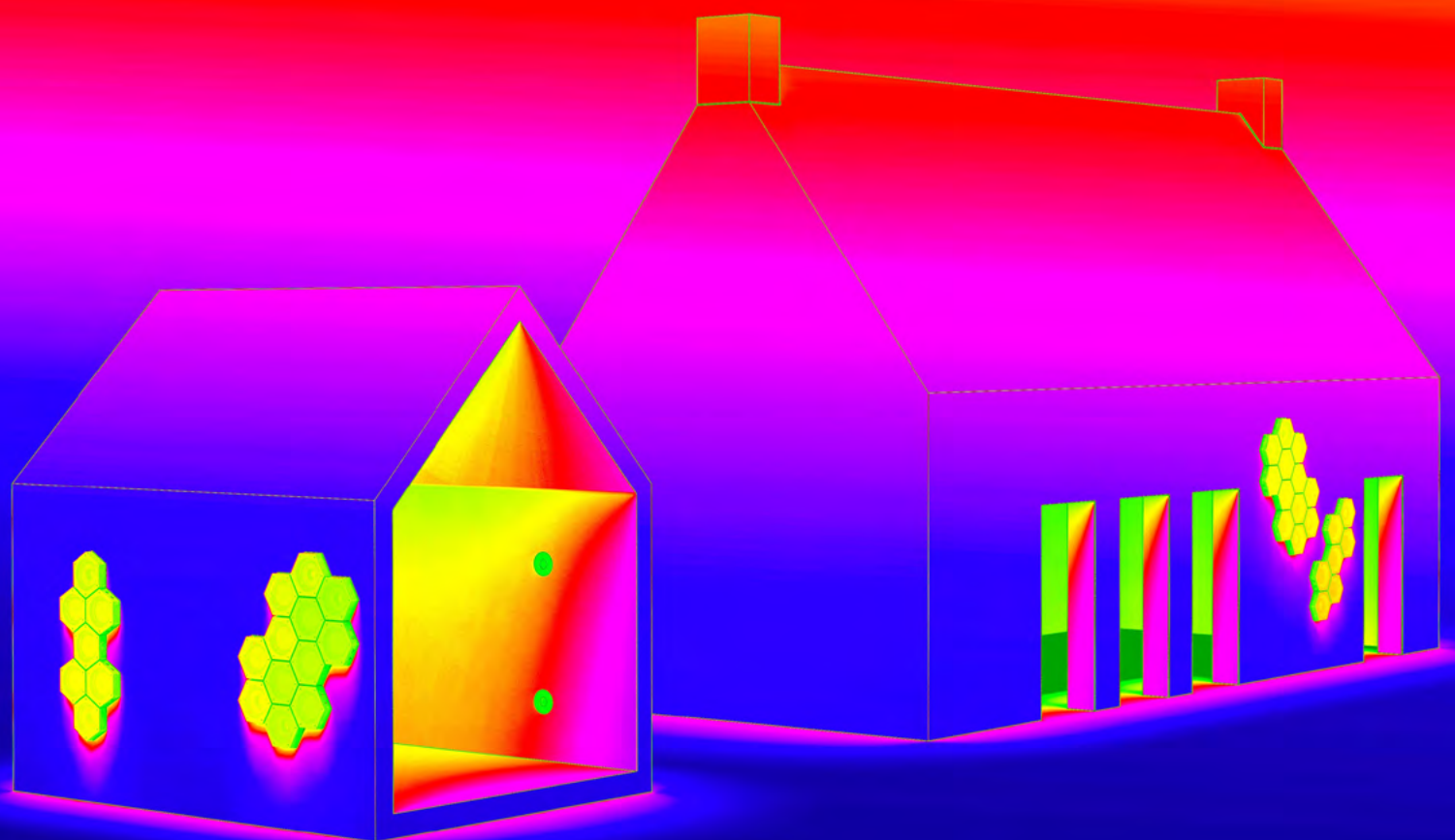
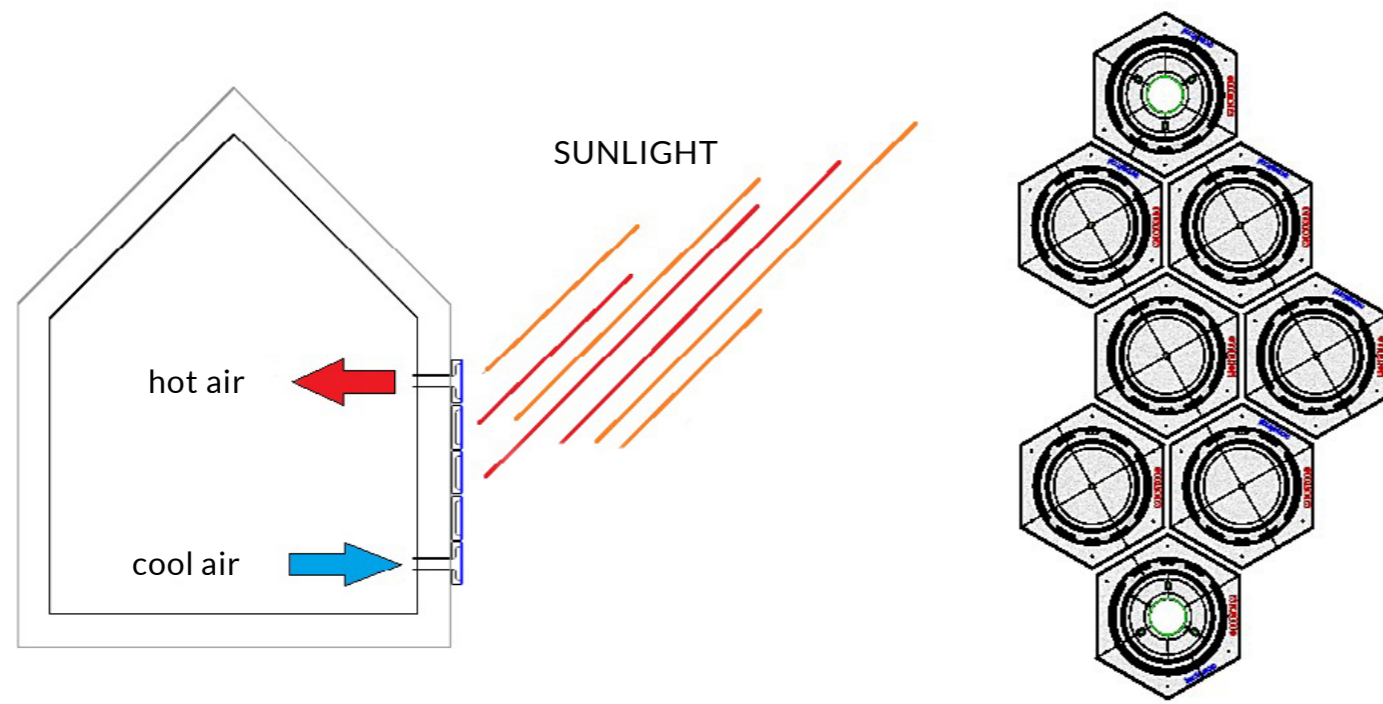


