage apparatus.
2. Inspection of both high voltage and low voltage lines.
3. Commissioning of high voltage transformers.
4. Safety procedure on electrical equipment.

5. Maintenance of both high voltage and low voltage lines.
6. Stringing of electrical overhead conductors.
7. Fault diagnosis along low voltage and high voltage lines.
8. Replacement of blown-up low voltage transformer fuses.
9. Load checks and voltage measurement on secondary transformer circuits.

### Makomboki Tea Factory

Electrical Engineer

August 2019 - September 2019 (2 months)

Kenya

I worked with KTDA for three months as an intern.

Activities included:

- Three-phase motor installation, testing, and maintenance.
- Single phase motor installation, testing, and maintenance.
- Motor rewinding.
- Maintenance of lighting system.
- Three-phase generator maintenance.
- Industrial machinery repair.
- Welding and Machining in the machine room.

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## Education

Jomo Kenyatta University of Agriculture and Technology

Bachelor's degree, Electrical and Electronics Engineering · (September 2017 - December 2022)

Alliance High School

High School Diploma · (January 2013 - December 2016)

Alx Africa

Computer Software Engineering