

Medi-Kool



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Problem

- Following a natural disaster, loss of grid power results in an inability to keep temperature-sensitive medications cool by conventional methods, causing a spike in preventable deaths
- One study estimates diabetes related deaths increase by 40% following a hurricane

Solution

- Medi-Kool is a portable storage device for temperature sensitive medication that runs on its own power source
- Medi-Kool will protect medicine and save lives

Design

- The current design utilizes a portable cooler and a Peltier plate (fig. 1) powered by a battery and solar panel. A heat sink and fan is secured to the hot side of the Peltier plate to draw away heat. The cold plate is secured to the cold side of the Peltier plate and is equipped with straps to hold a full prescription of insulin. Power is regulated by a temperature control switch to keep its contents at the correct temperature

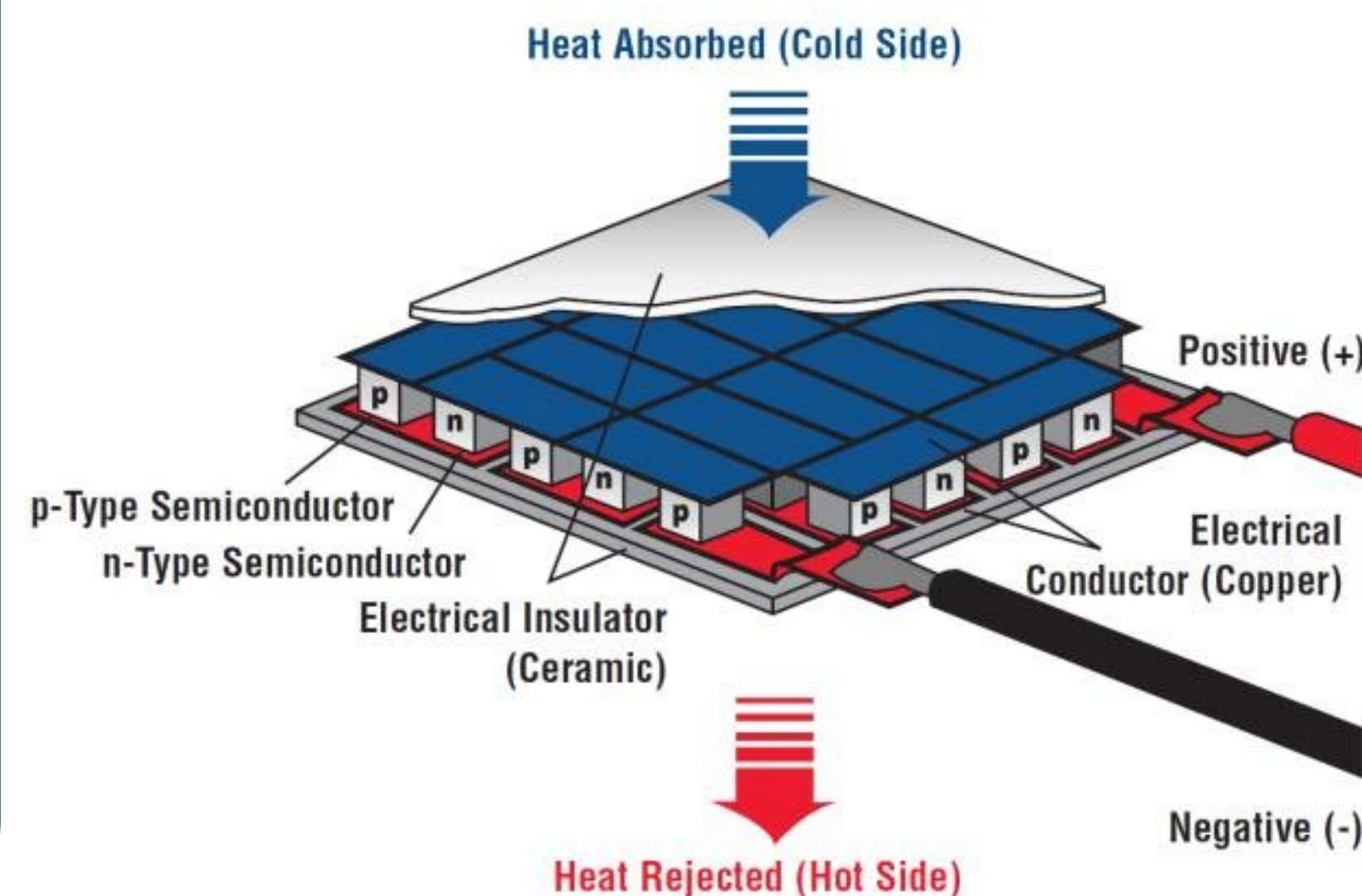
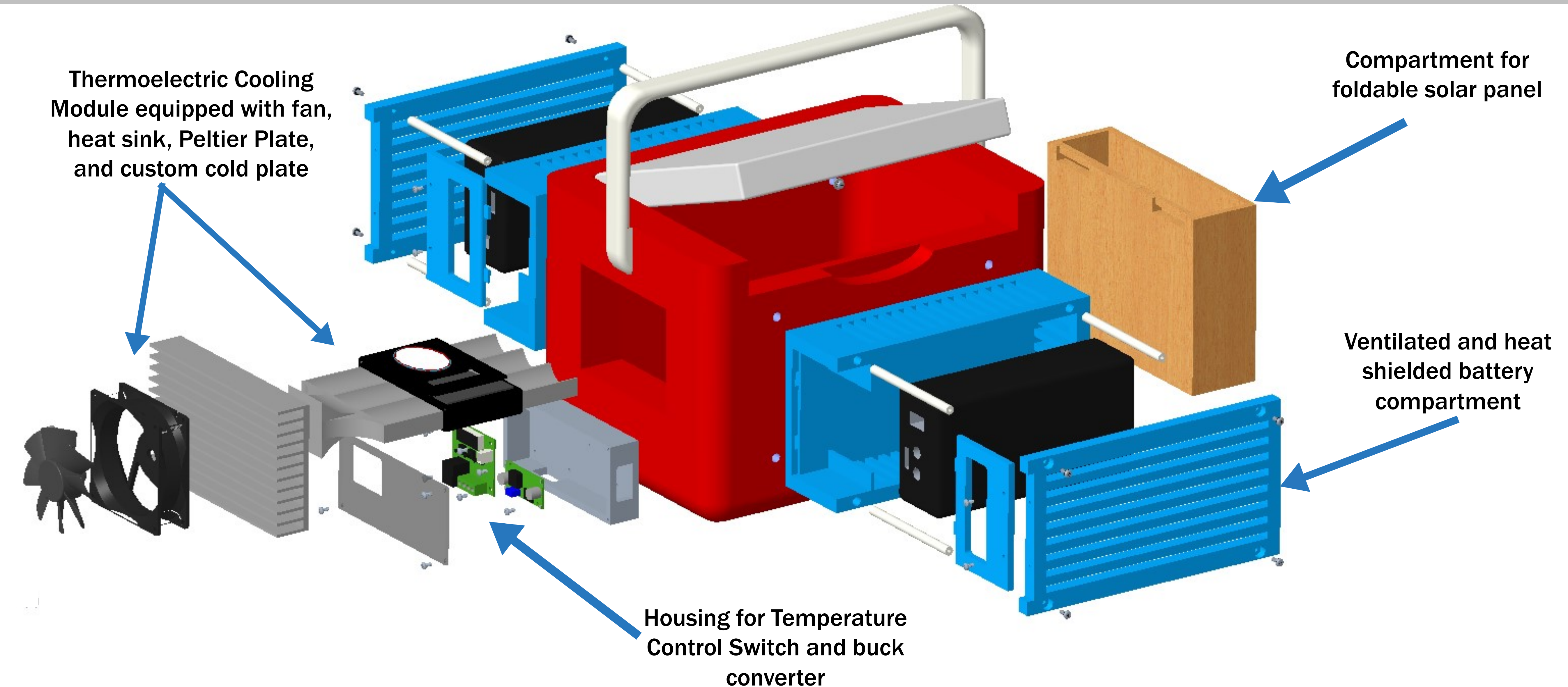


Figure 1: Peltier Plate

Target Temperature

2°C - 8°C

Target Duration

14 Days

Entrepreneurship Competitions

- Won 'Most Scalable' Prize at the Jim Moran College of Entrepreneurship inNOLEvation Challenge
- Selected to represent FSU at the ACC Inventure Prize Challenge