

HOME

# Smart Home

Life under control

## JEWEL OF THE EMERALD ISLE

The perfect harmony of history  
and high-tech hotel luxury

## OLD ENGLISH PUB PACKED WITH SMART HOME SURPRISES

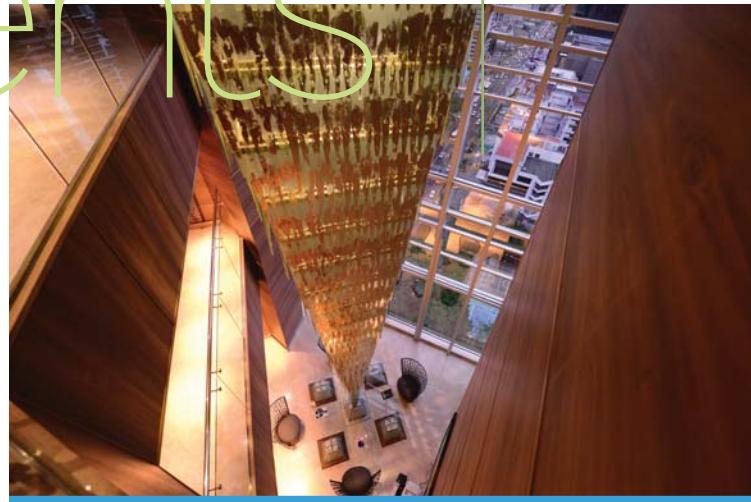
Biometric technology in a bar  
befitting of Bond. James Bond.

## SMARTS ON THE SKYLINE

Panama City monument a high-tech  
testament to innovation

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HOME SMART HOME

# editor's note

One of my oldest and fondest memories as a child took place at the theater. From the moment I stepped up to the ticket box, the distinctive smell of buttery goodness wafting through the window would remind me that for the next few hours, I'd be transported into another world.

The *Reel Theater*, before its demolition, was once situated in a small town outside of Salt Lake City, and I would frequent it often when visiting my immigrant Greek grandmother during summer breaks. With the most tempting concessions in the state (biased opinion) and a lineup of the very best arcade games you could get your hands on, my cousin and I spent much of our childhood screening favorites like *The Sandlot* or fixed behind a classic Midway *Mortal Kombat* cabinet. It's almost as vivid to me in my aging memory as it was in my adolescent reality.

But nothing captivated me quite like the robust sound; it wasn't like listening to my Walkman or the family room tube. It was—in a word—enveloping. I've always vowed to replicate this experience in my own home one day, and this particular issue of *Home Smart Home* parallels the timing of our own theater planning process. As we run wires for Dolby Atmos and begin comparing projectors and testing out seating, I'm anxious to see what cine-magic will transpire in just a few, short months.

After all, from the mouth of the great George Lucas, "The sound and music are 50% of the entertainment in a movie."



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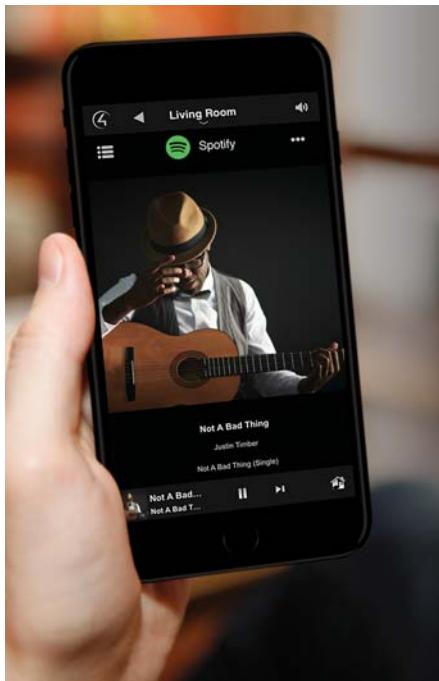
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# New & Noteworthy

## NEW STREAMING MUSIC

...music to your ears

iHeartRadio, SiriusXM, and Spotify join the roster of streaming music services that come standard for every new Control4 smart home or system upgrade. The new services join other favorites including Deezer, Napster, Pandora, TIDAL, and TuneIn. As always, homeowners can begin streaming music from all available services for which they have accounts—instantly from a Control4 Touchscreen, handheld remote, by voice, a programmable keypad, or the Control4 mobile app\*—and fill the entire house with their favorites!



## SMART PEOPLE PERSONALIZE THEIR SMART HOMES

Homeowners everywhere are reaping the benefits of a professionally-installed smart home system coupled with the ability to do a lot of customization all on their own. Here are a few ways they are using **When >> Then** to personalize what happens at home.

*"I wanted to know when my contractor remodelers were arriving in the mornings. So I jumped into When >> Then, and now When the front door is unlocked, Then my house sends me a push notification. Only took me two minutes to set up!"*

-Becka P.

*"Programmed a button in my kitchen to dim the lights to 40% and kick on my wife's Spotify playlist when pressed. She loves it."*

-Terrance B.

*"My teenagers love to leave their lights on. One night I programmed their bedroom speakers to play the song 'Don't Worry Be Happy' when they turned on their lights. For a few days, they'd get ready for school in the dark, just to avoid it. I'm sure we saved a little on power that week."*

-Bill S.

## CONTROL4 AMAZON ALEXA SKILL—NOW AVAILABLE IN CANADA!

It's about time, eh?

The wildly-popular voice service that powers the Amazon Alexa family of devices is now available in Canada. Control4 homeowners can now enjoy hands-free control of thousands of devices through simple and intuitive voice commands.

See the possibilities at [control4.com/alexa](http://control4.com/alexa).



\*All new services listed require an annual 4Sight subscription license. Some may also require the most recent operating system and/or an EA-series smart home controller. Reach out to your dealer for more information.



## Smart Home Surveillance

- P2P secure connect technology
- Live view and playback at your fingertips
- 4K surveillance to match your lifestyle



LILIN uses, integrates and supports high quality partners, products and platforms.



Microsoft Edge



Redundant power option



Surveillance Hard Drive



Linux based



HTML 5



Windows 10



Chrome



RAID Redundancy



Mac OS X

# Add Magic to Your Movies

*Tips to creating  
a striking cinema  
at home*

Crystal Watts

Since the earliest days of cinema, moving picture shows have provided a refuge from the reality of ordinary life. There's something undeniably special about sitting back and seeing the room fall into darkness as voices lower to a whisper and the credits begin to roll.

The mystery behind the movie magic will always be a part of its charm. But the rules for replicating this experience yourself don't have to be such a secret. Today, armed with the latest technology and a little DIY ingenuity, you can bring Hollywood to life for much less than you might have imagined.

## STARTING NEW OR STARTING OVER?

If you can start new from scratch and include blueprints for a theater in the initial construction, you're already one step ahead. Collaborate with your building contractor and create a custom-purpose room that fits seamlessly with the style, character, and function of the rest of your property. When building your theater from the bottom up, you can plan ahead to include the wiring you'll need for lighting, audio, and video before the walls are even built. And if you'd like to mount a retractable projector, install professional-quality cinema seats, or add extra sound-absorbing insulation. These features can be better accommodated early on, as well.

Most experts would agree that the basement is the best area of the home in which to replicate the traditional theater experience. This is because, for optimal sound and video, a dedicated media room should be as isolated as possible—think thick

concrete walls, few doors and windows, and just enough room to seat everyone comfortably. Your space should be constructed with acoustics in mind and to the ideal dimensions for viewing.

Starting over with a retrofit of an existing garage, attic, or side room, however, will require a bit more creativity.

You might think that the technological equipment you buy and furniture you put in the space will define your theater experience. This, however, is not the case. Making an effort to optimize your room's existing physical acoustical characteristics will go the furthest toward creating a truly immersive environment, and it begins with understanding the shape of your room and the dimensions you're working with. Bigger rooms mean deeper base, and that's never a bad thing. But smaller spaces make it easier to create an intimate, sealed-in soundscape.

To begin, look carefully at the room you've chosen to remake into a theater. When creating the perfect home system, you'll want to plan out ahead of time how to maximize every inch you have to work with. The placement of windows, walls, and other furnishings will significantly impact the acoustics and operation of every component you choose to install. Draw up plans to help avoid any construction challenges before you begin tearing down (and into) your walls. Confirm that your room has the space to accommodate a 100- to 120-inch screen, and the throw distance to match your projector to that screen. And, of course, you'll want to make sure that the space can become completely dark when it's time for the movie to begin.







Last but not least, it's wise to "future proof" your system and design it in such a way that makes it easy to upgrade components down the road. By introducing two-inch cable conduit into the pre-wire planning phase, you can help future cables, like fiber optic, fit through finished ceilings and walls without effort.

