

'Smart' gadgets bring push-button homes within reach

By **Farhad Manjoo**
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I suspect that our species has been longing for "smart homes" since pre-historic times. John Q. Caveman is in one corner of his cave, about to retire after a long day of gathering (he's never been the hunting type), and suddenly, a needling worry becomes lodged in his mind: Did he put out the fire in front of the cave?

Millennia later, we are caught in the same fix. Do you drag yourself out of bed and down two flights of stairs to check if you turned off the space heater in the basement?

Home automation was supposed to have solved this. For decades, technology companies and futurist magazines have teased us with visions of houses in which the lighting, temperature, TV and audio system could be controlled from a central unit.

But while much of the necessary technology exists, easy-to-use smart-home systems have always been the province of the ultra-wealthy.

The good news is that the prices on that other route to a smart home, customized systems installed

by professionals, are slowly starting to fall. Some upper-middle-income people may already be able to afford a professionally designed setup that controls at least an entertainment system, or maybe one that controls a few items, like the TV, the lights, the thermostat, the door locks and, say, the coffee maker, while others may be able to afford them soon.

Randy Stearns, the president of Engineered Environments, a Bay Area company that sells professionally designed automation systems, showed me one of his smaller projects, the automation of an entertainment system for Bill Weeks, a retired real estate executive who lives near San Francisco.

Weeks' wall-mounted TV was connected to a rack of other audiovisual equipment in a nook carved out of a nearby stairwell. There were no visible wires; all the connections were hidden behind a wall panel. Weeks could control his entire system with a single remote that had been configured to his specifications by one of Stearns' technicians.

"We wanted to make it obvious for everyone who

came by," he said.

He had to pay for that simplicity, though. The total cost of Weeks' configuration, including equipment and installation, was \$4,600.

Weeks' bill is representative of current prices; professionally installed smart-home systems run from a few thousand to tens or even hundreds of thousands of dollars, depending on the scope of the job. But Dave Pedigo, senior director of technology for the Custom Electronic Design and Installation Association, a trade group of home theater and home automation installers, said prices for custom automation kept falling, and that one major reason was the advent of touch-screen devices like the iPhone and iPad.

"The onslaught of Apple and Google devices has really been changing this market," Pedigo said.

To illustrate Pedigo's point, and to give me a taste of what less-affluent homeowners might be able to enjoy in coming years, Stearns took me to a sprawling house in the Bay Area suburb of Atherton, where his firm had installed an extensive home-

automation system.

It included more than a dozen televisions, among them a 103-inch screen in a dedicated home cinema, as well as a whole-home audio system, with speakers mounted invisibly in the ceiling. There was also an integrated lighting and climate-control system, so that the family could, say, keep tabs on the temperature in the wine cellar while working out in the home gym, on the other side of the property.

Here is where the story gets back to the rest of

us: This family commands its princely system, which cost \$400,000 to design and install, from something as simple as an iPad (or, in this case, any of the seven iPads conveniently located in various parts of the house). Before the advent of touch-screen phones and tablets, Stearns said, he would have used custom-made controllers for this automated system – and those devices cost several thousand dollars each. But the iPad controller is \$499. And because the iPad can be customized with apps, it can be made to control lots of companies' systems.

