

GREEN TECH THE SERIES COLUMN FOR SEPTEMBER 28, 2016  
HEADLINE: SMART KITCHENS ARE HERE!

The modern kitchen has seen little innovation over the last 40 to 50 years. In fact, after Fred Wolf invented the first modern electric refrigerator in 1913, the overall concept has not changed much. They are larger, more energy efficient and water dispensers are popular, but the function, keeping food and drink cool, has not changed. Same goes for the first electric stove, invented by a Canadian, Thomas Ahearn, in 1896. The stove heats up, boils and cooks your dinner as you watch it. Microwaves arrived in the 60's and dishwashers about ten years later. Other than that, until more recently, not much has changed.

Technology has already crept into some kitchens by means of smart phones, which provide recipes and meal preparation suggestions. One US survey notes that about 25% of cooks in a kitchen are now using a tablet or phone to help with food preparation. As well, advancements in kitchen design, along with innovative appliances are flowing into the marketplace today. Interconnecting the operation of your stove, individual cooking appliances and the ability to monitor what is in your refrigerator are but a few of these advancements.

With advancements in devices that monitor dietary issues, smart kitchens are going to make us healthier. One such device that is coming to the market later this year is the "Nima" sensor. This pocket sized, portable tester detects gluten in food, up to 20 PPM in about two minutes. If you have a question as to the food you are eating, you simply take a tiny sample from your plate, inset into the device and wait. If it smiles at you, you know it's under that level. I did not realize how many people are sensitive to gluten until we opened Circa 1894 B&B and Spa last fall. I can see the value of this device when dining out. [www.nimasensor.com](http://www.nimasensor.com) is their web site for more information. Another device is called the "Tastetro" spice system. I admit to being limited in kitchen skills, so this original idea can take the guesswork out of how much spice you need and what kind to use. You select the food you are preparing and the unit mixes the spices for you. Working from their app and web site you can apply a blend of spices with the right mix every time. Go to [www.tastero.com](http://www.tastero.com) for more information.

Growing your own herbs and greens for use in your kitchen has always been a challenge. A company called "SproutsIO" has developed an app controlled system that integrates a growing device, seed renewal disks and web support. Watering can be as little as once a month and sprouts can grow year round produce for your kitchen. Go to [www.sprouts.io](http://www.sprouts.io) for more information.

Refrigerators are not far behind in technological advancements. Samsung's "Family Hub" refrigerator is the first smart fridge, but it will only be time before LG and Whirlpool bring their smart fridge to the market. The Family Hub features a 1080p touchscreen, custom cooling in set zones along with the "necessary" ice maker. The fridge has cameras located inside it that take a photo every 10 seconds after you close the door, with the touch screen outside you can look in without opening the door. You can mark package items with expiry dates clear to read and then using your smartphone, review the inside of the fridge as you are doing your shopping at the grocery store. Typically Samsung, this fridge is also loaded with apps for weather, a timer; it's an endless list of features. One feature that may slow the buying process down is that, right now, they are only available in the US at \$5799.00. Knowing Samsung, that won't be for long.

If the Samsung fridge is not in the budget, as would be the case for most homeowners, another advancement that has become convenient and reasonably priced is vacuum sealing your food. While vacuum sealing has been around for a while, the equipment was bulky and expensive; not so now. These machines are on the market for under \$400.00. These counter top sealers dramatically slow down deterioration of your food, adding 3 to 5 times the life span to your food compared to conventional sealed plastic containers. Vacuum sealing dry food, like sugar or flour, in smaller amounts adds months and sometimes years to their life span. Foods that are high in fat and oil will not become rancid, as vacuum sealing eliminates the oxygen that causes this off taste in food.

While stoves are not advancing as quickly, LG has one with a monitor for baking and temperature sensors and auto controls are just around the corner. One advancement that is available right now that can be retrofitted to most stoves is the "Inirv" react safety device. Cooking causes nearly 45% of all home fires and close to 40% of all injuries from a fire are related to cooking. In the US, 17% of all deaths are related to cooking equipment related home fires. This neat device is a two-part package. One portion attaches behind your stove on the wall and the other one retrofits your stove control. Using a combination of sensors and electronic controls, the Inirv unit will turn off your stove before a hazardous situation happens.

Among the innovations, there are always some original ideas that I question in regard to their long term viability. That said, I questioned the single pod coffeemakers and most every home we are in now has one. The "Flatev" falls into this category for me. It was invented in Switzerland and uses a pod system to create on-demand tortillas and flatbread. Maybe the Swiss inventors have

something here; time will tell. If you are curious go to [www.flatev.com](http://www.flatev.com) for more information.

Cam Allen L.I.W. NHI ACI can be reached at [alltechconsultinggroup@gmail.com](mailto:alltechconsultinggroup@gmail.com) for comments and questions.