Now if you're at the design stage, but aren't sure what technology you need to include in your new home theater system, know that this year most products are "smarter" than ever before. There's plenty of new audio/video equipment and theater trends that hit it big in 2017. Here are some suggestions to start your shopping list:

## ELECTRONIC CONSIDERATIONS

Selecting the right electronic equipment will elevate your movie-watching experience and help you replicate all the timeless romance, drama, and mayhem of the silver screen. You don't need to spend a fortune outfitting your room with the latest and greatest components; you just need to spend wisely. And don't forget your tape measure—whatever equipment you buy, you'll need it to fit through the door!

### Audio

Start from the sound up. Make sure to budget for all acoustical components you'll need to ensure a three-dimensional audio experience.

You don't have to be an audiophile to appreciate the value of a strong sound system. When it comes down to it, the most important aspect of a film is the dialogue. Every cent spent on a surround sound speaker system can be well worth it!

Depending on how you've chosen to design your theater room, you may have room to add more speakers and possibly more than one subwoofer. But for a "traditional" Dolby Digital 5.1 system, you'll need five speakers (front and center channel speakers, plus left and right surround speakers and one decent sub). The placement of the subwoofer and the speakers in your room will have a significant impact on sound quality and bass, so give yourself enough room to move everything around a bit. A longer



cable (25 ft. / 7.62 meters or so) will help here, and for speaker wire, a 250-ft. (76.2 meters) roll of 16-gauge wire should do the trick. Ideally, your left and right front speakers should be placed at an identical angle away from the central seating point, equidistant from both the audience and the screen. Allow a clear path for the sound to travel; if you can't see one or both of them, sound is being blocked. Place your surround speakers on both sides of the seating area just above ear height. The location of the subwoofer is the most flexible—just be sure to avoid placing it directly in a corner. Don't be afraid to fine-tune its placement as you begin putting your theater system to use.

### Visuals

There's nothing like sitting in the glow of a crystal-clear movie image, and with little more than a pitch-dark room, a projector, and a screen, you'll be able to achieve a fairly adequate visual presentation. But with today's technology moving at breakneck speed, there's no reason to not look for devices that deliver the best and brightest in modern movie viewing. Some of the newest models will even let you go 3D.

A projector and a large screen will allow you to go big, but before you plunk down the cash for a new projector, be sure to calculate exactly what's best for your room. It's wise to go online and choose a model that offers a winning combination of picture quality, light output, and price. And while a great projector may come at a steep cost up front, it will give you and your audience the best possible box office experience.

Now, when it comes to the projection screen, you essentially have two options: fixed and retractable. A fixed screen is the superior choice for several reasons. First, a fixed screen with a frame border (ideally covered in soft, black material) will help everyone's eyes focus on the bright moving pictures and amp up the perceived contrast of the image.

Your audio/video receiver might not be the hottest piece of equipment, but it's the hub of your home theater—the brains of the operation. Your amplifier and receiver will tell your sound system what to do and how to sync up with what's on screen. Today's

selection of home theater receivers offers all the fundamentals: 5.1 surround sound support, 3D compatibility, and more user-friendly functionality.

Lighting is the last critical component. Control4's smart lighting line will raise your home theater's IQ by providing wireless dimmer, switch, and keypad functionality. Gone are the days of getting up to switch lights on and off after the movie has started. A connected light system will allow you to not only control the color and brightness of the bulbs, but also switch up the room's ambiance right from your remote or the smartphone in your pocket.

### Extra Accessories

An expansive theater setup often leads to a tangled mess of wires, but this can be avoided with some simple cable clamps and ties, a cord organizer, and cable tunnel kit. Be sure to purchase a power protection device as well; in case of a sudden electrical spike or a power outage, you'll want to be prepared.

### SEATING, FLOORING, AND MORE

If you're going to invest in quality audio/video equipment, it only makes sense that you'll also want to customize the room's flooring, seating, and decor for acoustical balance and ease of viewing.

A perfect theater experience encompasses all five of the viewer's senses: sight, sound, touch, taste, and even smell. From comfy theater seats to freshly popped popcorn, why shouldn't you have it all?

First, make sure your room's flooring treatment will be an asset to your new sound system. Carpeted floors are best for absorbing big, powerful bass, as well as for helping to control and clarify higher frequencies. And in your dedicated theater room—as we've mentioned before—it's critical to have total control over ambient light. Any glimpse of the sun risks washing out the image on screen. You have a wide range of options when it comes to sound and light proofing your space. Thick drapes

work double duty by working as sound absorbers as well as sealing out sunshine. And for the ceiling, soundproofing acoustic deadening sound tiles are an inexpensive way to minimize as much outside noise as possible.

Now you can consider different seating possibilities. Shipping pallets are a terrific and inexpensive option, but you'll need space to set them up the right way. Once they're in place, however, you can fit DVDs, books, and magazines into spaces on the side for additional storage. If you've got a bit more room in your budget, you can look beyond DIY seats and max out on lounge recliners, typically with cup holders, foot rests, massagers, and heat all built in. Bottom line is, while there are a few constraints in how you plan your seating style, don't be afraid to follow stereotypical conventions. Bean bag chairs, even inflatable couches, are making a comeback. Just be sure that any type of unconventional seating you add won't negatively impact the room's acoustics or block anyone's view!

In a dedicated home theater space, you can go as wild as you like with the decor (Lava lamps? Shag rugs? A cheeky life-sized replica of the Gojira monster?), but if your guests don't share a passion for retro 60's ambiance (or anything else your humble heart desires to hang on the wall), be sure to have another secret weapon at the ready: salty, sugary, irresistible movie snacks. Any truly epic home cinema will provide the audience with delicious concessions to accompany whatever's screening that night, whether it be a film club viewing of Citizen Kane or the debut of a new Minions flick. For this, use a little imaginative effort to assemble a snack bar that can hold your preference of food and beverages. True connoisseurs should consider a margarita machine, a home soda fountain, or even a beer tap.



## VIDEO DISTRIBUTION

Finally, you're ready to sit down with a cold soda, your favorite film treat, and enjoy the show. When your home theater system is "smart" enough to connect to a myriad of other products in your home (such as the shades, security system, and door locks), you can put your mind at ease and lose yourself in the moment at hand. A single tap on a Control4 touch screen can start or stop the movie in an instant, if needed, and connect you to other audio and video devices around the home.

And wouldn't it be even more convenient if you could experience the pleasure of your audio and video media in every room? With Control4's multi-room video solutions, every member of your home audience is able to enjoy the same film you're watching in any room of the house. Using one remote, you can distribute 10 HDMI sources (satellite/cable boxes, streaming media, media players,

or gaming devices) to 10 video display locations in crisp, clear 4K HD.

An unbeatable home theater is within reach, and the latest technology can provide for intelligent solutions for both new construction homes or retrofit installs. Armed with a little research and simple DIY skills, it's possible to create a killer home theater in less than the total run time of *Gone with the Wind*. ■



# TRIAD HOME THEATER

## CAPTIVATE ALL OF YOUR SENSES

The magic of a truly riveting home theater is a combination of sight and sound so realistic that you feel embodied in the film. Added to a massive screen and projector, Control4 and Triad Audio solutions make your home theater experience far superior than going out to see a movie.

With one touch, fire up your Dolby Atmos® system, queue the surround sound, drop the screen, and dim the lights. All you'll need is the popcorn.

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# The **BEST SEAT** in the House

*Smart, stylish, and  
comfortable seating  
for your in-home  
movie marathons*

Lisa Montgomery

A home theater should feel like a special destination in your house—the one place you can retreat for a couple of hours to escape from reality and be transported into another world. The place you like to visit frequently with friends and family to enjoy the latest blockbuster releases—but without walking out with a backache from sitting in a poorly constructed seat.

## GET COMFORTABLE

The best antidote for movie-theater aches and pains is a seat designed expressly for movie viewing. You might think the cushions of that cushy couch are comfy, but they can't provide the support necessary for extended hours on your derriere. Specialty home theater seats are constructed of materials to provide the back and lumbar support needed for movie marathons. These chairs also sport features like reclining action, massage and heat, and adjustable headrests to maximize your comfort. Most manufacturers of specialty theater seating offer several levels of firmness, so you can customize the cushions to your liking.

Customization of comfort doesn't stop there. If you're tall, you can order a seat back to fit your frame. Ditto for the width and shape of the seat, the size of the armrests, and the height of the chair.

