

Nomsa Mkhwanazi

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Objective

Electrical Engineering candidate with foundational knowledge of electrical systems, electronics and technical problem-solving. Seeking practical workplace experience to apply technical knowledge, develop hands-on skills in electrical installations and maintenance, and contribute to safe, efficient operations while growing professionally in the electrical trade.

Education

Roshnee Secondary School — 2020

Matric

English and Physical Science

CTU Training Solutions — 2025

N4: Electrical Engineering

CTU Training Solutions — 2026

N5: Electrical Engineering

CTU Training Solutions — 2026

Fundamentals In Project Management

Project Experience

Home Electrical Fault Detection Board

- Designed and assembled a home electrical fault detection board using standard electrical components.
- Wired electrical circuits according to schematic diagrams and safety standards.

Temperature Monitor Using LM35 Sensor

- Constructed a temperature-monitoring circuit using an LM35 temperature sensor.
- Interpreted sensor voltage outputs and converted readings into temperature values.

Servo-Controlled Robotic Arm With Gripper

- Designed and built Arduino-based robotic arm, controlling servo motors for precise movement.
- Tested and calibrated system to achieve accurate positioning and reliable gripping function.

Buzzer Alarm Circuit

- Tested circuit activation through triggering inputs and ensured proper power supply connections.
- Applied safety and troubleshooting methods to fix wiring and noise-output issues.

Smart Energy Meter Project

- Designed and developed a smart energy meter to monitor and measure electricity consumption.
- Assisted with circuit assembly, testing, calibration, and troubleshooting.

Skills

Electrical safety standards • Electrical circuit design • Electrical Installation Principles • Time management efficiency

Basic Maintenance Knowledge • Electrical testing and troubleshooting

References

Bongumusa Gumede — CTU Training Solutions

Lecturer | abeddy10@gmail.com | 0726893107

Siegfried Molutsi

Mentor (Electrical Engineer) | 0726046333

Vuyani Mokoko

Laboratory Technologist | Mokokovuyani.v@gmail.com | 0662412928