SOLAR HEAT

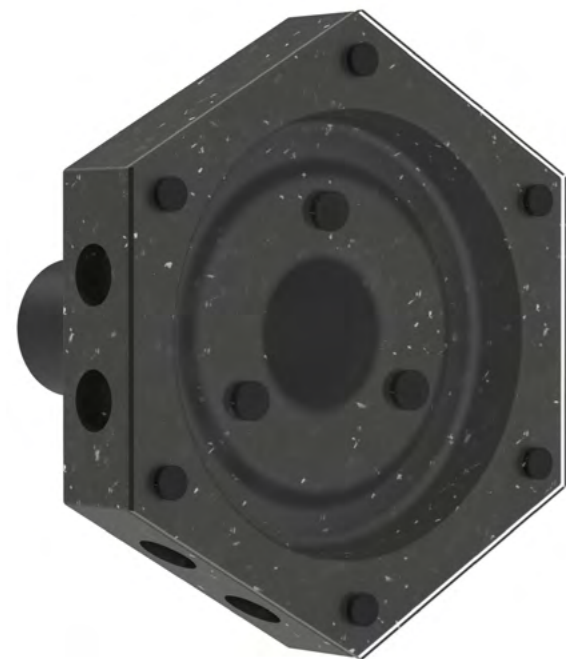
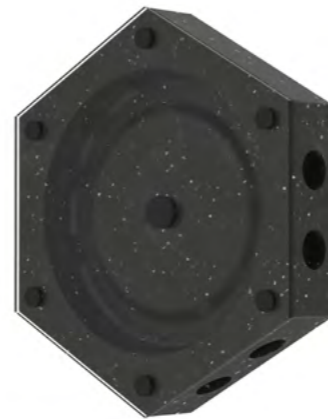
by Ecopixel & Montello





