## Just a Little Investment for a Lot of Comfort

# The newest HVAC systems offer loads of comfort control over your personal space



By Gordon White

Did you know that there's a way for homeowners to save on utility bills, and at the same time gain complete control of their indoor environment?

Most people are used to thinking about an air conditioner as the box outside that keeps their house cool in the summer. Maybe it causes a slight annoyance when the system turns on and air starts blasting out of the vents in their home. But new, cutting-edge technology has changed what HVAC technology is capable of and what homes will look like in the future.

This might be surprising. It is common to think of smartphones and vehicle technology as areas where advancement is constantly driving their industries forward, but HVAC is the exact same. Intelligence and automation are being used not only in vehicles, but also in home comfort technology that is accessible today.

#### Remote Control, Communication, and Diagnostics

The newest, most cutting-edge HVAC systems feature technology that allows them to be controlled and monitored remotely. If a homeowner is returning from vacation and the house will be hot, they can go on their smartphone and adjust the temperature. The air conditioner will turn on so that when they pull their car into the driveway, they will be unloading their suitcases into a cool, comfortable home.

Should the homeowner choose, they can allow their system to be accessed by a trustworthy HVAC contractor. The contractor can view the system's data points remotely, seeing whether the system is healthy or in need of maintenance. A system can even offer alerts, pointing out when parts (such as a filter) are in need of replacement or service. This can help prolong the life of the HVAC system.

Cutting-edge systems even offer diagnostic codes, like cars do, so that a technician will immediately know what is wrong with a system that is not operating correctly. When paired with remote technology, a technician can view the problem and system remotely and potentially identify the solution before they even come to the house. This can help ensure they bring any replacement parts needed on their first trip, instead of having to come back with replacement parts.

#### Variable Speed, Zoning, and Savings

But high-end HVAC systems offer more than just easier control and savings. They offer a dramatic increase in the comfort of those dwelling in a home. Many of those high-end systems, using variable speed technology, can adjust how much air they cool at a given time. This means that if a home only needs to be slightly cooler, the system won't turn on full blast, but will only add a slight amount of cooled air to the home. Those variable speed systems operate much more quietly, sometimes almost silently. Because these systems can control the airflow with great specificity, they can use integrated intelligent technology to operate as efficiently as possible. This means lower utility bills for the homeowner.

In addition to this, homeowners can incorporate zoning, which allows different sections of the home to be maintained at different temperatures. Maybe a child likes their bedroom cooler than the rest of the home or the parents want to drop the temperature of everywhere except their bedroom overnight. This too both saves money and improves comfort. For example, if only the home office needs to be cooled during the workday, a homeowner doesn't need to spend the money to cool their entire home.

### **Delivering a More Comfortable Home**

Technology could revolutionize the comfort people experience in their dwelling places. High-end, cutting-edge HVAC systems give homeowners unprecedented control over their personal space. Not only can homes be cooled or heated efficiently, but these technologies can pair with ultraviolet technology to improve air quality. They can be paired with humidifiers/dehumidification to keep the moisture in the air at ideal levels for health, or be paired with systems to bring in fresh air from outside.