## LOCK DOWN A LAYOUT

If you're trying to make your theater look as close to the real thing as possible, rows of individual seats may be the ideal configuration. However, know that you can always include loveseats, sofas, and chaise longue in your home theater design. Additionally, the seats can be arranged in a straight line or a gentle curve, and placed on risers for a stadium-style seating arrangement. Know how you'd like to arrange out your chairs before you buy; it will help you choose the right size and shape to best fit the dimensions of your home theater room.

## EXUDE STYLE

Once you have nailed down the type of seat for your theater, it's time to think about how you'd like them upholstered. The sky is the limit, as manufacturers offer a wide range of fabrics, colors, and textures to suit your style. Leather is always a popular choice for its durability and resistance to stains and dirt, but your theater seats can be covered in suede, velvet, mohair—just about anything—and in any color, from neutrals like gray and brown to vivid hues like cherry red and cobalt blue.

Do you want your theater to look modern, ornate, rustic, or perhaps you're designing the room around a specific theme? The fabric chosen for the seats should reflect this style. You can take this design scheme a step further by incorporating special finishes like fringe, tufting, nail heads, elaborate stitching, even have your family emblem embroidered on seat backs. You can add wood of any type or finish to the seating design, as well, like



wrapping the arms and base of the seat with beautifully stained veneer.

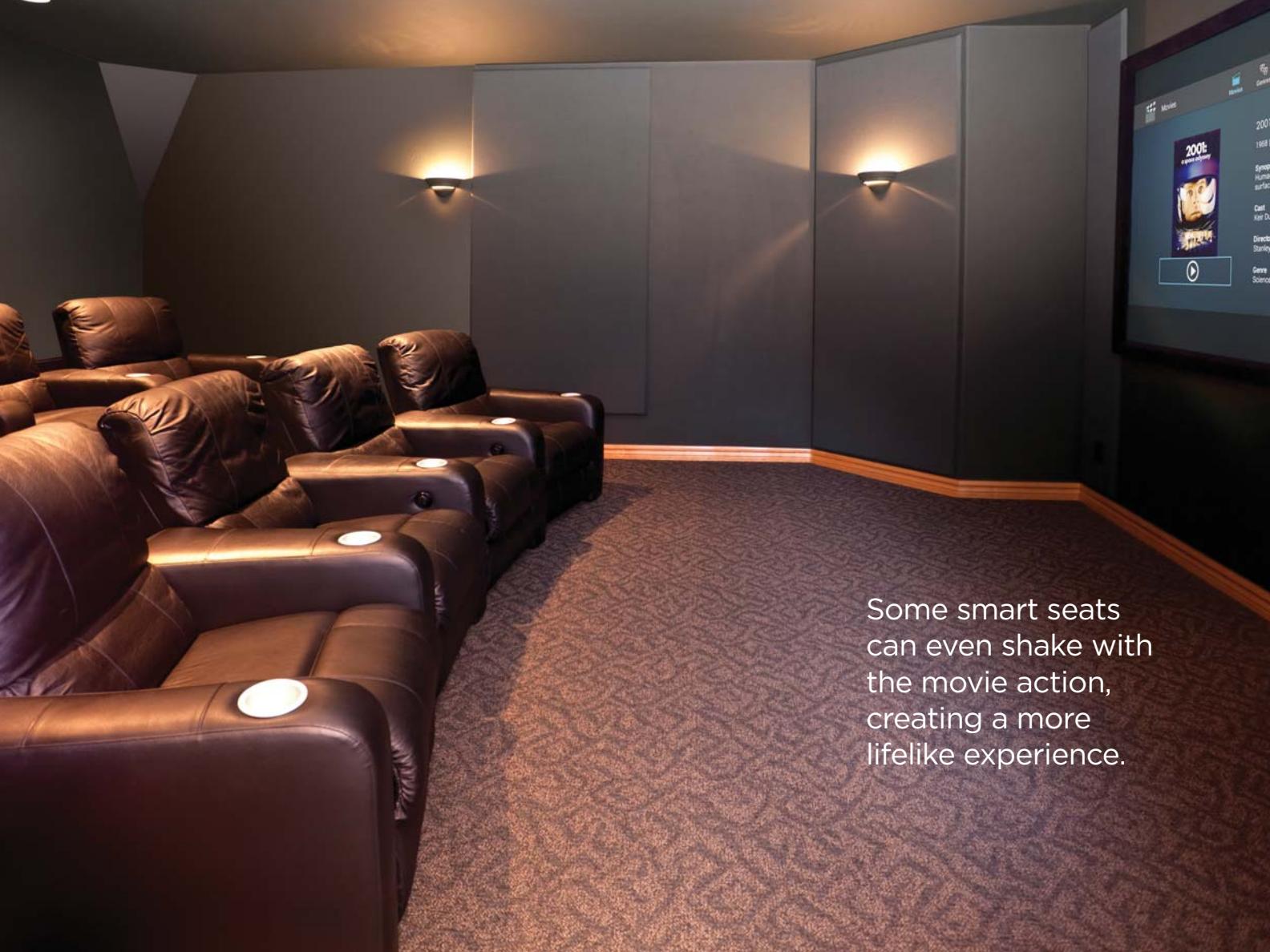
## DO THE DETAILS

A theater seat can be so much more than a place to plant your backside. If you like to nosh on snacks and sodas during a movie, accessorize your seats with built-in cup holders and retractable trays.

You can choose to have the cup holders illuminated and the trays motorized for an extra flair. Integrated lighting on the base of the chair can help you find your way to your seat in the dark, and built-in ports can keep your phone and tablets charged. A storage compartment is another handy embellishment, providing a stowaway spot for blankets, pillows, remotes, and other items.

You take your movie viewing experience to a whole new level by sliding a product called a "tactile transducer" underneath





Some smart seats can even shake with the movie action, creating a more lifelike experience.

the chair. Designed to synch with the movie action, it shakes and vibrates the seat so you feel what's happening on the screen. These products add another sensory experience to your theater—touch—for special effects that turn your room into a 4D theater.

#### SMART SEATS

Home theater seating manufacturers are pushing the envelope even more by incorporating into their product special sensors that enable their chairs to adjust automatically when

you've taken a seat. It's akin to the way seats in luxury cars move to cater to your comfort without any manual manipulation. These smart seats are even smarter, however, as they can activate certain features of your home theater based on whether you've sat down or stood up. For example, sitting down can trigger the lights to begin dimming; standing up can tell the light to brighten. This level of intelligence does require that the seat be integrated with a home automation system, which will drive up the cost of your home theater

seating investment. Still, it's just one more reason to consider specialty theater seats for your special home theater destination. Your backside will thank you. ■

# DISH: Beautiful from every angle.



**MEET THE 4K JOEY®:** Featuring IP integration with popular control platforms, this receiver is capable of powering a matrix switch, individual display, or projector for a seamless, 4K-enabled entertainment experience\*. Why? Because you asked us for more connected technology in the home.

**[DISH.com/CEDIA](http://DISH.com/CEDIA)**



\*Watching 4K requires a 4K TV.  
4K Joey set-top box requires Hopper® Smart DVR setup.

# Old English Pub

Packed with Smart Home Surprises

A SECRET BIOMETRIC BUTTON ON A STATUE OF BEETHOVEN SWINGS OPEN A DOOR TO REVEAL A HIDING PLACE

*Lisa Montgomery, Electronic House*

Video and music are a given in any pub, be it an establishment in town or in your own home. But a safe room? Not so much.

A secret button tucked underneath a statue of Ludwig Van Beethoven that reveals that room? That's even more unusual.

Biometric technology embedded in that button that scans and reacts to the fingerprint of only a few certain people? Now that's one high-tech bar.

In the midst of renovating their 6,500-square-foot home, the owners of this space pulled out all the stops and incorporated high-tech touches throughout the residence. The newly added bar area, though, received the royal treatment, thanks to the creative minds at Futurian Systems.