Introduction

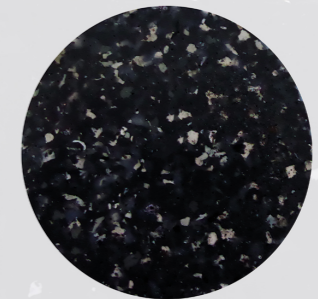
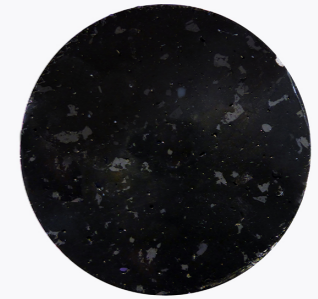
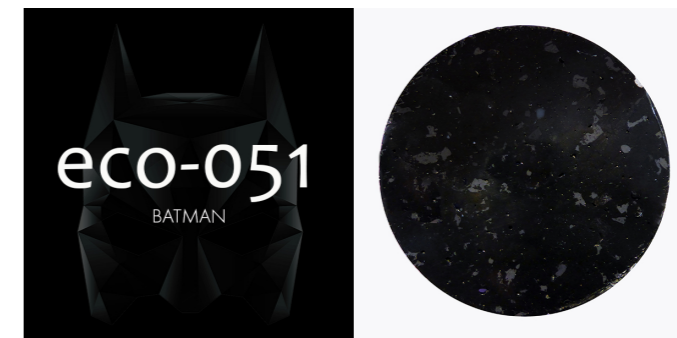
Following the simple principle of direct air-heating through sunlight we hope to contribute to lower energy-consumption in future housing. Especially in wintertime, when outside temperatures are low but full sunlight is available, this SOLAR HEAT system will add free of charge, sustainable heating to your home.

