Organ Box: The Use of the Technology to Aid in the Transport and Tracking of Organs in the Transplantation Process

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In today's world, humanity has found a way to increase life expectancy. This form is segmented in the hospital medical area, which uses various procedures and research to increasingly increase the prospect of life, among all these technologies, there is organ transplantation, which often becomes the only solution. Making this process more reliable is what the project proposes, as well as reducing possible organ losses in transport due to inherent problems in the way they are delivered to the patient. Aims to develop a box for carrying out the refrigerated transport of organs, through the main components: peltier module, display, heat sinks, so that the peltier cell will refrigerate the box, there will be temperature control through a thermometer and the integration of devices electronics for the implementation of a prototype capable of tracking its position (using the Global Positioning System - GPS), delimiting an area of ??interest (geofence), reading sensors, estimating the status of its power supply (battery and charger) and transmit messages (SMS). It proposes to create a fully automated box, where both the hospital and the doctor will have full control over the box and the transported organ, with its information transmitted on the display, and control of the box by the tracker, enabling safe transport. The organs are carried in internal compartments, at the refrigerated, adequate and controlled temperature, under ideal conditions of conservation, regardless of the distance traveled or time of displacement; in order to eliminate wasted time in the cycle between the collection and reception center, minimizing the risk of ischemia.

Awards Won:
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