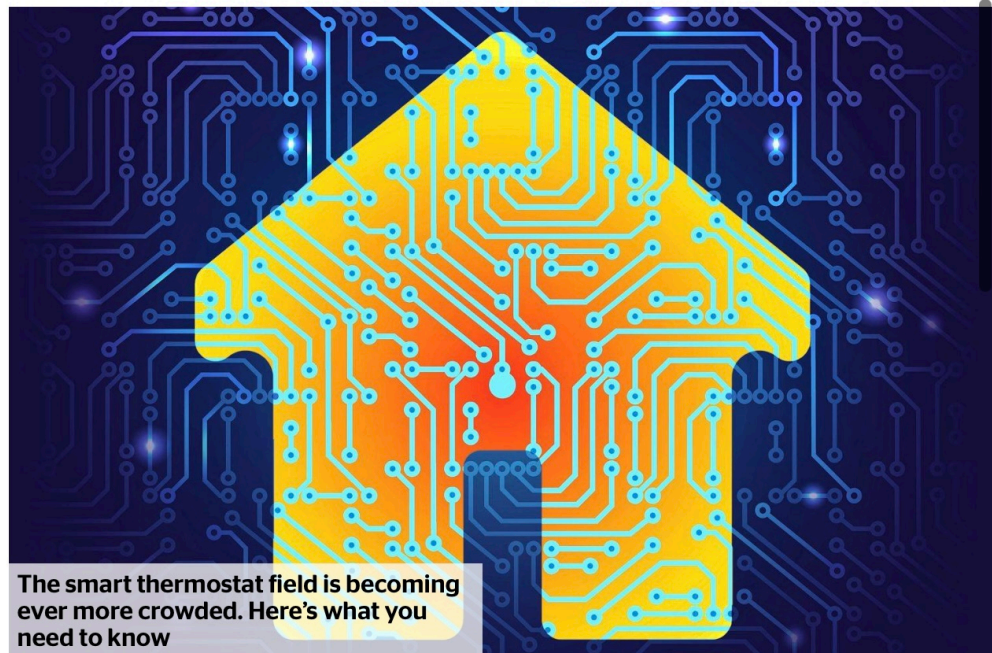


Hot topic

Jayne Dowle

Nest, Hive or Tado: which smart thermostat to choose



The smart money this autumn is on taking control of your heating with a smart thermostat. This clever bit of kit can start off at less than £200, but has the potential to save thousands of pounds on energy bills over the coming years.

Using an app, plus a digital voice assistant such as Amazon Alexa or Google Home, it will allow you to switch heating on and off without moving from your sofa, bed or your 9-5 office. The latest technology will also help you work out the most energy-efficient programme personalised to your home. For example, some smart thermostats will even “read” your habits and adjust the heating accordingly, ramp up the temperature if the weather turns cold, and can be programmed to keep heating efficiently ticking over, avoiding frozen pipes should you decide to decamp to the Maldives for the winter.

“Which smart thermostat is best for you will depend on what you’re hoping to use it for,” says Emily Seymour, *Which?* energy and sustainability editor. “Some can be used to control your hot water usage, some are able to learn your routine and preferred temperatures and program themselves accordingly, and others are best for zonal heating, working with compatible radiator valves.”

While all smart thermostats carry out the same basic function — controlling your home energy to eliminate waste and reduce bills — they do differ in what they offer. Hive, for example, one of the most well-known names in smart thermostats, owned by British Gas, is not compatible with heat pump technology; Nest, however, owned by Google, is.

Honeywell’s smart thermostat works through radiator valves (so can be expensive if you have a large number of radiators), but Gwent-based Wundasmart claims to be the best choice for bigger

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properties, supporting up to 30 rooms and 50 radiators. All Wundasmart settings are stored in a physical central hub, so if you're in a remote location and the wi-fi goes down, you can still control the system through the LAN (local area network). A Wundasmart starter kit is £199.99.

As the field becomes ever more crowded, manufacturers are seeking credible USPs. Netamo, for example, makes much out of the fact that its boxy smart thermostat, which comes with colourful interchangeable trim, was designed by Philippe Starck, £145.

The Good Housekeeping Institute has recently run a thorough test of leading smart thermostats, which says that when you're making a choice you should consider your other smart tech too — which digital assistant does your video doorbell and security camera work with, for example? It obviously makes sense to choose one that will work alongside what you already have.

Most smart thermostats come in three parts; a hub, a receiver and the smart thermostat itself. You can also buy individual smart radiator valves that connect into the system, so radiators can be operated individually — think of these like clever versions of the existing thermostatic radiator valves (TRVs). Most smart thermometers can be installed by a competent DIYer, but always check carefully with the manufacturer first.

However, it's worth knowing that there is a protocol coming that helps smart devices to communicate, called "Matter". This is developed jointly by Amazon, Apple, Google, and many other manufacturers to eliminate incompatibilities, so bear this in mind, too.