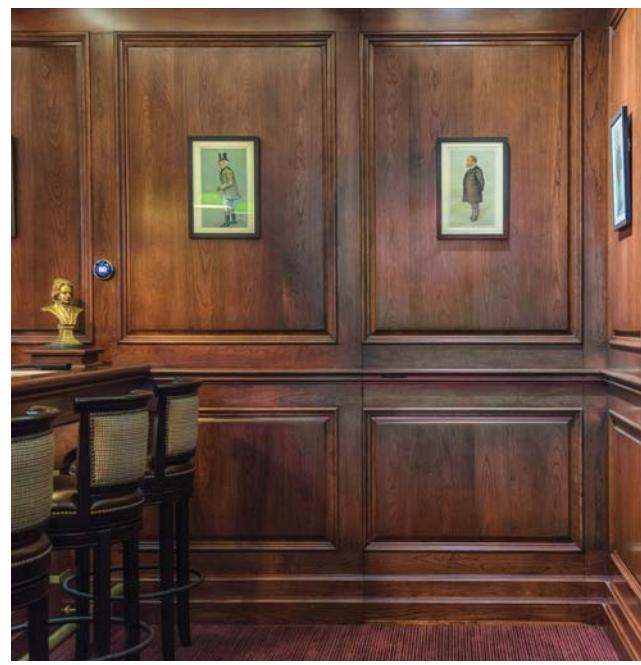


PROJECT INSTALLATION: Futurian Systems

PROJECT LOCATION: Vail Valley, Colorado







PHOTOS COURTESY OF FUTURIAN SYSTEMS



Beethoven holds  
the "key" to the  
safe room

## BEETHOVEN AND SINATRA UNLEASH THE MAGIC

"The homeowners are very tech savvy and wanted something unique for their new 'Old English Pub.' Their request was very specific and straightforward: they wanted this to be the nicest home bar in all of Vail," says Futurian Systems president, Jeremy Beck. "Over the course of the construction, wiring, and design of the bar area, we collaborated with the homeowners to develop some solid ideas in terms of the technology that would be incorporated. The biometric scanner adds a sense of mystery and makes this bar like no other."

Stationed at the end of the bar, the statue of Beethoven sits atop a pedestal. Pivoting the bust backwards slightly reveals a button that, when touched, unlocks and opens the safe room door.

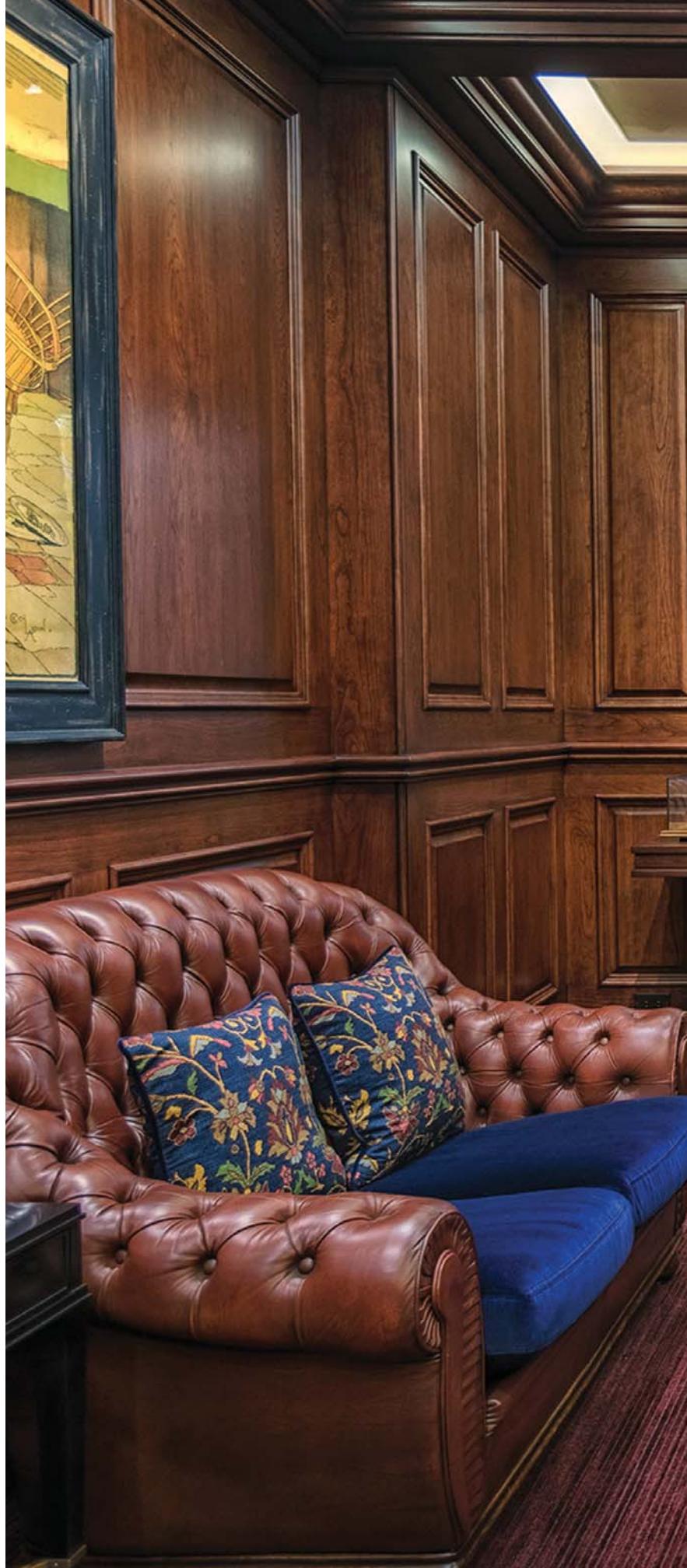
The statue of Beethoven inspired other innovative high-tech twists. For example, when the owners press a button labeled "Entertainment Mode" on a handheld Control4 remote, wall-mounted Control4 touch screen, or on the Control4 app on a mobile device, Beethoven's Symphony No. 5 blasts through a pair of bookshelf speakers. Joining in are colored LED lights behind a pane of glass at the front of the bar, and fixtures that brighten and dim automatically to the owners' preferred levels. In an instant, the room is ready to entertain family and friends.

While Symphony No. 5 sets the scene, the owners can easily switch to a different piece of music by using one of their Control4 devices to access their favorite streaming music services. One of their favorites, says Beck, is Frank Sinatra, so Futurian Systems created a special "Frank Sinatra" button that pulls up the Frank Sinatra Sirius XM channel.

## **BAR CUES HOMEOWNER TO ARRIVING GUESTS**

The audio system can also give the homeowners a “heads up” that guests have arrived. Futurian Systems tied the Control4 audio system, which can deliver music to the bar speakers and every speaker in the house, to a driveway sensor. When the sensor detects that a car has entered the property, it triggers the audio system to temporarily interrupt the music and play a chime. The chime sounds again when the sensor detects that vehicles are leaving.

To add video to the mix, another tap of a button activates the 40-inch Samsung 4K TV mounted to the wood paneling at the side of the bar. Futurian attached the TV to an articulating wall mount that allows the TV to be pulled away from the wall and swiveled in all directions.







Futurian didn't stop at providing only entertainment in this bar, however. From the same control devices that provide access to video and music, the owners can operate the security system, control all lighting throughout the house, and direct music and video to other speakers and TVs in other rooms.

The words of Beethoven are applicable to the technological art that was tweaked and perfected in this home to excite and impress its owners: "Don't only practice your art, but force your way into its secrets." ■



# YOUR FAVORITE MUSIC IN PREMIUM, HIGH-RESOLUTION QUALITY

You're used to your music being portable—listening in the car or at work—and it's easy to accept a lower quality of sound when you're on the go. But when you're at home, you should never have to sacrifice quality for portability.

With your favorite streaming services built into every Control4 system, and the Triad line of speakers, audio switches, and amplifiers, you can now bring the concert experience into your home and enjoy incredibly refined sound throughout every room in the house.



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**Control4®**

Integration with a homeowner's Control4 system and each service require separate subscriptions and/or accounts to each service, and is to subject to the availability of the service in the homeowner's area.

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From bulky systems to seamless sound:  
**WHY MULTI-ROOM AUDIO IS KING OF  
THE CONNECTED HOME**

HOMEOWNERS  
ARE NOW  
EXPERIENCING  
WHAT THEY DIDN'T  
EVEN KNOW  
THEY WERE  
MISSING



# T

here's no doubt about it—audio is a huge draw into the connected home. But where did multi-room audio get its start? And what does the evolution of multi-room audio mean for the industry moving forward?

Interest in multi-room audio can be traced back almost as long as recorded music has existed—people have always wanted a way to enjoy it in every room of their home. Throughout the decades, multi-room systems have evolved from broadcast radio and have almost universally been sold as a premium, in-home experience meant to be shown off and fawned over. Records, reel-to-reel tape, and then cassettes led the way in recorded music for years until CDs became king. CDs were compact, relatively durable, and made it easier for consumers to listen to music—though some would argue that this started us on a path to lower sound quality, as some details were lost in the conversion from analog to digital.

