

Solar I²R (Ice Inhibitor & Retardant)

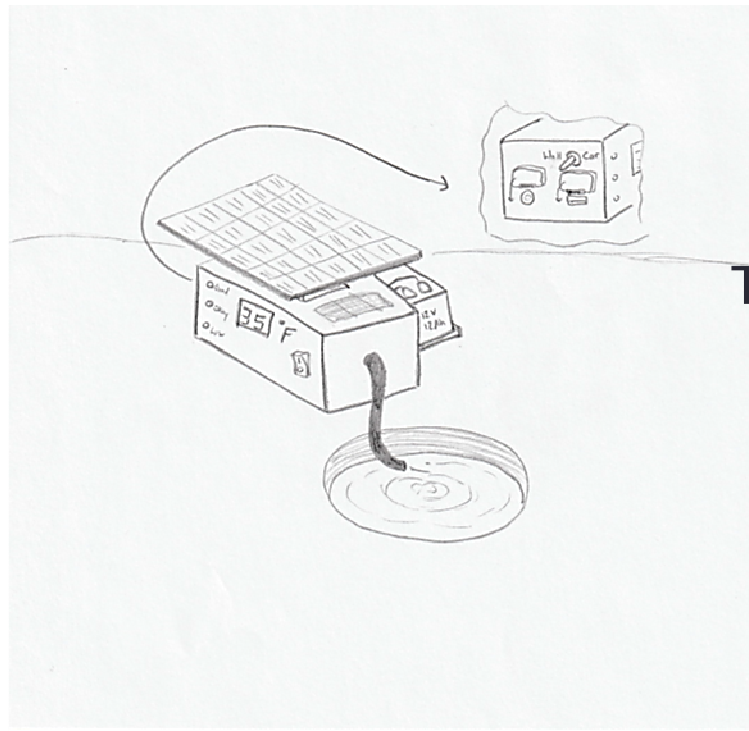
Team 5



Kyle Gerum (LRM)



Brandon Khoury (LSD)



Tyler Haensgen (LPI, LPD)



Colin Van Eyck (LPM)

Solar I²R (Ice Inhibitor & Retardant)

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- Purpose of Product:

Inhibits the reformation of ice in an ice fishing hole which reduces maintenance time for the users.

- Feature 1:

Battery levels maintained by solar power while in the field.

- Feature 2:

Constant outdoor ambient temperature display.

- Feature 3:

Alternative means of charging available.

- Residential Power: 102 – 132 VAC, 450 mA Max, 57-63 Hz
- Car Charger: 10-15 VDC

- Market:

United States, Upper Midwest

EE-595

Key Requirements

- Cost
 - Sales Price: \$179.99, Component Cost: \$130.00, Assembly & Test Costs: \$20.00
- Environment
 - Outdoors
 - Operating Temp Range: -30 to 35 °C
 - Humidity Range: 0 to 100 %
- Power Inputs
 - Lead Acid Battery: 12V, 12 Ah
 - Charging Options
 - Solar Power: 12VDC
 - Residential Power: 102 – 132 VAC, 450 mA Max
 - Car charger: 10-15VDC
- Major Functions
 - On/Off Power switch
 - 7 Segment ambient air temperature display
 - Charging mode switch
 - Pump On/Off switch
 - Battery voltage level LED indicators
 - Temperature sensor
 - Accuracy: ± 2 °C
 - Range: -30 to 35 °C

EE-595 Block Diagram

