

The evolution of the smart kitchen with Innohome

Finnish company Innohome report on its award-winning third generation Stove Guard, a device that works out when the temperature of cooking is too high and potentially hazardous and turns off the source of ignition

It is nothing new to the Fire and Rescue Service that kitchen fires are number one in the list of fires in the home. A quick search on Twitter will reveal lurid pictures of burnt out kitchens serving as warnings to those in search of a late night snack after an evening in the pub.

And it is true the numbers have gone down over the years, with fires from cooking appliances showing an almost continuous fall of around 43 per cent from a peak of 32,000 in 2000/1. However, people still get injured and the fire and smoke damage to property has a real impact on people's lives.

One way around this is to look at better control of the source of ignition: the heat. If there was a way of cutting off the source of ignition when it hit a certain temperature and it did not involve human intervention, maybe that could reduce the number of cooking appliance fires.

Finnish company, Innohome, has done this by developing Stove Guard. Now in its third generation, in essence what Stove Guard does is works out when the temperature of cooking is too high and potentially hazardous and does something about it – it turns off the source of ignition.

The intelligent heat sensor in the Stove Guard and in Stove Alarm (see above) follows the heat but in addition also tracks the rate of increasing temperature. A steeply rising temperature is an indication of a developing fire hazard. The Stove Guard is a smart way to guard against kitchen fires because it responds before the formation of toxic gases and before a fire is ignited.

This is a really attractive idea: turn the electricity off if the heat gets too high, but learn enough about the cooking to know what too high really means. Added to this, the Stove Guard will cut off the electricity supply if the hob has been left on accidentally – the setting for this can be tailored to individual installations.

In a recent exciting development, Innohome's products will now be distributed in the UK by Sprue Aegis plc and made widely available along with Sprue's existing product range of smoke and carbon monoxide detectors. Stove Guard and Stove Alarm will continue to be available through existing resellers, Safelincs and Unicook (focused on the education sector).

There are real advantages to this approach for some of the more vulnerable members of



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communities, those more likely to forget that there is something cooking on the hob.

One example is Mike Lee who suffers from narcolepsy and had made several emergency call outs because of cooker fires. The Innohome system was fitted after North Lincolnshire Homes teamed up with Humberside Fire and Rescue Service to protect Mike in his home.

Since fitting it, Mike has not had to call out the Fire and Rescue Service. "I am delighted the Innohome Stove Guard system has been fitted. It's given Mr Lee his independence back," said Helen Wright from North Lincolnshire Homes "he can cook his own meals without fear of starting a fire."

More recently, in March 2015, Stove Guard was installed in Leonard Cheshire House in the Waterside area of Derry in Northern Ireland. Leonard Cheshire is a leading charity supporting people with disabilities to live independently.

It is not just older people or those with disabilities that can benefit from Stove Guard. Students are notorious for kitchen fires in shared student accommodation. In 2014, the University of Brighton trialled Stove Guard in 45 refurbished kitchens in its halls of residence. During the trial period, there was only one false alarm in the residential kitchens. At the same period in the previous year, these premises had

11 false alarm activations.

Andy Reynolds, Director of Protection and Prevention from East Sussex Fire and Rescue Service, said: "This technology is relatively new in the UK and we are very pleased the University of Brighton is working in partnership with us to help cut the number of fires and indeed false alarms on campus."

The trial period was considered a success and as a result, an additional 109 units have now been installed in the remainder of the University of Brighton halls of residence.

Unicook, a company specialising in fire prevention in student accommodation has supplied and installed Stove Guard at other Leonard Cheshire locations, YMCA and at several universities.

See www.unicook.eu for details.

Innohome is not new to the market. It was founded in 2005 to develop leading edge, intelligent safety devices for the home. Innohome's success is based on its unique technology, operational excellence, user-friendliness and simple installation. Working closely with fire officials and other safety sector specialists, Innohome is innovating and influencing the market and the standards that underpin it.

Innohome is the market leader for cooker safety products in Nordic countries with cooker safety devices now installed in over 120,000 locations around Northern Europe and in the United Kingdom.

Much of its work and experience has been in Norway where the installation standard NEK 400:2010 cl 823.421.01 requires that the power supply be disconnected if overheating occurs.

Norway may have been leading the way by mandating use of a standard to make kitchens safer from fire, but now the rest of Europe has caught up. EU standard EN50615 for cooker safety products was published earlier this year. Innohome Stove Guard is the first cooker safety product to meet the new standard, tested in a third party, accredited test laboratory.

Whereas Stove Guard requires installation by a qualified electrician, Innohome has also developed the Stove Alarm product and this can be fitted by anyone. It is installed by connecting the small device to the cooker hood with

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magnets or to the wall with screws. There is no need for any wiring or external power supply.

Stove Alarm is an intelligent, self-learning overheating monitor that detects abnormal situations such as a fast change in the temperature on the hob or a dangerously high temperature level. When either of these conditions occurs, the alarm will identify the hazardous situation early on and set off a high-pitched alarm. The alarm must be disabled manually by pressing the button on the Stove Alarm.

Over time the Stove Alarm learns about cooking habits so that it can adjust its sensitivity accordingly. It comes with a five-year battery and once installed requires no further maintenance.

In May, Stove Alarm was tested by Consumer magazine, *Which*. The reviewer writes that it is good for 'someone easily distracted or forgetful who leaves the cooker turned on and the cooking unattended, risking a potential fire. They need to be able to understand the alarm and act upon it'. The review concluded that it is 'was a useful safety alert'.

Innohome at FIREX International

There is a chance to find out more about Innohome during June, as the company will have a stand at FIREX International 2015. Stove Guard has been selected as one of FIREX's "5 Exciting Innovations". This builds on last year's success, as Innohome won IFSEC's 2014 Active Fire Product Innovation of the Year Award.

And this is not the only award that Innohome has won in recognition of its work in promoting fire safety. *FIRE* magazine's Excellence in Fire and Emergency Awards, supported by Babcock International, recognised Innohome's work when it presented Innohome with its 'Innovator of the Year' award in November 2014.

Smarter cooking technology is something all fire and rescue services should take a look at to make sure the number of kitchen fires really could go down even further.