Ava Kelly, an energy saving expert at Love Energy Savings, a business utilities and price comparison provider, says that the three main players in the smart energy solutions game are Hive, Nest and Tado.

Most smart thermostats will now also control a hot water system, but before buying check with the boiler and smart thermostat manufacturer, and your energy company, to make sure your choice is compatible.

Switched on: the lowdown on the top three contenders, Hive, Nest and Tado

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Hive

There are two thermostats in the Hive heating range: the Hive Thermostat and the Hive Thermostat Mini. The key difference is that the Hive Thermostat makes you set smart schedules and “boost” the heating on the physical device itself, whereas the Mini has some controls on the physical thermostat, to turn the temperature up or down, but you need the Hive app or voice control to work advanced features. Both can control central heating and hot water, with some boiler exceptions, including certain Worcester Bosch models. The Mini can connect to a door sensor, turning off heating when you leave. In addition, using geofencing through your phone, it detects if you’ve have left the house with the heating on and will send an instant alert to turn it off. It also boasts frost protection, identifying when the temperature drops below a certain level and warming your home up so pipes don’t freeze, and has a holiday mode function.

“One of the best features for tech lovers is that when Hive is paired with the Amazon Echo you can control your heating via voice control — welcome to the home of the future. However Hive doesn’t include a motion or light sensor — which Tado and Nest both boast as standard,” says Kelly.

Need to know

Suits homes of all sizes, but it’s recommended that larger properties install two thermostats — both Hive models allow this, in conjunction with Hive Radiator Valves — separating the space into multiple heating zones, so unused areas don’t have to be heated. Hive says professional installation is required for a multiple-zone system.

Compatibility

The Hive Mini works with Amazon Alexa and Google Home.

Cost

The Hive Thermostat is £179; the Hive Mini is available to new Hive customers for £119 or to existing customers already using a Hive Hub for £59, hivehome.com

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Nest

The big point about Nest — also known as “Google Nest” — is that it is “self-learning”, so it works out how warm or cool you like your home to be. It also uses motion sensors to work out if you’re at home, or even in the room, so will adjust the temperature for maximum energy and cost saving. It has a built-in holiday mode that allows you to schedule your heating so you know you’ll be coming back to a warm home.

“The biggest advantage of Nest over Hive or Tado is that its smart system learns your schedule so you don’t have to programme it every day — instead, it intuitively adapts to you,” Kelly says.

Nest can switch to an eco temperature mode — the Nest Leaf appears on the screen — to conserve energy when there’s no one home. If you’re looking to further lower your energy usage, you can set your thermostat to Eco Temperature when you’re in the house, as long as you don’t mind popping on an extra jumper.

“A handy feature of the Google Nest Learning Thermostat is Time-To-Temperature, which you can see directly on the screen,” says Nest fan Andy Kerr at Boxt, an online boiler company. “This feature will tell you how long it takes for your home to heat up to your desired temperature. You should have a play around with this feature, but whatever your favoured heat temperature, it shouldn’t take too long.”

Need to know

You can check your energy history in the Nest app to see what you’ve used every day. While away the long winter evenings comparing the figures to your smart meter.

Compatibility

If you’re wary of “everything going Google” this might be a sticking point. It works with Google Home, and can also be integrated with Amazon Alexa.

Cost

Google Nest 3rd Gen Wireless Heating and Hot Water Smart Thermostat, is £189, [screwfix.com](https://www.screwfix.com)

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Tado

German company Tado has been turning home energy heads recently, posing a threat to the established Hive/Nest rivalry. It claims to offer “the widest range of support for all heating systems and home types”, and works with Google Home, Apple HomeKit and Amazon Alexa. Another key stand-out feature is the energy management software, which lets you predict your month’s heating cost before the month is over and take energy-reduction steps if you fear you’re about to go over budget.

“You can also compare which room in your home consumes the most heat, and take action,” says Christian Deilmann, Tado’s co-founder and chief product officer. “We believe that a knowledgeable customer will be able to take actionable insights into their home energy management. You can even input meter readings and your tariff details to add extra accuracy.”

There’s a neat “open window detection” feature too; if Tado detects an open window in your home, it automatically shuts off the heating until you realise.

Need to know

Universal appeal. Tado claims to work in 95 per cent of homes across the UK and Europe, and will operate with underfloor heating, radiators or air duct systems, plus run heating for air source and ground source heat pumps.

Tado claims that 97 per cent of their customers install their own smart thermostats; it offers step-by-step in-app instructions for more 900 heating systems and boilers. Some companies offer installation packages, recommended if you’re unsure, so you’ll have protection should anything go wrong.

Compatibility

With Google Home, Siri, Apple Homekit and Amazon Alexa.

Cost

Wireless Smart Thermostat Starter Kit, £199.99. There is also a Wired Smart Thermostat Starter Kit, £179.99, [tado.com](https://www.tado.com)

