Lifejacket with Solar and Kinetic Energy Charging System

The lifejacket with solar and kinetic energy charging system combines two sources of alternative energy to create a portable charging system that can charge any portable device with USB capability. Solar panels will be installed on the lifejacket. The solar panels are flexible and are placed on the outside of the jacket on the shoulders, chest, and back where they can convert the sun’s rays into energy. The total area of the solar panels is one square foot and can produce about eight to ten watts of energy in an hour. The energy is stored in a capacitor. Then the user’s device can be attached via USB port where the energy will be transported through a cable to charge the device.

A kinetic energy charging device will also be installed inside the life jacket. The kinetic energy charging system is basically a metal cylinder. Inside the metal cylinder is a magnet attached to springs inside a metal coil. As someone moves their body, the magnet oscillates in the coil and creates an electrical charge. This charge is stored with the energy from the solar panels in the capacitor. This can produce about 2.5 watts in a day.

The Lifejacket with solar and kinetic energy charging system will be very easy for consumers to use. All a person needs to do is put the lifejacket on and plug in their device and it will begin charging. This lifejacket is a little bigger and heavier than most, but it will not be too overbearing as to weigh a person down. It will also be able to support the average sized person in the water in case of an accident. All of the wiring for the lifejacket will be concealed and completely waterproof so the person will be completely safe if an accident does occur. This lifejacket will have little to no impact on the environment be it uses two alternative sources of energy. This lifejacket does have some cost to it though. The cost will be around 300 to 350 dollars.
Life Jacket

Sun
Absorbed By
Solar Panels
Converted into
Energy
Stored in
Capacitor

Movement
Oscillating
Magnet in Coil
Converted into
Energy

Transferred to
Device