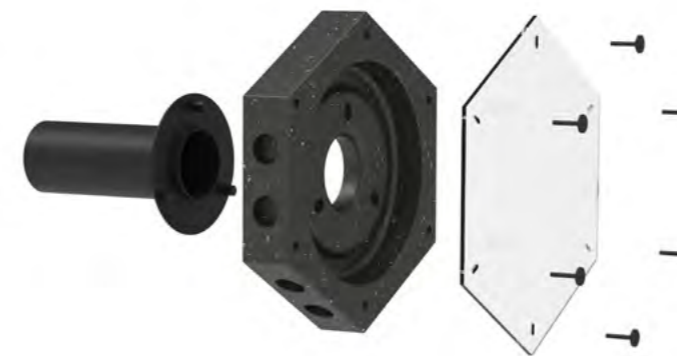
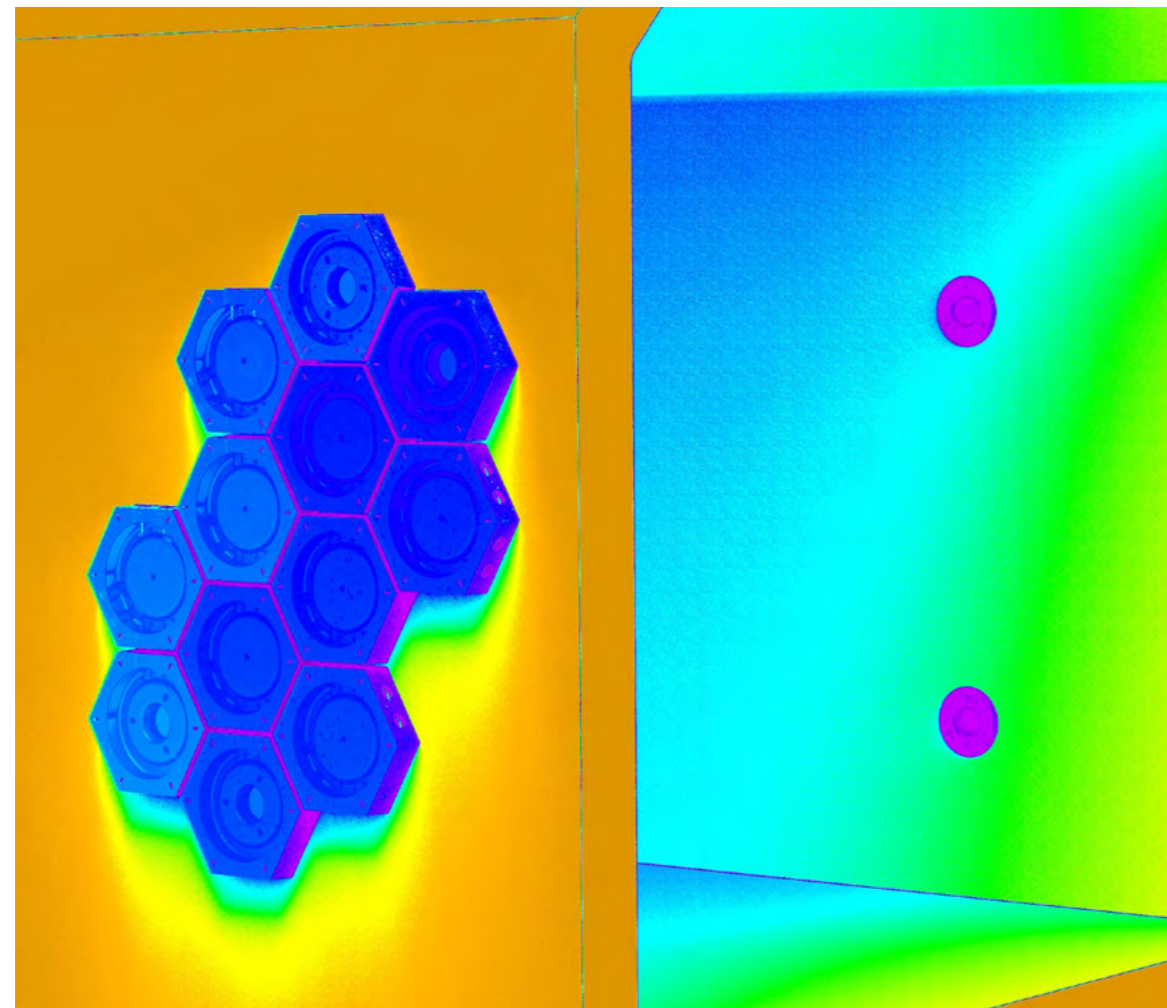
