

## IDUNNU SOLAR LANTERN MADE FROM RECYCLED MATERIAL BY THE QUADLOOP GREEN ENTERPRISE IN NIGERIA

The [QuadLoop green enterprise](#) founded in 2016 and based in Nigeria has launched on the market the new **idunnu** solar lantern, made by 70% recycled material, with a style designed to fit any and every home.

QuadLoop is today an electronic manufacturing company that makes products out of electronic waste and contributes to the waste-to-value process. Its goal is to be a forerunner in terms of renewable energy and circular energy in Nigeria.

For every **idunnu** solar lantern produced, 2.5kg of e-waste is prevented from going into the landfill and for any lantern used, 0.5kg of CO is prevented from the use of kerosene lanterns and other dirty sources of light.

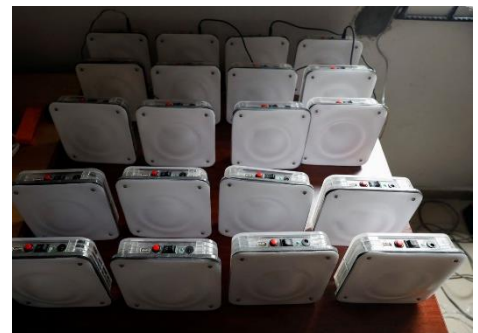
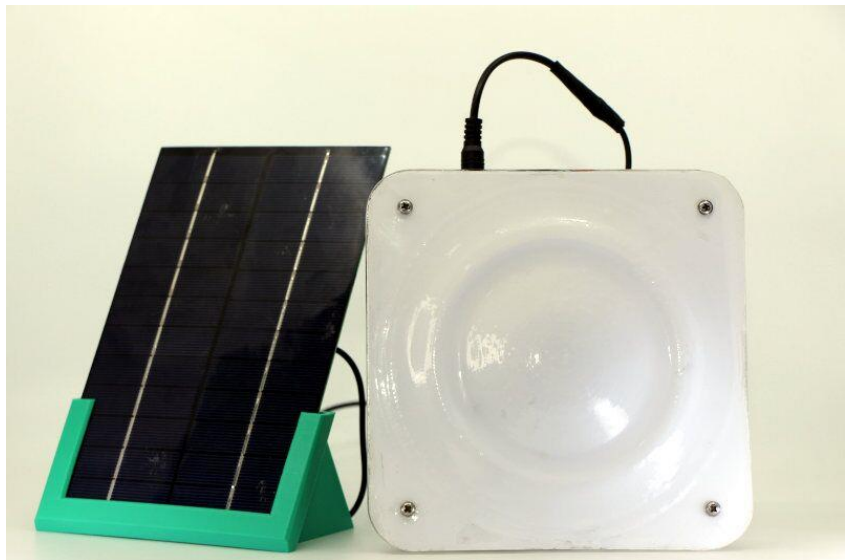
The [QuadLoop company](#) was founded in 2016 by [Dozie Igweilo](#), an entrepreneur with a degree in economics, a passion for electronics and above all a strong motivation to help implement innovative ways to utilize the ever-growing electronic waste stream in Nigeria, helping reduce the impact on the environment while solving the problem of electricity for people.

In its research to explore the potential market in the country for sustainable electrical tools and strategies, the entrepreneur focused in the severe problems of the Nigeria's national electricity grid, which often collapse during the year, generating power cuts that are disastrous for small businesses which cannot afford the use of expensive generators to guarantee continuous power and working hours.

Furthermore, E-waste is a huge problem in Nigeria like globally, because it not only destroys the environment but also poses a serious risk to public human health as it contains toxic substances. Nigeria is estimated as the second country in Africa to generate the highest amount of electronic trash, with its negative consequences.

These studies allowed the entrepreneur to discover a market for affordable and sustainable locally produced electrical goods for which however the components were not available in the country, orienting him to take advantage of electronic waste, in order to reduce the cost of production as well as the costs at the point of sale.