Next came MP3s. Popularized by iPods and other portable devices, MP3s allowed a more portable and personal experience for consumers to carry many albums in the palm of their hand. File compression required for MP3 meant a reduction in sound quality, ridding the music of the details and depth that are found in the original recordings but not exposed when listening with earbuds. With all that music on an iPod, many consumers figured, “why not just use that as my music source in the home?” and, almost without noticing it, their music lost some of its life. A “new normal” emerged for consumers where they were enjoying music, but not at the level that the artist intended.

Streaming music services have now emerged as the ultimate in music portability, allowing audio enthusiasts and music lovers to access almost any album they want from a variety of sources. But as the battle between streaming services plays out, consumers are now becoming familiar with higher-resolution audio and are becoming more aware of the missing “goods.” Service choices wane in popularity as new options appear on the market, but companies like Deezer, Napster, Pandora, Spotify, and Tidal continue to lead the way. Because the music is streamed and not stored on a portable device, listeners may actually be able to enjoy higher-quality music without sacrificing convenience, which also makes for a better listening experience at home.



High resolution is now emerging as the next big thing in multi-room audio as consumers experience what they didn't even know they were missing. And because it's not isolated to a listening room, customers are able to enjoy the more immersive, more emotionally engaging music experience wherever they are in the house; a homeowner can start listening to music while making dinner and then move into the dining room without skipping a beat or disrupting the mood. High-resolution music that follows them wherever they may be is a key differentiator from free-standing audio systems that can only be heard in one room. Music can be enjoyed the way it was intended. Turning an entire house into an immersive music listening environment really elevates a homeowner's enjoyment of their system and makes entertaining or everyday living a true-to-sound audio experience.

Not only does multi-room audio sound better than ever, it is easier than ever to enjoy. With one-touch solutions like Control4's keypads, touch screens, or handheld remote interfaces, homeowners can literally listen to their favorite music with a single press of a button, which can also set the lights, shades, and thermostat to suit the mood. And there are many in-wall, in-ceiling, and even invisible speaker options, available from quality speaker manufacturers, that can complement or blend into any room of the home.

Multi-room audio doesn't have to be limited to the inside of a home. With the increasing interest in outdoor audio comes solutions like the Triad Garden Array Outdoor Speakers that bring advanced, broad-dispersion sound to outdoor living—a far cry from crackly, mounted speakers that don't allow for high-level user control. Even better, they're design friendly and easily blend into a home's landscape.

So how will we see multi-room audio evolve over the next five to ten years? Technology will help it become more pervasive and integrated into our homes and our lives. It will be more personalized. Simpler to access and interact with. More immersive and emotionally engaging. And, with the constantly expanding list of streaming services available, high-resolution sound is likely to be a huge game changer. ■



TECHNOLOGY IS MAKING OUR  
MUSIC AT HOME EVEN MORE  
PERSONALIZED





## TRICKED-OUT TECH for your back yard

*Make the most of your home's living space by sprucing up the back yard*

Smart technology spans the bridge between indoors and out, creating an inviting space that's enjoyable for guests and easy to maintain for the host. With a dose of inspiration from this list, you can transform even the smallest patch of grass into your own tech-savvy oasis. Read on for some ideas to get started!

Crystal Watts



PHOTOGRAPHY: COURTESY OF COMPANIES FEATURED

## LYNX SMARTGRILL

Nothing beats an outdoor meal, and the Lynx SmartGrill will have your backyard barbecue heating up in no time. And in the company's trademark stainless steel, they're not only smart, but sleek, too. The world's first voice-activated grill, it also "learns" your preferences for doneness and cooks your food to perfection each time using a patented machine-learning algorithm. The corresponding mobile app will help you keep things from getting too smoky should you step away from the burners.

[lynxgrills.com](http://lynxgrills.com)

## RACHIO SMART SPRINKLER

Dry, dead grass is the enemy of any outdoor enthusiast. Wouldn't it be nice if you could always avoid watering in the rain, optimize your watering schedule, and water only the parts of your yard that need it most? To ensure your lawn stays hydrated and problem free, consider a connected sprinkler device. This easy irrigation tool syncs with Amazon's Alexa, Google Home, Control4, Nest, and other popular home automation systems, so no matter where you are, it's never been simpler to show off your green thumb.

[rachio.com](http://rachio.com)

## BACKYARD HYDRO HAMMOCK

Find your backyard bliss in this hot tub/hammock hybrid. It also sets up as a hot waterbed! For anyone who takes their relaxation seriously, this heavy-duty waterproof cocoon is made of durable, UV-resistant acrylic canvas and can hold two people or up to 50 gallons of water. According to the company, the Hydro Hammock uses "less water than a bathtub" and is equipped with a heater to bring your portable tub to a comfortable temperature in 30 to 45 minutes. Perfect for use all year round, this hot tub won't take you back in time, but it might send you to paradise.

[hydrohammock.com](http://hydrohammock.com)

# TRICKED-OUT TECH

for your back yard



## TROBOMOW: ROBOTIC LAWN MOWER

Your Roomba's wild cousin. With a Robomow RS612 robotic lawnmower, your space outdoors can be kept manicured to perfection—automatically. Silent, powerful, and a breeze to control, this turbo trimmer cuts grasses short or tall with ease. The free mobile app adds extra functionality to this hearty bot, making it possible to schedule mowing, customize functions, set an alarm, or trigger an “eco-mode” that enables you to monitor usage data. [usa.robomow.com](http://usa.robomow.com)

## TRIAD'S GARDEN ARRAY SPEAKERS

Equipped to handle the outdoors with ease, Triad's Garden Array speakers are all weather and feature high-performance audio that delivers rich, dynamic sound to transform your yard into the perfect entertaining space. Ultra-Broad Dispersion (UBD) provides superior sound coverage using fewer speakers, so you'll enjoy evenly dispersed sound without needing to crank up the tunes so loud that you annoy the neighbors. When tied to an automation system like Control4,

the audio can be instantly started through an app, a keypad, or a touch screen. Built to resist inclement weather and curious critters, too, the Garden Array can scale to fit your home's unique style and your budget—making it the perfect low-maintenance listening solution. [triadspeakers.com](http://triadspeakers.com)



## THE COOLEST OUTDOOR COOLER

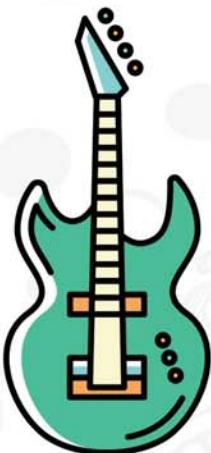
What's cooler than being cool? Ice cold...drinks! And, of course, a built-in Bluetooth speaker, plus handy tools like a bottle opener, USB charger, and cutting board (plus cutlery). The Coolest Cooler functions like a Swiss Army knife for your pool parties, offering a blender component and LED light, as well. Charge up the 20V lithium battery, and you're ready to chill anywhere.

[coolest.com](http://coolest.com)

The best thing about having a yard you love is that it's a perfect excuse to spend time outside. Consider how you envision using the space—will it be for pool parties, book club meetings, or yoga practice?—and experiment with the great array of gadgets available to help you put it all together. In your back yard, the sky's the limit! ■

# IT'S ABOUT THE BASS (AND TREBLE)

Streaming stats, audio trends, and musical "numbers" that will strike your chord.



## Top 5 Best-Selling Albums of All Time



**Michael Jackson**  
"Thriller" **(33M)**



**Eagles**  
"Their Greatest Hits" **(29M)**



**Billy Joel**  
"Greatest Hits Volume I & II" **(23M)**



**Led Zeppelin**  
"Led Zeppelin IV" **(23M)**



**Pink Floyd**  
"The Wall" **(23M)**

**9 out of 10** consumers say sound quality is the most important part of audio



## High-Res Audio Devices

Dollar sales up **77%**

Unit sales up **118%**  
(from 2014-2016)

## Subscribers of Streaming Services



Spotify



Apple Music



TIDAL

## Global Music Sales Totaled

**\$15.7B** 2016



### SOURCES:

Billboard - Variety - Digital Music News - Pitchfork - IFPI  
Mashable - XMOS - NPD Group - SONY - Fast Company



After nearly two decades, the U.S. music industry has experienced double-digit growth



Streaming services generated more than 50% of this revenue



Music is one of the few activities that **uses the entire brain**



None of The Beatles **could read or write music**



Families spend **13% more time together** when music is played aloud at home



One study has found that rock stars, on average, **die 25 years younger** than the average person



Couples "**do the deed**" more often when music is played at home



Interest in a **seamless multi-room audio** experience is increasing among homeowners



PROJECT INSTALLATION: Next Level Technology

PROJECT LOCATION: Panama City, Panama

# REACH FOR THE SKIES

With its reflective glass facade and sharp-angled, tapered exterior, Capital Bank Tower seems to pierce the heart of Panama's financial district like a shimmering stake in the ground, a bold marker for the future of office buildings in the city. Designed from the start to be smart in every sense of the word, the 23-story tower may not be the city's tallest (that honor goes to the 70-story Trump Ocean Club International Hotel and Tower, completed in 2011), but what it lacks in height it certainly makes up for in elegance and ingenuity.

