# Case study: Solar Decathlon House (Santa Clara University)



## CHROMASUN



#### **Project Overview**

Chromasun and its partners installed three Micro-Concentrator collectors at Santa Clara University's 2007 Solar Decathlon House. These collectors are integrated with an absorption chillers that produces chilled water that is used in the air-conditioning process at the house.

### **Client Overview**

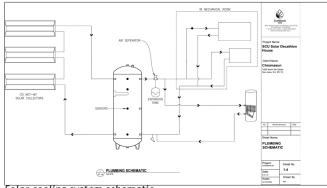
Centrally located on the campus of SCU, the Solar Decathlon house is the result of a collaboration among students from the SCU School of Engineering. The house serves as a live demonstration project for Bay Area students interested in alternative energy and learning about new cutting edge solar products.

#### **Client Perspective**

"This collaboration is a perfect example of how Santa Clara University continues to work with Silicon Valley companies to expose our students to their most cutting edge technologies. We can use this technology to demonstrate and explain to students newer ways to collect solar thermal energy, and collect and measure the data in real time."

-  ${\it Professor Timothy Hight}$ , Mechanical Engineering Department Chair at SCU

SYSTEM AT A GLANCE	
Location	Santa Clara, CA
Building	Solar Decathlon House
Collectors	3 MCTs
Total Collector Area	134 square feet
Chiller	Yazaki 3-ton
Solar Storage Capacity	375 gallons
Therms Offset (1 Year)	336 (estimated)
System Size	6 KWt
System Cost	\$40,000 USD



Solar cooling system schematic



SCU Students outside of the Solar Decathlon House

#### **About Chromasun**

Founded in 2008, Chromasun is a leading developer and manufacturer of rooftop friendly high performance solar solutions. Chromasun's unique MCT HT solar collector provides high grade thermal energy, but in a familiar flat panel format with no external moving parts. The MCT HT is designed to drive high performance air-conditioning absorption chillers and other industrial process heat applications. It is the most space efficient solar technology available and can produce more energy per unit of roof area than any competing technology. As a leader in the space, the Chromasun team of engineers and professionals have decades of experience in utility scale solar, air-conditioning engineering, product development and manufacturing.