In 2016, after months of research on how to convert e-waste into electronic hardware, Dozie Igweilo and its partners started to buy raw



materials such as lithium-ion batteries, laptops and televisions from waste recycling companies. The materials were tested for durability and then turned into products. In the first year, the company produced 40 units of rechargeable solar lanterns. These lanterns were later marketed to small local businesses who use them to reduce their energy consumption at night or as an alternative to power cuts.

The QuadLoop start up enterprise was then created, with a recycling facility in the city of Lagos. QuadLoop recycles parts from electronic waste to produce low-cost solar lamps as a way not only to provide a cheap fix for power shortages but also to reduce electronic waste and its harmful effects on the environment.

The company's maiden product, **Idunnu**, is a rechargeable solar lantern with batteries and frames developed from e-waste, electrical goods or materials that have been thrown away. The frame is made from glass retrieved from discarded television screens and computer monitors. The lamp works with a portable solar panel of six volts, and three watts. During the day, the solar panel will be outside to get radiance from the sun, sending signal to the lamp and charging the lithium-ion battery inside the lamp, that takes about 10 hours to be fully charged.

Each solar lantern weighs about 2.5 Kg and comprises 70% of recycled electronic waste, while the remaining 30% comes from imported components. QuadLoop's solar lamps extend the life of used products, like glass and other materials and reduce the demand of additional ones that have to be produced. Furthermore, instead of using lithium batteries for storing power, reusing batteries from old electronics will have a huge effect on the planet.

In addition to the **Idunnu** lantern [QuadLoop now offers battery repairs and replacement services](#) to companies with similar products. It is also developing another product called the *Solar Home System* that charges rechargeable fans. The target markets of these products include small business, families, hospitals in rural areas and places that are off-grid or lack a constant power supply.

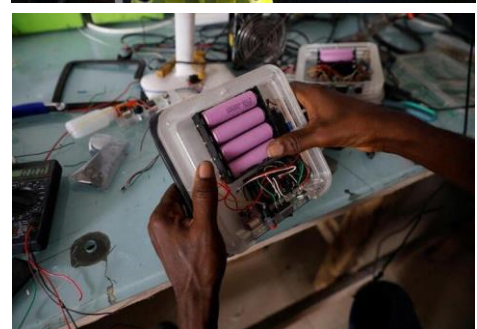
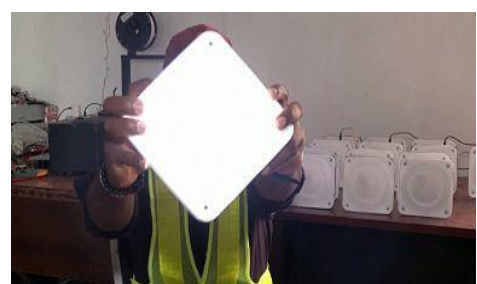
Contributing to fight climate change while improving energy access, QuadLoop' is a mission driven organization eagerly looking for innovative ways to *reduce, recycle and reuse* E-waste generated in Africa using a close loop circular economy model.

This green enterprise is looking to expand the production and the places where it can give value to consumers in Nigeria and in other countries in Central Africa with similar electricity supply challenges. The future for local electronics production from e-waste has already proved to be promising as well as attitudes are changing and more people are beginning to use these products developed from waste and to appreciate the purposes and processes behind them.

The experience of QuadLoop shows how small companies in Nigeria as in many other countries can make a great contribution in the transition to sustainable ways of development, facilitating access to energy and modern products and at the same time saving natural resources, reducing contamination of the environment and the effects of climate change.

**To know more**

[QuadLoop company website](#)



[Article in howwemadeitinafrica.com](http://howwemadeitinafrica.com)

[Article in Global Financial Digest](#)

[Article in Orange Corners](#)

[Article in Independent Newspaper Nigeria](#)

[Nigerian company turns e-waste into solar powered lanterns | Reuters](#)

[Meet Quadloop in climateaction.africa](#)

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