



The infrared heater in action | Photo source [Koleda](#)

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HOME HEATER USES INFRARED RADIATION, SAVING ENERGY

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A new heater uses thermal radiation to heat objects directly, using around 30 per cent less energy than traditional systems

Spotted: Most home heating systems have not changed much over the last decades – they use a boiler to heat radiators, or force warm air through vents. They rely on the principle of convection, which is the transfer of heat from one place to another by the movement of a fluid, which for this purpose includes air. However, these systems are energy-inefficient and expensive. Now, one company has developed a new type of radiator, which uses infrared or thermal radiation to heat much more efficiently.

The Solus+, by Swiss-based start-up Koleda, delivers heat via infrared radiation, whereby heat is transferred directly to the objects in the room. This uses around 30 per cent less energy than traditional convection heating systems. The heater can be installed by simply plugging it in, and is designed as a smooth, flat panel that fits almost everywhere in the home, requires no ongoing maintenance and will not burn out.

The Solus+ can also connect to a companion app, which allows users to monitor and adjust the heat of each unit individually. It also lets users turn units on while on their way home, for a warm house the minute they walk in the door, and prevents them from accidentally leaving the heat on while away.

According to Koleda CEO, Maxim Interbrick, it is high time for a new way to heat homes. “The way we heat our homes has remained stagnant for much of the last century. Now, as the world moves towards renewable energy sources, and the electricity grid becomes cheaper and cleaner, we set out to develop an innovative solution for environmentally conscious homeowners,” [he said](#).

At Springwise, we take a great interest in innovations that aim to improve energy efficiency. We have recently covered fascinating developments in this area that include using [electric cars](#) as

energy storage units and solar-powered water pumps that monitor usage while they pump.

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Takeaway:

Thermal radiation heats objects directly, rather than warming the air around them, making it more energy-efficient than convection heating. The company claims the Solus+ will not lose this efficiency over time, and is both faster and easier to use than traditional heating systems. All of this translates into a cheaper heating system, and because the Solus+ is electric, it may also be well-suited to places that offer alternative forms of electrical energy generation, where it can provide even greater energy savings.