8 Questions you Must Ask before Hiring an Electronic Systems Contractor

Once you decide you would like some form of electronics system, job number one is finding the right company. The Technology will only be as smart as the contractor you enlist to do the job…

Mike Holmes – Holmes on Homes "80% of contractors either don't know enough or don't care enough".

It's even worse in the electronic systems industry:

- no barrier to entry (all you need is a vehicle, a few basic tools and a business card
- virtually no government oversight (only a basic electrical inspection that is not helpful)
- no school system graduating trained technicians (electricians are taught ZERO about electronics systems)

See our Before and After Photographs for further proof…

1. When it comes to electronic systems, what are some things to should keep in mind as they build?

The beginning stage of the design/build process is the time to think about wiring for connectivity and designing your space to account for your future needs. As with all the people working on your project, they **MUST** be properly trained and certified. The electrician is trained to do electrical work, the plumber to do plumbing and the carpenter to do carpentry. Modern electronic systems are much more complex than electrical systems, proper certifications include:

- Certified Electronic Systems Designer
- Certified Electronics Systems Programmer
- Digital Media Engineer
- Certified Electronic Systems Installer

2. What is smart home automation/integration?

This refers to the integration of multiple electronic systems and devices through a central control system. These systems and devices *may* include media rooms, home theatre, lighting control, multi-room audio, HVAC control, security, video cameras, Smart Phones, iPads and more.
Computer networking is also part of these systems. Modern electronic devices are designed to connect to the home network, which increases network demand and will lead to problems if not properly designed.

A certified electronics system designer is trained on proper network design; your electrician typically is not. Properly designed these systems add convenience, cost savings and simplicity; poorly done they do the opposite.

3. What are the benefits of these systems?

Most consumers who seek out integrated home technology solutions view these systems as a way to save time and spend more quality time with their families. Most customers invest in home electronic systems for the benefits, not for the sake of owning technology. Be on the lookout for systems that are proprietary – Sonos and Nuvo are popular but "closed" systems. That is, they are not designed to work very well with other brands. We recommend our client's stay away from proprietary systems because over time they will become obsolete and will need to be replaced entirely; there is better options.

4. Will my home technology become obsolete quickly? How can I ensure my systems stay up-to-date?

A highly trained systems designer will be able to design a system that is practical for today's buildings, and ready to take advantage of new innovations as they arrive. The best electronic systems contractors (ESC's) stay current on emerging trends through continuing education as well as open lines of communication with leading manufacturers. This up-to-date knowledge allows them to deliver technology that will provide convenience, security, and entertainment for years to come.

5. How big is the home integration market?

In the US, a 2011© study; there were an estimated 20,000 to 22,500 companies in the U.S. that are installing CEDIA portfolio products in residential environments. The residential electronic systems industry represents an estimated $13 - $14 billion in annual installation revenue, based upon the estimated number of installation companies in the industry. CEDIA is the Custom Electronics Designers and Installers Association. www.cedia.org

6. Many items in the home can be connected to an automation system.

Almost any electrical or electronic system: window coverings (shades and blinds), alarm systems, HVAC (heating, ventilation and air conditioning) systems, entertainment systems, irrigation systems, pool or spa elements such as pre-heating and pump failure notification, security cameras and much more.

7. Should My Electronic Systems Contractor Be Certified?

Anyone can claim to be an expert, but actual training and certification should be the *Minimum* qualification you look for.

- The highest level of certification in Systems Design is a CEDIA Certified Electronic Systems Designer. It requires years of experience to qualify to write the exam, (overhalf of the people who write the exam fail on the first try). It also requires on-going training to maintain the certification like many other professions.

- In systems programming the highest certification is Crestron Certified Programmer. It takes at least 5 years of experience, multiple training courses and a rigorous exam spanning at least 4 weeks.

8. What about wireless systems?

Wireless works perfectly for remote controls and internet access, but for other systems it does not work at all. Speakers need speaker wiring if they are to be installed permanently, and every single piece of technology needs power, so in fact nothing is completely wireless. A blend of wired and wireless is always the best solution.

Home automation can make everyday living a bit easier - and even safer.

Multiple systems can be connected to a central system that enables control from within the house as well as remotely from a computer, smartphone or tablet. Applications for home automation systems include:

Lighting Control

- An automation system can turn on the outdoor lights 15 minutes before sunset so you never arrive home to a dark property. More complex logic can allow the system to execute commands based on certain conditions; for example, "if this light sensor is triggered and the time is between 11 p.m. and 5 a.m., then turn the light on to 50 percent power."

HVAC

- Your heating, ventilation and air conditioning system can be automated to save energy by automatically raising or lowering temperature set points not just based on based time of day, but based on the amount of sunlight coming through the windows and using occupancy sensors – no sense heating a room no one is in.

Outdoor

- Your system can help manage the lawn irrigation system. It can also allow you to pre-heat your spa or be notified of a failure in your pool's pump. With a unified system, sometimes you do not need to buy the fancy optional controller for the spa, instead you can use the home automation system and amortise its costs over multiple sub-systems. Lawn sprinklers are a good example of this.

Entertainment

- Your system can be set to welcome you home from work with your favorite streaming audio channel playing in the kitchen. Or, call up your favorite party playlist at the press of a button, turning on multiple rooms to a pre-set volume level that you can still adjust on the fly.

And More...

- Motorized window blinds can be set to raise and lower at specific times, or in reaction to the amount of sunlight coming through the windows. Turn on an electric fireplace from another room in the house to get the room warming before entering, or turn it off when you turn on the TV mounted above it.