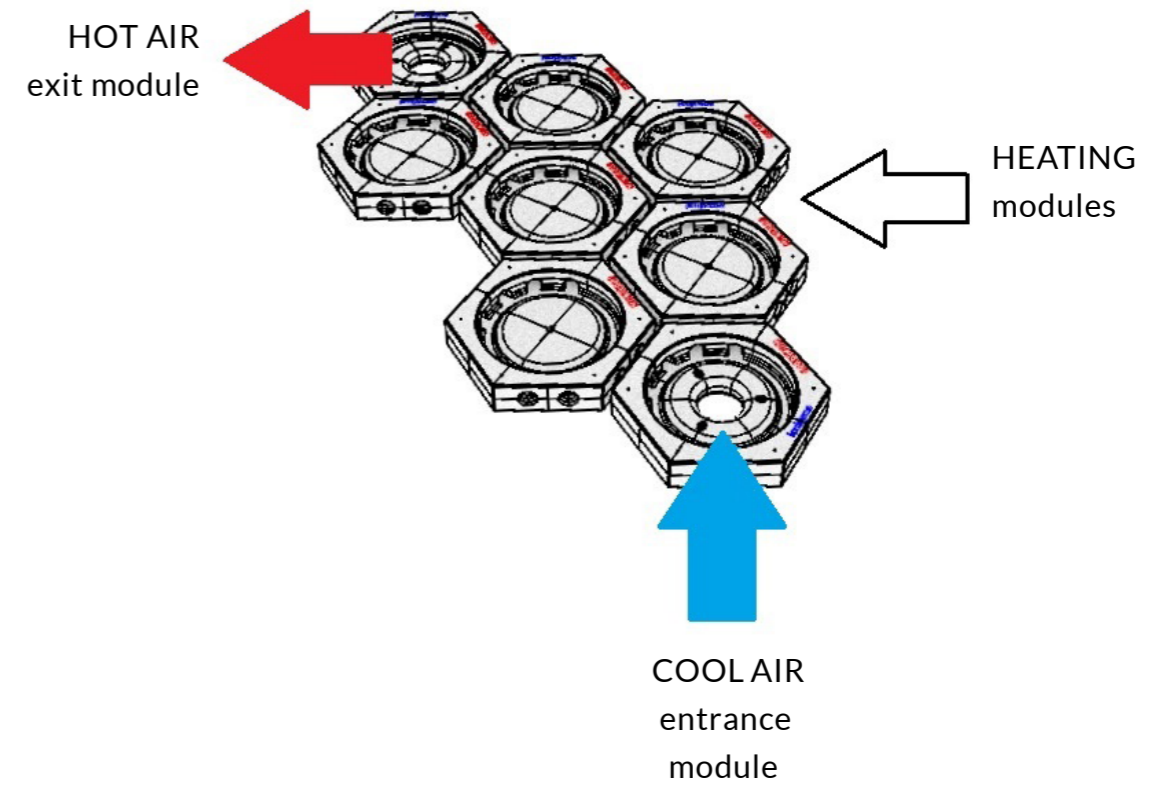
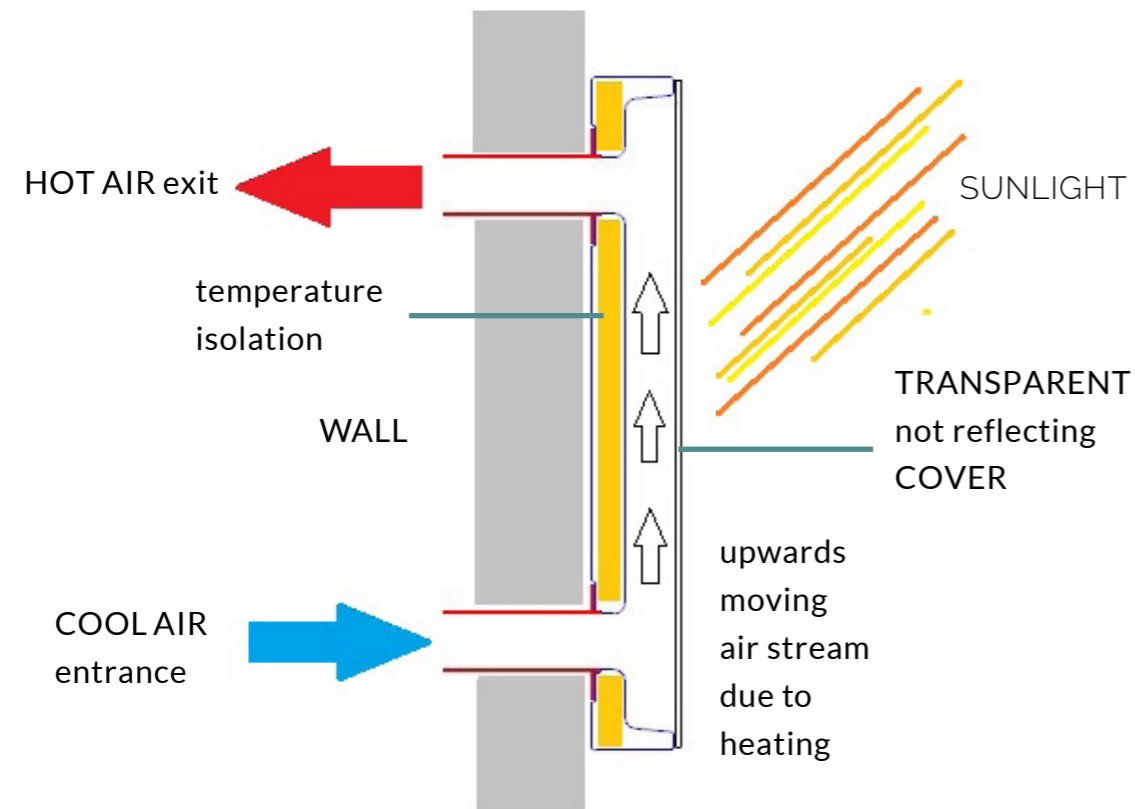


