

the  
solairo  
project

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## A Sustainable Heating and Cooling Solution for Refugee Camps

Our  
Vision

Improving the living conditions of people forced out of their home countries through innovative and sustainable technology

The  
Problem

- Over 22 million refugees in the world today experience a 17-year average displacement
- Refugee shelters are not equipped to withstand extreme high and low temperatures, yet the thermal comfort of refugees remains an unaddressed issue
- Exposure to these temperatures leaves refugees vulnerable to numerous health risks, while also diminishing their agency to rebuild their lives and homes apart from their country of origin

Our  
Solution

- As the first solar-powered, all-in-one heating and cooling system, Solairo can effectively meet the thermal comfort needs of refugee families
- Ideally suited for the harsh, arid environments surrounding refugee camps, Solairo utilizes proven solar PV, solar thermal, desiccant dehumidification, and evaporative cooling technologies
- Solairo offers a fully sustainable, cost-effective, and socially conscious off-grid solution to remedy the effects of the extreme temperatures afflicting refugees

### Key Features

1

High Efficiency Heat Exchanger transfers heat from the solar thermal source for both space heating and desiccant regeneration

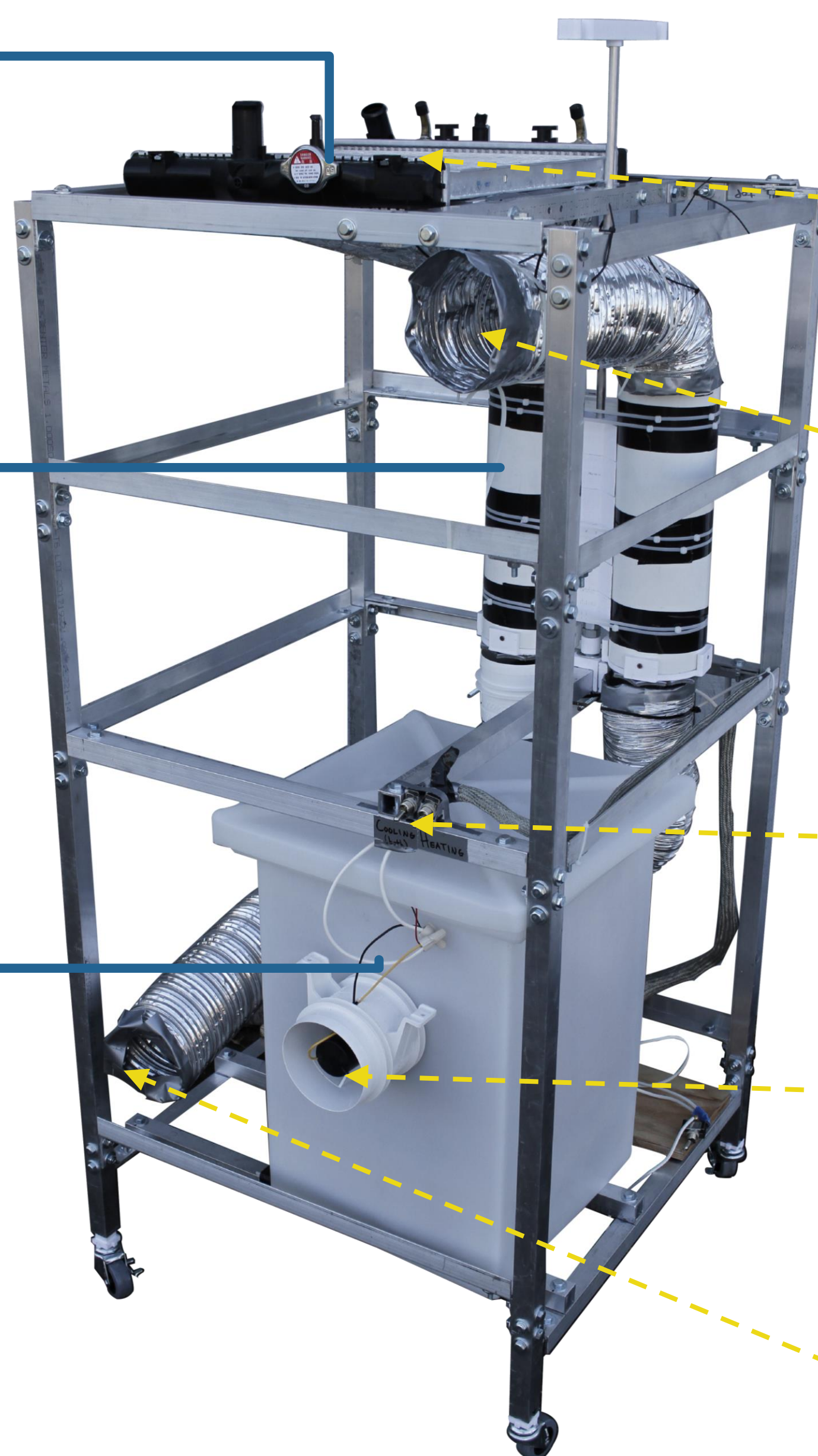
2

Rotating Desiccant Tunnels dehumidify for cooling longevity and comfort – rotating for self regeneration

3

Contained Evaporative Cooler thermally protects the cooling process while preventing environmental contamination

### How It Works



Hot Air Intake

Cool Air Intake

Control Switches

Cool Air Output

Hot Air Output

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