

# AVS FORUM

## Home Theater of the Month: The Manor Dedicated Home Theater

by Mark Henninger on July 8, 2020



For July 2020, I've got a very special Home Theater of the month to share. This past March, I took a trip to England and personally experienced this statement in what's achievable. The Manor Dedicated Home Theater is the work of Nigel from Absolute Ultimate AV, and it fulfills his vision to create an ideal environment for full cinematic immersion.

For those who know Nigel from his many contributions to the forums, it will come as no surprise that he's gone all out to ensure the audio and visual experience of his winning entry, The Manor Dedicated Home Theater, is second to none. It is a statement in what's achievable when the goal is total immersion. Then again, this is no hobby for Nigel from Absolute Ultimate AV, it's serious business in terms of showing what the company is about, as well as a personal statement of Nigel's uncompromising approach to dedicated home theater.

The reason I took a trip across the Atlantic to visit this theater is I recognize its appeal to the AVS Forum crowd that understands the value of a truly dark room. If you spend tens of thousands on a

projector capable of profound high-contrast performance, you don't want the shadows and black levels to be impacted by room reflection. And yet, even though I've seen some dark home theaters in the past, none come close to The Manor Dedicated Home Theater in this regard.

And on the audio side, there's the heretical notion that you don't have to go crazy on acoustic room treatments, you can let Steinway's RoomPerfect do some of the heavy lifting. My subjective opinion is that the approach works "perfect" just as the name promises.





## KEY FEATURES:

- 9.8.4 Dolby Atmos audio system by Steinway & Sons / Steinway Lyngdorf.
- Front soundstage comprises a total of five Steinway IW-66s (LCR + Wides); plus a colossal 3m /10ft high stack of Steinway LS Boundary Woofers for a total of 16 12-inch drivers, positioned corner-loaded in the front left and front right corners of the room, either side of the projection screen.
- Surrounds and Back Surrounds comprising Steinway IW26Vs; and Steinway IC26s for the immersive layer Top Fronts and Top Rears.
- Steinway P200 Processor.
- 6 x Steinway A2 Digital 4-Channel Amplifiers; plus 1 x Steinway A1 Digital 2-Channel Amplifier.
- RoomPerfect room correction; and my own custom-programmed Steinway 'Voicings'.
- 15ft / 4.6m wide 2.065:1 Aspect Ratio Constant Image Area (CIA) projection screen, by DT Screens. With 4-way automated masking; and ATWow Acoustically Transparent D65 woven screen material.
- 16.5ft / 5.0m wide Automated Artwork Screen Cover; with printed 'Toy Story' vector artwork by artist Andrew Timbs; illuminated via specialist Optical Framing Projection Lighting by Anthony Juer Lighting.
- JVC RS3000/NX9 projector with Lumagen PRO Video Processor, professionally calibrated and operating HDR Frame-by-Frame Dynamic Tone-Mapping (DTM) in addition to Automatic Aspect Ratio Detection.
- Automated control system by Control4. Custom programmed according to our particular specifications by Pro Media Solutions. Featuring control via dockable iPad plus Phone App.

- Source equipment comprises:

- Pioneer UDP-LX800 4K UHD Blu-Ray Player

- OPPO 205 4K UHD Blu-Ray Player

- Panasonic DP-UB9000 4K UHD Blu-Ray Player

- ROKU Premiere; streaming Netflix, Amazon Prime, Disney+, Youtube, etc...

- SKY Q

- In-room lighting by Gradus, the same brand of lighting that features within commercial Dolby Cinemas and IMAX theaters.

- Perfectly optimized blacked out environment. The entire room has been finished in the blackest least light reflective fabric material in the world, and the blackest least light reflective carpet and rugs, yielding a total absence of environmental reflections for maximum immersion and optimum video performance. Fabric walling by Quiet Interiors. Fiber Optic Star Ceilings with Shooting Stars by Wiedamark.

- Perfectly silenced room. All AV equipment is situated within a different room than the theater, with the projector projecting through a port glass situated within the center of the back wall, comprising specialist non-reflective clear optical pane of glass by Edmund Optics. Doors comprise the same acoustic doorsets that are used for sound-proofing in professional recording studios. The background noise floor of the room is so deathly quiet that it literally cannot be measured, because it is below the minimum threshold of professional SPL meters.

