

<http://www.lfpress.com/2014/12/30/smart-house-systems-allow-homeowners-to-control-lights-and-heat-and-monitor-home-security-systems-using-a-smartphone-or-tablet>

Smart house systems allow homeowners to control lights and heat and monitor home security systems using a smartphone or tablet



By [Jeffrey Reed](#), Special to QMI Agency
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In the 1980s, homeowners were captivated by simple sound-activated switches that, with just the clap of their hands from the comfort of a living room recliner, turned lights and televisions off and on.

Flash forward three decades, and a homeowner sitting at an outdoor cafe in France can glance at their smartphone or tablet and tell whether the kids have left the front door open, and can even control the thermostat in their suburban London home.

The future is now when it comes to home efficiency. Everything from building a better basement wall to sourcing solar power is changing the way we construct homes. And with every living component of a home maximizing home comfort, technology leaves nothing to chance.

“The future is hard to predict,” said Bob Hoevenaars, president of Alarmtech Systems For Life, “but right now with things like Total Connect Systems, things like home security, heating and air conditioning, lighting and locks are all talking to each other. So the sky is the limit.”

Hoevenaars speaks of Honeywell’s Total Connect smart house system that can be remotely monitored with an app. Whether a door has been opened, a valuable has been moved or a flood has been detected, you can know right away. All you need is a laptop or mobile phone to stay in the know and stay in control. It results in energy savings through thermostat control, monitored home security, control of lighting and remote video monitoring.

“An alarm can go off and send you video if your kids come home and turn off your home alarm system,” Hoevenaars said.



Bob Hoevenaars runs the home and office security company Alarmtech on Huron St. A control panel for an alarm system by Honeywell, left, can accept verbal commands. (Mike Hensen, The London Free Press)



A control panel for an alarm system by Honeywell (Mike Hensen/The London Free Press/QMI Agency)

With smart meters installed for London Hydro’s 143,000 customers, a whole new world opens up through a monitoring hub called Green Button. Once a customer signs up for [MyGreenButton.ca](#) through their MyLondonHydro account, new applications are available to help save and manage electricity. Part of the Green Button system is California-based Bidgely that tells you how much power you’re using, what’s using electricity (for example, a dishwasher), and when electricity is being used. Information is accessed online at the London Hydro website, and e-mail alerts are forwarded if unusual power usage patterns are detected.



A camera that is wi-fi or ethernet connected and is able to swivel and pan 360 degrees. (Mike Hensen/The London Free Press/QMI Agency)

“It’s very convenient for our customers because they can log on at any time and view hourly, daily, weekly and monthly usage,” said Luke Seewald, director of metering services for London Hydro. “It’s no longer necessary to wait until your bill arrives at the end of the month.”

In addition, London Hydro is working with Ottawa-based Energate to offer remote online control of home thermostats via a mobile app.

High-tech gadgets monitored and controlled via smartphone apps may be sexier than the basic building blocks of a home. But from the basement to the rooftop, high-tech products and building methods are just as important to building a better mousetrap.

Doug Tarry Homes in St. Thomas is a Canadian leader in terms of embracing innovation in the home-building industry. Director of marketing Doug Tarry points to three elements among his company’s cutting-edge building methods making life more comfortable for homeowners.

In fact, comfort is the key, according to Tarry. “You can make a home super energy efficient, but if it doesn’t look good, no one is going to buy it. So a home has to have function, form and esthetics all in one package. It’s about durability, and more importantly customer comfort, as well as cost,” Tarry said.



Doug tarry Homes in St. Thomas. (Mike Hensen/The London Free Press/QMI Agency)



Jason Small, the quality control manager for Doug Tarry Homes in St. Thomas shows the Roxul insulation and high tech moisture barriers that prevent condensation that they use on Tarry homes. (Mike Hensen/The London Free Press/QMI Agency)

With about five years research already in the books, Tarry said he’s working on a modification to the national building code that would make it mandatory to build a better basement wall. In fact, he’s already building new homes with his Optimum Basement Wall, a system designed by Doug Tarry Homes in conjunction with ROXUL and with the support of Building Science Corporation and Building Knowledge.

“Consumers today expect their basements to be as usable as their above-grade floor space, but the conditions are completely different. We realized that the current building code is leading to far too many basements with mould and moisture issues. The problem is the vapour diffusion in the wall,” Tarry said.

Doug Tarry Homes has modified its original ROXUL ComfortBoard and ComfortBatt wall system to include a strip of CertainTeed Smart Membrane on the top 1/3 of the wall.

The membrane prevents vapour from entering the wall from the home in winter. In summer, the membrane allows vapour to escape from the wall into the home, reducing vapour collecting on the wood studs, Tarry said.

Another innovative technique from Doug Tarry Homes is the inclusion of its Right-Sized Furnace. “In today’s modern homes, furnaces are way too oversized for what the house actually needs. The problem is, it’s leading to temperature differentials within the home,” Tarry said.



Alizé, the variable speed outdoor cooling unit of Dettson. (Mike Hensen/The London Free Press/QMI Agency)



The gas furnace Chinook, designed and manufactured in Quebec by Dettson Industries. (Mike Hensen/The London Free Press/QMI Agency)

He has partnered with Quebec-based Dettson to build new homes with a Chinook furnace, a fully-modulating unit standing only about 75 cm tall. "This is what the furnace of tomorrow is going to look like," Tarry said.

Another element he's excited about is building solar-ready homes. This includes five-centimetre C-vac conduits from mechanical room to attic, to allow for future thermal and photo voltaic installations. Pre-installed plumbing connections allow for a less disruptive future solar hot water installation. There's pre-wired electrical at the location of the future solar hot-water tank.

Roof and mechanical room layouts showing future solar panel and hot-water tank locations are also provided to the homeowner.

"We believe that by the end of the decade the cost of electricity will exceed the cost of rooftop solar panels — it may soon be cheaper to create your own electricity than to buy it from a utility," Tarry said.

Today's new homes don't yet look like those in the Jetsons' futuristic neighbourhood. But as Hoevenaars said, the sky is the limit.



Electronic control panel of the Dettson furnace. (Mike Hensen/The London Free Press/QMI Agency)