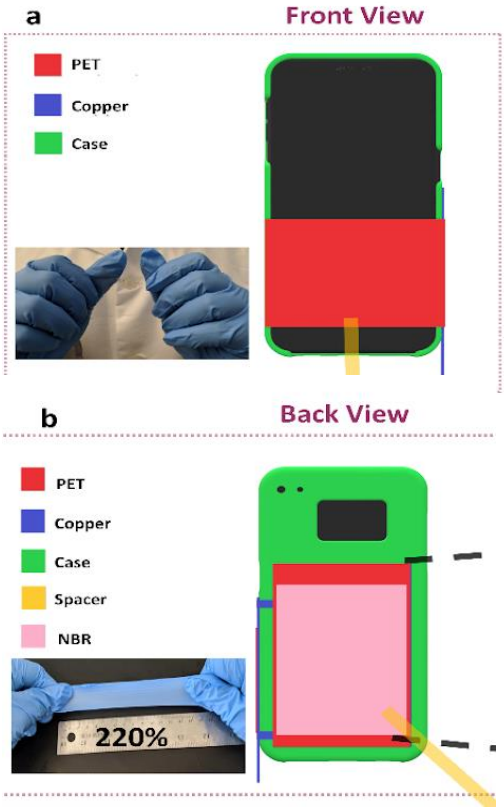
The University of Texas Rio Grande Valley
Office of Research Translation

TESTEC: A Cost Effective and Self-sustainable Triboelectric Energy Case for Powering Smart Electronic Devices



The Triboelectric Stepping and Tapping Energy Case (TESTEC) is a sustainable, simple and smart, triboelectricity based, self-charging technology that acts as a power source for smart electronic devices. It harvests mechanical energy from finger tapping (e.g., screen typing) and stepping motions (e.g., legs' movement), transforming it into electrical energy.

Problem

Electronic devices are getting lighter, thinner, and more compact. While these design choices offer many advantages, they have also led to a sacrifice in the space-size of a device. As a result, improving a device's battery life has become a challenge.

Solution

TESTEC addresses the need for a self-sustaining and self-charging power source that uses energy from the ambient environment. It utilizes the energy from mechanical motions to power smart electronic devices, providing a solution to the above problem.

Value Proposition

TESTEC enables the production of electrical energy through harvesting the mechanical energy produced by simple physical movements.

Competitive Advantages

- Promotes renewable energy and sustainable development
- High power density
- Good flexibility
- Self-charging

Status of Development

- Lab Prototype

IP Status

- Patent Pending
- Licensing available

For further information regarding this Technology please contact:
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