Multitec Project

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The purpose of this research project is to give a practical, portable and economic solution to “energy-poor” people in remote areas of the Peruvian Amazon Rainforest, as well as encourage communities to change the use of fossil fuels and generate power with renewable energy. By engineering a multi-functional mechatronic device with recycled materials, we are looking to solve the urgency for environmental protection and give an opportunity to the vast majority of people who lack access to electricity in rural areas. For this project we have recycled electronic parts, using both AC and DC in the same electrical system, applying the basic principles of electricity and electronics in which the interaction of particles such as the electrons will initiate the electric current. We designed a clean energy source generated by the conversion of solar and manual power, both offgrid and grid-tied energy system that obtains the required voltage for lighting, radio, TV, cellphones or laptops recharge. The device has been tested and appears to be an efficient alternative for remote zones without causing emissions that contribute to climate change. In addition, it is also practical during a power outage or emergency. In Conclusion, Multitec is a multi-functional mechatronic device designed to supply renewable energy in the Amazon rain forest which main purpose is to preserve biodiversity, protect the environment, promote environmental awareness, as well as satisfy social demand for electricity in secluded areas.

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