ONE OF THE LATEST ADDITIONS TO THE PANAMA CITY SKYLINE, CAPITAL BANK TOWER STANDS AS BOTH A MONUMENT TO THE CITY'S VIBRANT TRADE HISTORY AND A HIGH-TECH TESTAMENT TO ITS CONFIDENCE IN CONTINUED INNOVATION AND SUSTAINABLE SUCCESS





Commercial building has exploded in Panama City since the turn of the millennium, but the city's history as a global trade hub goes back almost 500 years, thanks to its fortuitous location on one of the world's most important shipping routes—the Isthmus of Panama, which links the Atlantic and Pacific oceans. It was a stopping-off point for gold and silver traders crossing the Americas to Spain in the 16th and 17th centuries, and with the completion of the Panama Canal in 1914, the city cemented its status as a key



international center for trade and commerce. Today, it is best known as an offshore banking hub, home to around 80 banks (15 of them home grown).

Work on the tower began in 2010, after Panama's Capital Bank decided to build an HQ fit for a forward-thinking, 21st-century finance company. The growing bank secured a prime spot in Calle 50—the main street of the city's financial district—where it could bring its divisions together under one roof. It wanted the tower to make a bold statement

and break down traditional thinking about what a financial building should be like. Instead of a severe, stuffy fortress (sadly still the default for many financial institutions), the vision was to create a welcoming, environmentally sustainable space that also reflected the bank's confidence, dynamism, and drive for innovation.

After assessing various proposals, the bank selected local architects Saul Bassan Associates (SBA) to realize its bold vision for the building. "Later,

the proposal was modified, creating a design with different levels and areas standing out at the front to highlight the Capital Bank logo," SBA says.

The basement and ground floor house the bank branch itself, while the rest of the tower features a multi-story car park, mezzanine, restaurant area, office space, VIP meeting rooms, and an auditorium. "The tower far exceeds the requirements of any last-generation financial building," the architect adds. It is also a showcase for sustainable construction, having



been LEED\* certified (\*Leadership in Energy and Environmental Design, a global program to recognize environmentally friendly building, administered by the US Green Building Council). As well as using sustainable materials and following green building guidelines, Control4 smart lighting ensures all lights in the building are switched off at night or when not in use.

Capital Bank Tower was completed in June 2016 and has quickly become a popular local landmark, with people now commonly referencing it in directions. At street level, bank customers have 24-hour access to a high-tech ATM plaza that looks like something from Star Trek, with angular strips of white, in-floor lighting that accentuate a space-age, chevron-shaped counter that cleverly echoes the tower's exterior and the bank's "flying bird" logo. Live financial tickers scroll around the top of the walls, drawing in passers-by.

The ground-floor bank lobby, meanwhile, exudes warmth and

wealth, with its wood and marble fixtures, gold marble-tiled floor, sumptuous seating, and subdued spot lighting. But even here, the space is punctuated by playful and futuristic touches—such as the fun, leaf-relief staircase walls, mirrored elevator, and curvy touch-screen pedestals where customers can access bank services electronically.

The building's technology is not merely cosmetic—it forms a fundamental part of what makes the tower such a showpiece for the green, people-friendly workplace of the future. "There's been a lot of commercial construction in Panama City over the past decade, but none has taken automation to this level before," says Elias Mugrabi, general manager of smart tech specialist Next Level Technology, whose Control4-based solution was selected by Capital Bank at the outset to be the "brains" of the tower.

Working closely with the architect and designer, Next Level has integrated fully automated



Centralized Lighting throughout the building that can maximize energy efficiency and provide the right custom lighting for any scenario at the touch of a button. Similarly, meeting room windows can be shaded automatically or on command, to give people privacy or block out unwanted external light. Training rooms, offices, and VIP meeting rooms also feature Control4 automated video and audio technology to make screening video and delivering presentations wirelessly a breeze. The days of

The bank is not only a technological marvel, it's also a showcase for sustainable construction.





Each meeting room has its own pedestal that glows green if available and red when occupied.



fumbling with cables and apologizing to feet-shuffling guests as someone makes embarrassed calls to tech support are a thing of the past, at least for Capital Bank.

Above the ground floor are 10 floors of car parking with motion sensors to switch on lights only when needed. Floors 11-23 house sumptuous offices, safety deposit boxes, trading floors, the bank's leasing division, training areas, and guest facilities. But for Next Level's Mugrabi, the pinnacle of the tower's automated excellence is its VIP area—the top three floors, housing a plush entertainment space and 11 high-spec, high-tech meeting rooms.

Here, the wooden ceiling again echoes the bank's logo with its Kandinsky-esque angled panels.



Various designer seating areas ooze luxury and modernity, with neat touches like the huge, tapering glass lamp referencing the shape of the tower itself. Contemporary artworks are dotted throughout the space and on meeting room walls. Some depict scenes from Panama's tropical rainforest, reflecting the tower's strong emphasis on sustainability. Ambient audio is installed throughout and can be centrally or locally controlled via Control4 keypads and touch screens.

A corridor leads to the VIP meeting rooms, each with a pedestal outside that glows green if a room is free, or red if it is occupied. Each pedestal houses a Control4 touch screen to manage use of the room. Control4 keypads are embedded into the tables

to allow occupants to select the correct room ambiance at the touch of a button. "For example, if they press the button labelled 'presentation,' the projector turns on, the lights dim to 30%, and the shades go down," says Mugrabi. "A glass adhesive on the windows can also change from transparent to non-transparent, providing privacy on demand." And integrated audio allows for presentations to be easily shared with other meeting rooms.

Floor 12, which houses the auditorium and training rooms, is another part of the tower where smart technology comes to the fore. Mugrabi says, "Meeting rooms on this floor have wireless microphones between all rooms. Keypads in each room can control collaborative,



multi-touch video projectors with audio. We have also installed a video matrix to share video between the auditorium and all training rooms in case the auditorium is fully occupied.”

It is a truly stunning building, inside and out—and one which undoubtedly raises the bar for future high-rise projects in the city. But as well as pointing the way to the future, the tower also reflects (literally, in its mirrored exterior) Panama City present and past—a thriving financial hub with a 500-year history of global trade. And with its focus on sustainability through modern technology and

construction methods, Capital Bank Tower represents an understanding that Panama’s riches extend beyond money to the country’s precious natural environment, which—as forward-thinking companies like Capital Bank realize—must be respected and protected if the city is to carry its success forward for the next 500 years. ■



Keypads are embedded into the tables to allow occupants to select the correct room ambiance at the touch of a button.

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[bluos.net](http://bluos.net)

# CUSTOMIZING YOUR PAD

(Your keypad, that is)

TAKE A LOOK AT THESE 9 IDEAS  
THAT WILL GET YOUR CREATIVE  
JUICES FLOWING!

## 1. START THE MUSIC!

Why pull out your phone and open an app when a keypad can start your favorite playlist in any room? Even better, a quick double-tap on the same button can start the music playing all over your house!

## 2. CHOOSE DIFFERENT PLAYLISTS

Different moods call for different music. With some creative programming, you can switch between playlists with a colored light indicating what you've selected.

## 3. KEEP YOUR MEDIA LIBRARY FRESH

After adding new music or movies to your media library, the system needs to perform a scan to recognize this new content before it is available. Why not have a "Scan Media" button execute a library scan so you can watch that latest episode of Westworld immediately?

## 4. GARAGE DOOR STATUS CHECK

Never again leave bed to check if you've closed the garage. A light on your keypad can illuminate green when the garage is closed and red when it's ajar. At a glance, you'll know the door's status—and you can even close it with a simple button tap.

## 5. ENGAGE VACATION MODE

There's a lot to remember when leaving for vacation, so let your "Vacation" button do the work. It can set the temperature appropriately, arm the alarm, and turn off all of the lights as you walk out the door. When you return home, double-tap the same button to return the home to normal operation.

## 6. CHANGE VOLUME AND CHANNEL

Rotary volume controls are so 20th century, but a keypad is sleek and modern and can easily adjust your audio system's volume. Or, it can just as easily be used to change the channels on the tube!

## 7. ADJUST THE TEMP

Fussing with a thermostat can be tricky—especially if it is remotely located. Label a couple of buttons on a keypad "Too Hot" and "Too Cold" and guests and family can easily adjust the temperature to the perfect setting!