Explanation

The SOLAR HEAT system, being an empty box covered by a transparent cover, results the perfect heat collector. In fact, the sunlight that enters the box will quickly be absorbed by it's black* enclosure and therefor heat up the air inside. The heated air will create upwards air movement that triggers a vacuum sucking in the cooler air from the bottom whilst blowing it out as hot air from above. Further, due to it's heated condition the physical expansion of the air will help the natural upwards air flow and so continuously exchange cool air with hot air inside the living space. The number of panels will in the end define the efficiency of the system. This way SOLAR HEAT can be optimized to any situation and/or location.

*The black color, confront to a light color, doubles the capacity to absorb and therefor transform sunlight into heat.



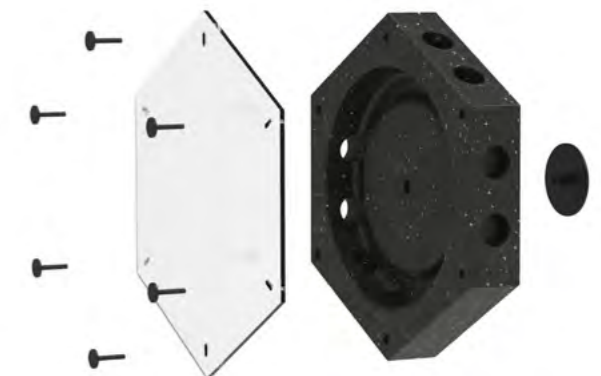


Entrance & Exit modules

Entrance & Exit modules feature the connecting pipe that connects the internal living space with the SOLAR HEAT system. Every Entrance/Exit module can connect up to 2 Heating modules.

Heating modules

Heating modules merely pass on the air from one module to the sequent module. Inside the Heating modules the air will heat up. The number of modules basically decides the efficiency-level of the entire system, being modularly extendable to adapt to any requested situation.







MONTELLO

100% certified post-consumer recycled plastics

Thanks to MONTELLO, the leading Italian post-consumer plastic waste recycler, the SOLAR HEAT enclosure is made of 100% Certified Post Consumer LDPE. At Montello, post consumer packaging waste is transformed into granules through a multi-step process : sorting, grinding, washing, flotation, densification and extrusion.

The obtained certified MONTELLO LDPE is the basis of every SOLAR HEAT module, being it's very raw material. Furthermore, the MONTELLO material assures full recyclability also after its life-cycle, making SOLAR HEAT a truly circular product.



ECOPIXEL

recycled plastic productions



Specialist in design products made from recycled plastics, ECOPIXEL transforms the MONTELLO raw materials into the SOLAR HEAT modules. ECOPIXEL has set new standards in technology & possibilities introducing the innovative pre-pressed method allowing 3D plastic productions with recycled plastics. Once the raw materials are selected a special mix is prepared to obtain the exact mixture. For SOLAR HEAT a specific mixture was studied in order to absorb as much sunlight as possible while at the same time assuring sufficient structural qualities.

Given the high temperatures SOLAR HEAT is exposed to, the design requested precise detailing that allow up to 3% (!) material expansion. The modular character of the hexagonal modules make SOLAR HEAT an easy to adapt system that fits a diversity of wall space from small to large to even the largest of public buildings.



SOLAR HEAT

design: Jan Puylaert copyright 2022

produced by

MONTELLO www.montello-spa.it

ECOPIXEL www.ecopixel.eu

made in Italy

with 95% certified Post Consumer
Recycled Plastics