*This is a real photo of the theater. Notice how the room soaks up all the ambient light, it's a true "black hole":*





## INTERVIEW:

**AVS Forum:** What were your primary design goals for this theater? (e.g., sound isolation, decor, number of audio channels, acoustic treatment, size and shape of screen, number of seats, etc.) / What are some unique aspects or features of your home theater?

**Nigel:** I am going to answer these first two questions at the same time, because there is a commonality with respect to the answers applying to both questions. In other words, my primary design goals of this theater are some of its unique aspects / features.

My ultimate goal is always to achieve the absolute ultimate with respect to the audiovisual performance, in its own right, but also in particular from the AV equipment that is being used; as well as at the same time achieving optimum immersion with respect to both the viewing and listening experience. Accordingly, the targets in this instance included achieving a perfectly silenced room, wherein the background environmental noise floor is as low as possible; as well as eliminating entirely any and all environmental resonance. In addition to this, in order to achieve the perfect environment for video projection, and thereby to achieve the best possible video performance from the projector, and optimum immersion with respect to the viewing experience, a room with a complete absence of environmental reflections. I also wanted to minimize the need for acoustic room treatment.

**AVS Forum:** How long was the planning phase?

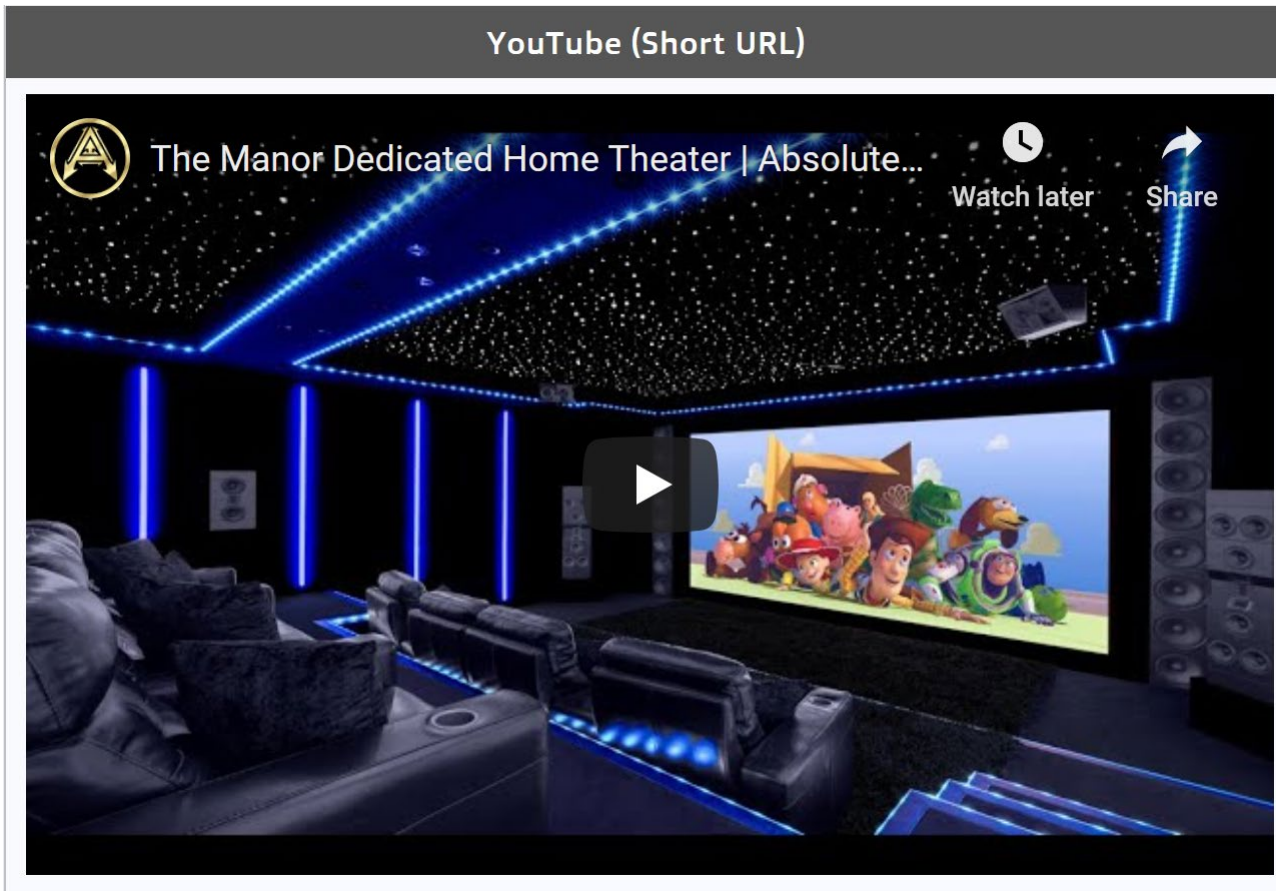
**Nigel:** 3 months

**AVS Forum:** How long was the building phase?

**Nigel:** 18 months.

## Check out this video of The Manor Dedicated Home Theater:

<https://youtu.be/br32luTomOU>



**AVS Forum:** What construction materials and techniques did you use?

**Nigel:** I wanted a live room that's also devoid of audible vibration / resonance. Hence the usage of wood and wood panelling was kept to a minimum. The same goes for acoustic room treatment.

The entire room is essentially a steel reinforced concrete box. The shell comprises a steel I-beam frame, which was then encased in 2 feet wide steel reinforced concrete. The floor is also steel reinforced concrete. As is the raised flooring platform. The ceiling is as well, but this also includes a figure-of-eight bulkhead that runs around the perimeter of the room and across the middle. This is constructed using a timber framework and finished in 1" hardwood plywood and the whole thing infilled with a specialist acoustic expanding foam, so as to eliminate any and all potential for audible vibration / resonance. The external walls are 2-feet thick of steel reinforce concrete. A decoupled internal wall comprising 4" thick high-density concrete blocks sits decoupled via a 2" gap inside of this, with the inner face finished in 1" hardwood plywood that's glued and screwed to the concrete.