**S**ure, this multi-button keypad can control thousands of lighting devices, but if you are using your keypad for *only* the lights, you're missing out on a slew of possibilities! Any button can be programmed to control any aspect of your automated home.



#### 8. START A TIMER

There are many times when a timer comes in handy, and whether you're cooking or putting someone in "time out," a keypad button can start a timer while you stay with the task at hand. Easily set pre-determined timers of, say, 1, 5, or 10 minutes based on button presses with changing LED lights indicating the length.

#### 9. GOODNIGHT, HOUSE

No longer be forced to roam your house at night turning things off like some character out of a Greek tragedy. With a single button press, you can instantly turn off all the lights, lock all the doors, shut off all TVs and music, set the alarm, lower window shades, adjust the HVAC, and start rain sounds playing in your bedroom. That's one powerful button, Hercules!

**PSSSSST!** Did you know you can program many of these yourself using Control4's When >> Then homeowner personalization tool? Enjoy the ability to directly create your own smart home reaction—all without a dealer's help!\*

\*Homeowners who subscribe to the 4Sight service and are running an EA controller with Control4 OS 2.10 installed will have immediate access on [customer.control4.com](http://customer.control4.com).



# Jewel of the Emerald Isle



PROJECT INSTALLATION: Velocity

PROJECT LOCATION: Limerick, Ireland

Billionaire race-horse owner and golf enthusiast JP McManus created the perfect harmony of history and high-tech hotel luxury at an ancient Irish manor just a short hop from the town where he was born.



On the banks of the trout-rich River Maigue, in the rural idyll of County Limerick in Ireland, sits Adare Manor—a breathtaking early 19th century neo-Gothic mansion set within a sumptuous, 840-acre parkland estate. Over the past three years, it has been transformed into a luxury tourist resort featuring 104 guest rooms and suites, a world-class golf course and clubhouse, spa, ballrooms, bars, restaurants, and cinema.

Until the 1980s, Adare Manor was a seat of Irish nobility, home to successive Earls of Dunraven and their forebears, the Quin family. The property stands on the site of an earlier, Georgian house (several walls of which still survive) built in 1720 by the first earl's grandfather. But the estate goes back much further—having been known as “the Manor of Adare” since at least the early 13th century, when, in 1226, King Henry III gave permission for an annual fair to be held on the site.

It was rebuilt in the mid-1800s by the second Earl of Dunraven, Windham Henry Quin, and his wife, Lady Caroline. The chateau-like manor house, with its neo-Gothic towers and gargoyles, was designed as what is known as a “calendar house”—with 365 leaded windows, 52 ornate chimneys, seven stone pillars, and four towers to represent the days, weeks, and seasons of the year. In the centuries since, it has been the setting for balls, banquets, concerts, the 1977 movie *The Last Remake of Beau Geste*, and TV talent show *The X Factor*.



The “calendar house” is complete with 365 leaded windows, 52 ornate chimneys, seven stone pillars, and four towers to represent the days, weeks, and seasons of the year.





All the interiors—including the great hall designed by celebrated architect Augustus Pugin in 1846—have been stripped back and completely refurbished.

The estate was originally converted into a hotel and golf course in 1987 by Irish-American businessman Thomas Kane, but when it came on the market just over three years ago, the once grand manor was in need of some TLC. Enter JP McManus, billionaire businessman and Ireland's most successful racehorse owner.

McManus was born in Limerick and was eager to invest in the local economy of an area so close to his heart. A keen golfer (and friend of Tiger Woods), he had already hosted several pro-am golf tournaments on the estate, and in early 2015 he snapped up the property with a view

of transforming it into something really special. The Irish Examiner reported that McManus even harbors hopes of hosting golf's Ryder Cup tournament at the resort. "There is a lot of competition for it from Britain and the rest of Ireland. It's tough competition, but I do believe we have the facilities and a venue that can cater for it," he told the newspaper in 2017.

The past three years have witnessed a transformation that appears almost as magical as the Emerald Isle itself. The old golf course was leveled and replaced with an 18-hole championship course designed by one of the world's top golf course



designers, along with a new luxury clubhouse and restaurant. This was a gargantuan effort that involved bringing in tens of thousands of tons of sand and almost 700 construction workers.

The manor house and other historical landmarks on the site have been lovingly restored and protected, including the complete removal, repair, and replacement of the roof. As a “listed” building (protected as a heritage site), the original house could not be structurally altered, but all the interiors—including the great hall designed by celebrated architect Augustus Pugin in 1846—have been stripped back and completely



refurbished. In addition, a whole new wing has been added in keeping with the original style, more than doubling the number of guest rooms as well as housing the new suites, ballrooms, and cinema.



For the interiors, McManus wanted to recreate the homely but luxurious feel of the original Manor House while simultaneously including all the high-tech features that demanding guests paying top dollar expect. So he called smart technology specialist Velocity, who had already kitted out his house in the Caribbean and his home in Ireland 10 years ago. Ben Taylor, Velocity co-director, says: "He knew we also had extensive experience installing smart tech into hotel rooms, and he wanted Adare Manor to be completely state of the art."

The exquisite property features 104 luxurious guest rooms and suites.





However, striking the right balance between functionality and ease of operation is trickier for hotels than it is for houses. “You need to understand the client base and design a solution suitable for the typical range of guests. The kind of technology we’d put into an ultra-modern city hotel with a clientele of predominantly under-30 young professionals, for example, and a historical rural retreat like Adare Manor, are very different,” says Taylor.

Velocity found the typical guest of Adare Manor was wealthy and over 40, but with varying levels of experience with, and expectations of, new technology—everyone from tech-savvy golfing businessmen to retired couples seeking an escape from the tech-saturated trappings of modernity. That meant the technology had to be highly functional, but at the same time completely unobtrusive and extremely easy to use.

“When people are installing smart technology in their own homes, they can specify precisely what they want

and have the time to familiarize themselves with all it can do and how to control it. But if people come to a hotel, they need to be able to use it instantly and intuitively,” says Taylor.

Since everyone has their individual needs and preferences, the key was to give people various ways to control all the smart features on offer.

The technology had to be highly functional, but at the same time completely unobtrusive and extremely easy to use.





“It is estimated the resort will contribute in excess of €15 million to the local economy, and we anticipate welcoming over 60,000 visitors to the manor every year.”

**Colm Hannon**  
*chief executive*

"For example, we put a simple rocker switch on the walls with a button to cycle through four or five different lighting scenes based on the time of day or year, all pre-programmed by professional lighting designers. Everybody knows how to use a switch, and the guest doesn't see any of the Control4 technology that powers all the smart features—it just becomes part of their experience," says Taylor. In the same way, they can also shut the curtains automatically using a bedside switch or press a button for "do not disturb," which disables the room's doorbell, informs reception not to enter, and lights a red LED outside the room.

Guests can also control room features via an easy-to-use app, specially created by Velocity, on a Samsung Galaxy tablet placed in their room. And for those not familiar with touch screens and apps, all the features can also be accessed via the room's smart, networked TV (IPTV) via the remote control in the same, familiar way they would flip the channels. "They can use either the app or the IPTV to, for example, summon the maid, order a medium-rare steak from room service, or control room functions," says Taylor.

A Control4 Pakedge network ensures there's excellent WiFi coverage across the hotel and estate. Guests can stream content from their own mobile devices wirelessly to the IPTV in their room, or, indeed, vice-versa—stream what's showing on IPTV to their mobile device and watch it elsewhere on the site, perhaps while having a drink on the terrace or a stroll round the gardens. Alternatively, they might prefer to book the cinema, where an individual touch screen gives them full control of the space so they can watch a movie of their choice, some live horse

The resort has around 350 staff, and Control4 technology is also helping them be more productive and attentive to the needs of guests by automating all the lighting and music across the hotel and golf club.





racing, or a golf championship.

Velocity also worked closely with designer Kim Partridge, founder of Kim Partridge Interiors, who painstakingly created homely, elegant rooms that draw inspiration from both Adare Manor's Georgian and neo-Gothic pasts. Partridge told Home Smart Home: "The whole ethos was for guests to feel they're entering a home rather than a hotel—really easy, comfortable living with a touch of individuality and eclecticism."

As part of this strategy, she put together a collection of several hundred 17th- to 19th-century original artworks, which are on display across most of the guest rooms as well as in the public spaces. "We're also showcasing some sculptures by contemporary Irish artists like Peter Killeen, John Behan, and Rachel Joynt," she says. As with the technology, this modern touch perfectly complements and accents Adare Manor's more traditional ambiance.

