



ISTOCK

**Jonathon Savill**

Consumer journalist Jonathon Savill follows the high tech world of home automation.

## Smart Homes Update

Which home automation system is right for your project?

Jonathon Savill reviews the latest in smart home automation

**H**ome automation enables you to control your heat, lighting, sound system, thermostat, smoke alarm and burglar alarms from your Wi-Fi router. These can be controlled remotely so you can turn the heating on before you get home, or lights when you are away. This is all controlled by a central device or by your smart phone.

In the event of an internet failure, lights and thermostat are still able to operate, although in a fully automated home you will lose television and music. At least you can still be able to read.

### What's New?

There is a new impetus in home automation and it comes from a surprising supplier. Amazon is an online retailer of books and records but has become a major force in artificial intelligence, stealing a jump on companies like Apple and Google. Amazon has sold over five million of these devices, with its Dot, at £50, outselling its Echo, at £150. The only difference is the Echo has a built-in audio quality speaker and the Dot doesn't. Effectively these devices provide the central core that was missing. It doesn't do anything a smart phone won't, but it is mains powered and more convenient for everyday use.

Both Amazon units are triggered by the keyword 'Alexa'. They are constantly listening for this wake up word. Both Dot and Echo function at two different levels. At base level they operate as a very clever alarm clock. You can set an alarm using your voice and Alexa can tell you the weather, dollar rate, what day a certain date

will fall on, convert pounds to kilograms and a host of other things. You can also get it to play music, using a program such as Spotify, or carry a shopping list and reminders. This makes the internet a lot more accessible, because you can find information without picking up your phone or a computer. If you have an Android phone it will post to-do lists and appointments straight onto your phone, although it works slightly less effectively with iPhones.

At the next level it gets more interesting because it acts as a hub for the other devices in your home automation system. These include Hue lighting, Sonos speakers, Nest and Belkin, among others. They now interface conveniently and you can group activities together.

### Is it Easy to Use?

Setting up the system is not foolproof and it may take several goes to make it work. There is also a tendency for it to stop working if you add a new gadget. With Sonos Speakers you have to plug them into your router to initialise them. Hue Lighting needs a small extra router box that plugs into your home router. You then need to add each new light into the Hue system and then separately into the Alexa system. Rather annoyingly, you often need to type in the serial number of each lightbulb and it's not printed on the box. It is also tiny and you find yourself trying to read it in the dark.

On a cold morning you can be woken up by the Dot, which could have previously heated your house via Nest, switched on all the lights downstairs and Radio 4, which could be playing

softly as you come downstairs. And it can switch the coffee percolator on via a Belkin WeMo plug. If you hear a suspicious noise downstairs, you can turn on the lights and play loud music to scare any intruder away. And thanks to the Nest camera, you could have a video record of the event.

Alexa has two extra dimensions. One is a group of skills, like apps, that can help you find your phone or control your television. The other aspect is 'If This Then That' or ITTT. You can make a very simple three or four command line programme to, for example, lock all your doors.

Amazon units are by no means foolproof and don't have memory. So it may not recognise the command to turn off a light it switched on seconds before. And you need to learn from each other. Say 'Alexa', leave a pause and then state the command clearly. You can buy three Amazon Dots instead of one Echo and place them around the house. A good tip is to put them near door openings so they can be heard from multiple rooms. Plea to Amazon — please make a wall mounted device. We tested three types of device. They are Nest, Sonos and Hue. Let's be clear about this: there are competitors, such as Hive, for example, but we have gone with the perceived market leaders.

### Heating and Alarms

The Nest Thermostat is brilliant at £250 and adds a touch of class to any house. You can program it to switch your heating on and it can even learn when you're not home and lower the temperature. Of course you can set the temperature via Alexa or your iPhone. But the real brilliance of the Nest range is the smoke alarm. These retail for under £90 and communicate with the thermostat. At night they illuminate when you pass them and if you have ever fanned a smoke alarm with a tea towel because you made a piece of toast you're in for a pleasant surprise. These warn you before they trigger the loud alarm. But most importantly they turn off the boiler if they detect carbon monoxide, so they help you sleep better. And even in the tiniest detail their design brilliance shows up. In a normal smoke alarm four screws attach it to the ceiling. In the Nest there is one, allowing a precise turn to get it to exact straightness.

The newish Nest Cam has a 130-degree viewing angle and a glass lens with a digital zoom that can magnify the picture up to eight times,

allowing users to see fine details even from across the room.

### Lighting

Hue lighting works well but takes a little getting used to. It arrives as a base kit with a hub and three bulbs. Why three is a mystery. You can then replace your other normal white light bulbs for £14.99 each. They are driven by a small white box that is connected to your router. They can be controlled individually or in 'moods'. The good news here is that in the absence of an internet signal, they still work via a standard switch. There is a certain smugness in owning these, because not only can you turn on every light in your house via Alexa, the bulbs are only nine watts, so your entire house is lit by less than each of the 100 watt bulbs your neighbour uses.

### Music

Sonos makes speakers that stream music so it plays over your internet. Basically you can play something in the living room and sing in the kitchen or the bedroom at the same using slave speakers. The sound quality is awesome. Sonos 3 costs around £300 and Sonos 1 about £110 each. Sonos 3 has a mini jack input and this is crucial to make it all work together; currently it needs to be plugged into the Alexa unit by cable. Initially the software for the Sonos was frustrating. You were forced to drag all of your music into its menu and play it from there. At Christmas they released a software patch that lets you play straight from music services such as Spotify. Another future release will allow Sonos to be controlled directly from Alexa by streaming. Oddly, just as Sonos is due to step into the light, there are rumours about how well the company is doing. They may find themselves in competition with the speakers included in the Amazon Echo.

If you are a complete beginner and want to see these devices then a visit to John Lewis in Oxford Street is very helpful. There you can see the gadgets working together. The future of automation is uncertain except for a few pointers. It is extremely likely that Apple will release a competitor and there is also a Google device on the way. Apple has a strong record in taking current devices and selling more of them, such as they did with the iPhone. What Alexa has done though is to become the current defacto standard in the nascent home automation arena. **H**



### Netatmo Integrates with Alexa

Netatmo's Personal Weather Station and its accessories integrate with Amazon Alexa to enable voice-controlled climate monitoring. The Weather Station is designed to measure air quality, temperature, humidity, carbon dioxide and noise levels inside and outside the home.

### Contacts

**Amazon Dot, Amazon Echo**  
amazon.co.uk  
**Hue** meethue.com/en-gb/  
**Nest** nest.com  
**Netatmo** netatmo.com  
**Sonos** sonos.com