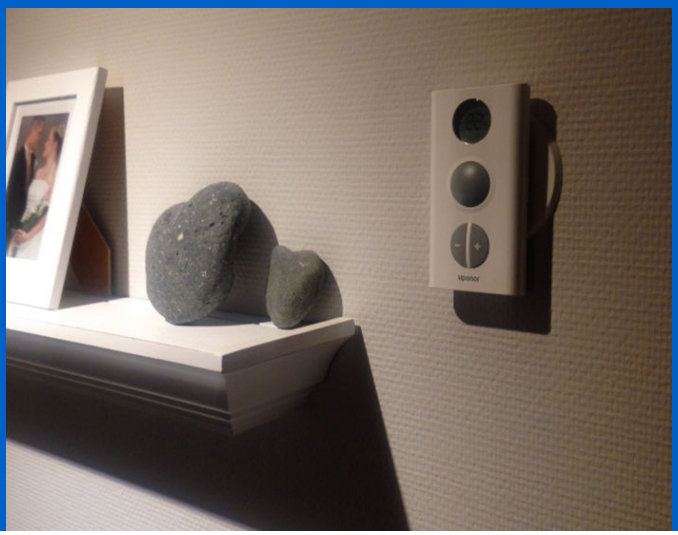
References

Upgrade of underfloor heating control system in a single-family house in Heinola



Uponor involvement

160 m2

Upgrade of underfloor heating control system in a single-family house in Heinola

A single-family house in Heinola was suffering from uneven heat distribution. The problem was solved by upgrading the underfloor heating control system to Uponor's wireless Radio 24 V control system, which allows to regulate the temperature of each room separately.
The Lehtinen family lives in a cosy single-family house, built in 2007, in the Jyränkö district of Heinola. The Lehtinens purchased the house in 2009, after falling in love with its layout and location. The house has a heated surface area of 160 m2 on one level and is heated by hydronic underfloor heating. The Lehtinens were happy with it and did not consider any other heating option.

Project Facts:

Location
Heinola, Finland

Completion
2015

Building Type
Single family home

Product systems
Radiant Heating & Cooling

Project Type
Renovation

”However, we soon noticed that heat was not distributed evenly to all rooms”, says Teemu Lehtinen, the owner of the house. It turned out that, in several rooms of the house, hot water circulation could not be regulated in any way and the actuators were always fully open when heating was needed. As a result, some rooms were warmer than others and, for example, the children's rooms were always a bit too chilly.
”Room-specific regulation was not an option, and it felt like the kitchen's tile floor was so warm that it probably heated up the whole house” says Teemu.

In October, the Lehtinens received a letter about Uponor's new underfloor heating control system. The letter arrived at the right time. ”I realised immediately that this was the right solution to our problems” says Teemu with a smile. He contacted Uponor's single-family house service right away, and the installation was scheduled for the same week. The decision was made to install Uponor's underfloor heating control system, which uses a completely new technology. The system has automatic flow balancing, which ensures that heat is distributed evenly throughout the building. A separate wireless thermostat, which can be used to regulate the room temperature to the desired level, was installed in each of the rooms to be heated. A control panel was also installed to be able to centrally regulate the heating of the whole house and to set, for example, separate temperatures for nights and holidays. ”The rooms now have more stable temperatures thanks to room-specific regulation, and even the children's rooms are heated properly” says a satisfied Teemu.

The new regulator also reduces energy costs as it prevents overheating and makes it easier to control heat distribution. According to several studies, energy costs can be reduced by up to 5–8%. ”I do not consider an investment of EUR 1,500–2,000 to be too big if it improves living comfort and reduces energy costs” reflects Teemu. ”Winters are now nice and enjoyable – also indoors.”

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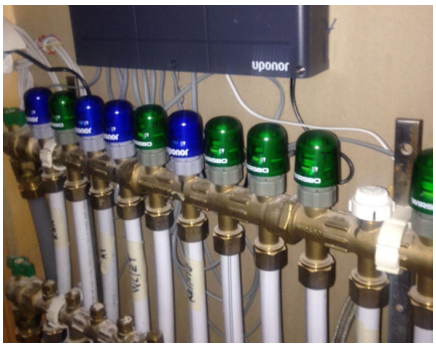
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