First solar freetown

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Emmanuel Alieu Mansaray, a student at university, came up with the idea of building a solar-powered car made from trash and scraps he picked up along the way. The project took him three years of hard work, but the car is now up and running.

Mansaray regularly drives it around the town and can reach speeds of 15km per hour. The "Imagination car" is designed using the country"s signature colours of green, white and blue and locals describe it as "amazing".

Pollution is a growing problem in Sierra Leone. Now, more than ever, there is a need for renewable transport to ensure cleaner air for its inhabitants. It has been rated as the 17th most vulnerable country in the world, when it comes to air pollution.

And it"s not just transport that"s the problem. Many households use charcoal or wood as a source of fuel for cooking, meaning the amount of carbon dioxide produced in cities is on the rise. Residents of Freetown are exposed to indoor and outdoor pollution, which can cause numerous different health problems, according to the World Health Organisation (WHO).

Day in, day out, residents of Freetown, Sierra Leone, are being exposed to indoor and outdoor pollution, leading to numerous health problems, according to the World Health Organisation (WHO). Most households are using charcoal or wood as a source of fuel for cooking, and this is increasing the amount of carbon dioxide being produced in cities.

Transportation is another major problem. Experts are calling for renewable transport to ensure cleaner air for citizens. It is in this regard that a 24-year-old university student decided to build a solar-powered car made from trash and scraps.

It took Emmanuel Alieu Mansaray, a self-taught Sierra Leonean inventor and engineer, three years to build the car. He now drives it around town. Dubbed the ‘Imagination car’, it can reach speeds of 15km per hour. Mansaray’s aim is to address goal 7 of the UN Sustainable Development Goals, which talks about clean energy.

“…Having a solar car like my ‘Imagination Car’ using solar power for transportation will make for a cleaner atmosphere, thereby reducing the risk of dangerous gaseous emissions that have led to the death of thousands of people around the world,” he said in an interview with Salone Messenger.

Mansaray is a student of the Fourah Bay College, University of Sierra Leone, pursuing a Bachelor’s degree in Geology. He began developing his innovation skills in 2018 when he built the first locally made

solar-powered tricycle in Sierra Leone. “During my primary school days, I used to pick up trash cans (example: milk tin, tomato tin, etc.) which I used to make different types of cars. I also used to collect trash batteries from the dust bin and convert them to supply electricity,” he said.

Now, his ‘Imagination Car’, which is designed using the country’s signature colors of green, white and blue, has made him a star in his community and beyond. The eco-friendly car does not use any fossil fuel to power it, he said. Its body is built with bamboo. The car has a large solar panel at the top of it, which powers the engine and also acts as its canopy. What’s more, the car comes with a self-made engine with three gears attached to it for both back and front movement.

There are two doors and two mirrors attached to the car’s left and right flanks. People are also amazed at its brake system, its left and right traffic light, as well as its four headlights and horn. Most importantly, the solar-powered car is pollution-free. Mansaray explained that it operates by converting sunlight into electrical energy using photovoltaic cells. Thus, it does not produce harmful or hazardous emissions, he said.

Mansaray’s car will not only make for a cleaner atmosphere but will also help the disabled, he said. “Some disabled people have cars that they can’t drive unless they paid individuals to drive them because their feet can’t reach down the clutch, brake, and accelerator, which is challenging. But for my ‘Imagination solar-powered car’, all the features are installed in the steering; including the clutch, brake and accelerator, and all other necessary features. With all this, every disabled person can drive with less to worry about.”