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About US

HeatSync is an engineering consulting firm based in the heart of Silicon Valley, specializing in **thermal management solutions** for electronics and battery energy storage. With nearly 150 years of combined experience, we offer expertise in **design architecture, optimization, simulation, and prototyping**. Our team of engineers, designers, and researchers are committed to delivering innovative solutions across a variety of industries.

Innovative Thermal Management Solutions



Explore how HeatSync can transform your thermal management solutions.

Core Services

Architectural Design and Optimization

At HeatSync, we design thermal architectures for various applications, ensuring efficient cooling for both passive and active systems.

Comprehensive Thermal Testing

We perform thermal testing to ensure optimal performance, using custom experiments and advanced tools.

Liquid Cooling Solutions

We design and optimize liquid cooling systems for GPUs, servers, and battery packs, ensuring precise temperature control.

Virtual Temperature Sensors

Our virtual sensors provide real-time temperature monitoring in wearables and Li-ion batteries, improving safety and performance.

AI, ML, Digital Twins, and 1D System-Level Analysis

We use AI and digital twins for predictive modeling and real-time adjustments, ensuring reliable system performance.

Airflow Optimization

We enhance the energy efficiency and reliability of air-cooled thermal solutions while minimizing acoustic noise.



Thermal Package Characterization

We create detailed thermal models, including Delphi and 2R models, for accurate and efficient thermal performance analysis.

Reliability Studies

We conduct detailed reliability studies to predict failures in electronic components, ensuring long-term performance. Our expertise includes solder joint fatigue prediction and stress analysis.

Li-ion Battery Thermal Management

We offer complete thermal management solutions for Li-ion batteries, from transient behavior analysis to real-time temperature mapping and thermal event studies. Our solutions extend battery lifespan and ensure safety.

R&D Services

Our R&D team develops innovative thermal solutions, leveraging advanced tools like CFD, machine learning and testing techniques.

Specialized Staffing Services

We provide expert test engineers and designers for thermal management projects, offering both short-term and long-term staffing solutions.