Technology doesn't stop at the guest rooms, however. The resort has around 350 staff, and Control4 technology is also helping them be more productive and attentive to the needs of guests by automating all the lighting and music across the hotel and golf club. "For example, as it begins to get dark, the lights automatically transition discreetly to an evening scene over the course of a half-hour. Each area has been programmed slightly differently to give just the right ambience at the right time, based on input from professional lighting designers," says Velocity's Taylor.



All the music playlists are also controlled automatically and can be sourced from either fixed media (like USB flash drives) or streaming services (like Spotify). “And, of course, everything can be overridden manually, if needed,” says Taylor.

Tech is also set to help with hotel management. “We are currently putting in a maintenance dashboard we’ve created to hook into all the Control4 technology and allow hotel managers to see usage data on all the rooms and control them remotely—heating, lighting, and so on,” says Taylor.

At the time of this writing, the refurbished resort had only been fully open for a week, but Taylor says early guests have been effusive. “Everyone so far has been very impressed and we’ve also had great feedback from the hotel managers and staff we’ve spoken to,” he says.

And, as Adare Manor’s chief executive Colm Hannon told the media in 2017, the development is set to give a welcome financial fillip to the region. “It is estimated the resort will contribute in excess of €15 million to the local economy, and we anticipate welcoming over 60,000 visitors to the manor every year,” Hannon said, adding: “The new facilities position this hotel and golf course as one of the very best in Europe and, indeed, the world.” ■



Control4 Dealer, Velocity, has offices in Ennis, Ireland, and London, United Kingdom, with in-house teams of network designers, software development personnel, and custom installation specialists. They boast an extensive international presence delivering projects for hospitality, including 45 Park Lane in London; Dorchester in London, Rome, and Paris, with a location in Dubai underway; Dromoland Castle, Ireland; Metropolitan, London; and Grosvenor House Apartments (GHA), London.

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# OUT-OF-SIGHT SOUND

*Great sound no longer comes at the expense of aesthetics*

*John Sciacca*

**R**emember that old adage that children should be seen but never heard? Yeah, well speakers are exactly the opposite of that in most situations. And while many people would love to have their homes filled with beautiful audio, some want to do so without having any hardware or speakers marring the look of their home. If you haven't been speaker shopping for a while, or still equate good sound with monolithic black towers looming in the front of your room like something out of Stonehenge, then read on.

For years, the primary speaker design was a boxy cabinet that was finished in a wood veneer, usually black ash or walnut. Fortunately, speaker designers have focused on improving aesthetics as well as sound quality in recent years, and now speakers are available in far more décor-friendly options. Some companies will custom-paint speakers in any color, even offering color-matching services to ensure the speaker looks perfectly at home in your home.

One of the biggest developments in speaker design is a category commonly referred to as "architectural audio." These are in-wall (typically rectangular) or in-ceiling (typically round) speakers that install flush. When installed to line up with existing recessed lighting found in most homes, these speakers blend into the flow of the ceiling. A recent design improvement many manufacturers have adopted is using micro-thin bezels, which give the speakers a very clean, minimalistic, and finished look. Get the grilles painted to match your wall or ceiling color and the speakers will practically disappear!

The key to getting full-range audio is using speaker drivers large enough to move air in the room. In order to fit into a standard 2"x4" wall cavity and still deliver decent sound, most architectural speakers feature 6.5-inch or larger speaker drivers. However, these speakers have a fairly large footprint, typically requiring a grille with a 9-inch (or larger) diameter. Even when painted to blend into your décor, this can stand out, especially when placed next to a modern, small, aperture-recessed LED light kit.

A terrific solution is something like Triad's new Designer Series speakers, which offer huge, room-filling sound in a tiny package. These speakers conceal multiple drivers inside a specially designed enclosure that hides away behind your wall, and then directs the full-range audio signal out of a single 4-inch port, which is then covered with a round or square grille. The result is stunning audio that will leave your guests pondering, "Where is that wonderful music coming from?"

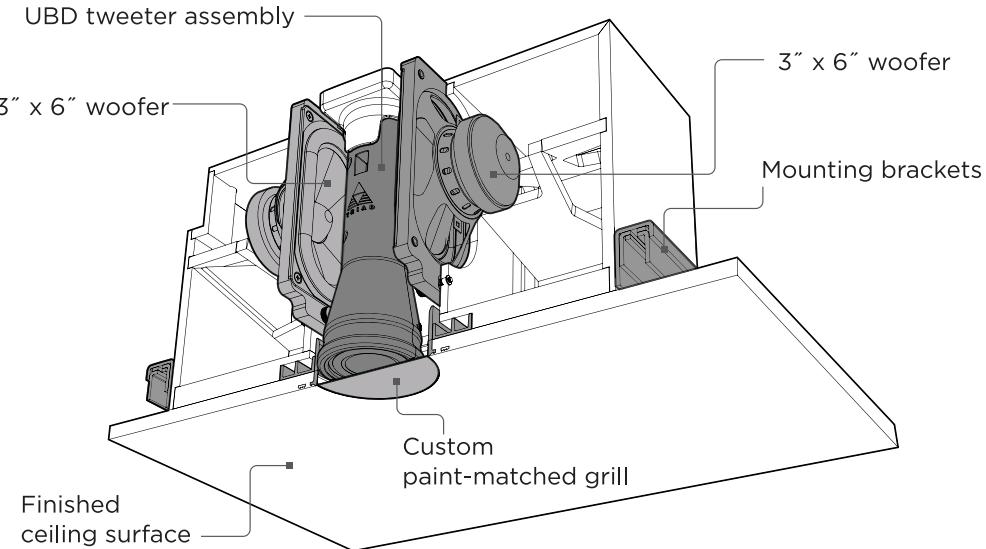
Another excellent method for concealing speakers is placing them behind fabric inside of columns or cabinetry. Acoustically transparent cloth that won't impact the sound is available in dozens of colors, allowing your speakers to truly disappear into the room's design and letting you enjoy virtually any speaker.

For a truly invisible speaker installation, some manufacturers offer speaker designs you literally cannot see. These specially designed speakers install inside the wall but are then completely covered over with plaster or drywall mud, then painted or wallpapered to match the rest

of the wall. The end result is a completely undetectable speaker that fills the room with audio.

Bottom line, filling your home with terrific sound without sacrificing aesthetics is now easier than ever before and is something your designer or installer can help you to enjoy today! ■





Triad Designer Series speakers hide neatly in a ceiling and project full, rich sound from a four-inch, flush-mounted, serviceable grill.



# 10 tedious tasks... now handled by voice

Jordan Wills, Cloud9 Smart

Voice recognition was pretty unreliable when it first came to the smartphone market. Now every smartphone has it, and if your initial disappointment of voice control turned you off, now is the time to revisit it.

COMPLETE THESE 10 COMMON SMARTPHONE TASKS IN ALMOST HALF THE TIME SIMPLY BY ADDING "HEY SIRI" AND "OK GOOGLE" INTO YOUR REPERTOIRE.

## 1. Write messages

Apple and Android phones can transcribe spoken messages in any app you request (just give your voice control the right permissions). Have Siri or Google Assistant draft that text or LinkedIn message, and you can make edits before sending.

## 2. Make phone calls

Your smartphone's voice recognition understands context now and can handle more intuitive requests like "Call my wife at the office."

## 3. Read your messages

Don't want to take your eyes off the task at hand? When you hear a text message come in, ask your phone to read it to you.

## 4. Manage your calendar

In addition to briefing you on your schedule for the day, your Google or Apple voice assistant can send calendar invites or shuffle events around at your request.

## 5. Set reminders

Voice control is ideal for managing those elusive fly-by thoughts. If you're afraid you won't remember to stop by the hardware store on the way home, just ask your phone to remind you at a certain time.

## 6. Check the weather

It's a simple request most of us make daily. Instead of launching an app and focusing your attention once again on a glowing screen, why not just ask Siri or Google?

## 7. Set alarms and timers

There really is no need to manually set an alarm anymore. For pulling dinner out of the oven or pulling yourself out of bed, setting alarms and timers via voice is as effortless as it gets.

## 8. Get directions

Why spend that extra 30 seconds setting up navigation when you could just ask your phone "How do I get home?" Both Apple and Android are great at offering multiple routes for public transportation, as well.

## 9. Calculate

Conversions and math problems are easily handled by Siri or your Google Assistant. No need to launch a calculator.

## 10. Take a picture

Often, capturing the moment comes at the cost of missing it yourself. As long as your voice assistant has permissions to your camera app, asking your phone to take a picture will quickly launch your camera app, count down from three, and snap. (Your phone will oblige selfie requests, too.)





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