

Lumbi Muchui

- **Phone number:** +254 704 149008 ● **Email address:** muchuilumbi@gmail.com
- **Web:** www.linkedin.com/in/lumbi-muchui



Profile

Dedicated climate tech engineer with a strong background in innovative and sustainable solutions. Proficient in product development and trend analysis, this Mechatronics Engineer offers a commitment to fast-paced and sustainable innovation; and a desire to make a meaningful impact in the industry.



Experience

12/2024 – present
Brussels Region, Belgium

Lead Engineer Sirona Technologies

- Successfully launched the first Direct Air Capture pilot plant in Kenya, achieving an initial capacity of 500 tons of CO2 removal annually.
- Collaborated with cross-functional experts to design and develop the commercial scale version of our Direct Air Capture technologies.
- Designed and developed automation systems for the control and instrumentation of Sirona's Direct Air Capture system.

10/2024 – 02/2025
Nairobi County, Kenya

Product Lead Roam Electric

- Led the cost optimization project that reduced the production cost of the Roam Air electric motorcycle by over 50%, enabling a price drop from \$4,500 to \$2,100 and significantly increasing market accessibility and sales potential across Sub-Saharan Africa.
- Collaborated with cross-functional teams, translated research insights into impactful product features, optimized vehicle performance, and ensured seamless integration with Roam's energy and charging infrastructure.

02/2020 – 02/2025
Nairobi, Kenya

Mechatronics Engineer, Research and Development Roam Electric

- Designed and developed the Griffin project with a multidisciplinary team of engineers. The project's purpose was to develop plug-and-play electric conversion kits for Land Cruisers and Land Rover defenders.
- Designed and Developed the Roam Air, an electric motorcycle for Sub-Saharan Africa. My work revolved around the design of various sub-systems in the vehicle. From battery layout and packaging design to electrical harness design and electronics layouts and the design of various mechanical elements.

03/2022 – 10/2024
Nairobi, Kenya

Technical Product Manager Roam Electric

- Lead technical functional teams comprising over 30 engineers and designers through various product development cycles and validation testing phases to design and develop 4 automotive products.
- Defining product strategy and formulating a vision for new features through product roadmaps and timelines.



Experience

09/2018 – 02/2019

Nairobi, Kenya

Mechatronics Engineer **Kenya Pipeline Company Limited**

- Revamped the product requirements process, resulting in a 75% decrease in component manufacturing errors.
- Tasked with pipeline and tank structural integrity management while I was posted in the Corrosion Control Department.
- Participated in the commissioning of various projects in the company including the opening of newly installed oil line to the international airport in Nairobi.

06/2017 – 06/2018

Isinya, Kajiado, Kenya

Mechatronics Engineer **Kenya Electricity Transmission Company Limited**

- Installation of sub-station equipment for the Eastern Electricity Highway connecting Ethiopia, Kenya, and Tanzania at the Isinya Sub-Station.
- Performed installation, testing, and commissioning of high voltage power equipment.



Projects

Bruxelles, Belgium

Lead Engineer **Direct Air Capture - Commercial Plant**

Design and development of Sirona's containerized commercial plant.
Rated capacity of 30,000 tons per year.

Lake Elementaita, Kenya

Lead Engineer **Direct Air Capture - Pilot Plant**

Deployment of the First DAC Pilot Plant in Kenya.
Rated capacity of 500 tons of CO2 per year.

Nairobi, Kenya

Product Lead **Automotive Product Profitability**

Reduced the production costs of the Roam Air by over 60% taking the cost from USD 3500 to USD 2200.

Nairobi, Kenya

Technical Product Manager **The Roam Air Motorcycle**

The first motorcycle designed and developed in Sub-Saharan Africa
Low-Cost electric motorcycle tailored for the African use case.
2500 Units produced. Manufacturing Ongoing.

Nairobi, Kenya

Technical Product Manager **The Roam Move Bus**

First electric bus designed and developed in Sub-Saharan Africa.
Robust Electric shuttle bus aimed at the "Matatu" sector.
15+ Units produced with over 200 pre-orders.

Nairobi, Kenya

Mechatronics Engineer **Electric Conversion Kits**

Conversion kits to convert Land Cruisers and Land Rover Defenders to electric.
30 vehicles installed. (Product Retired)



09/2014 – 11/2019

Mechatronics Engineering | Bachelor's Degree
Jomo Kenyatta University of Agriculture and Technology

Student Engineering Projects

- The Design and Control of a Double Inverted Pendulum.
- The Design and Fabrication of Assistive Devices for Persons Living with Disabilities.

11/2013 – 06/2014

Programming | Diploma
Graffins College

C, C++, Visual Basic, Delphi, Project

01/2010 – 11/2013

Kenya Certificate of Secondary Education
Sunshine Secondary School

Grade A-, 78 Points