The room is situated entirely underground and so it akin to a nuclear bunker. In other words, if World War 3 were to happen whilst I am watching a movie, I will most certainly be fine 🙌

**AVS Forum:** How much was true DIY (with your own hands and those of friends and family) and how much was contracted out? / If you contracted some of the work out, who or what company was the designer, installer, etc.? Who did the acoustic design, audio/video calibration?

**Nigel:** Again, I am going to answer the both of these questions together because my answers will apply to both.

I personally carried out all of the design work and project managed the whole thing from conception to finish. I personally installed all of the cabling, as well as the AV equipment, and carried out the setup and calibration of the audio and video equipment as well. The construction was carried out by my property company's workforce under my management and supervision. I personally installed all of the speakers and the starfield ceilings with their assistance. I designed all of the control systems but contracted out the installation, setup, and programming to a third party (Pro Media Solutions). I designed the lighting. Gradus installed all of the Gradus lighting. Anthony Juer supplied and installed the framing projection lighting for illuminating the 'Toy Story' giant artwork projection screen cover. The rest was installed by subcontracted electricians. I selected the choice of carpet (Westex Jet Black) and fabric (Whaley's Black Velvet Devore) for the room finishes; however these were installed by subcontracted third parties. I also installed the seating (Serenity by FrontRow Cinema Seating). I sourced the acoustic doors and these were installed by my workforce under my supervision. Same goes for the bespoke Port Glass (by Edmund Optics).

**AVS Forum:** What were your biggest challenges? How did you meet them?

**Nigel:** Achieving the objective of a perfectly silenced room; and in particular in this regard ensuring that there was no audible noise transmission from the equipment room into the theater. A multi-pronged strategy needed to be implemented in order to achieve this. All equipment bar the speakers is situated outside the theater within an equipment room that is located behind the back wall of the theater. The front of the equipment rack is accessible from the theater, but the rack itself is recessed behind the back wall, and its front is sealed behind a sound-proofed acoustic door. The rear of the equipment rack is open and readily accessible from within the equipment room. The entrance door with respect to the theater is the same type of acoustic doorset that's used for sound-proofing in professional recording studios. The HVAC system was designed from the outset to operate silently and appropriate measures taken to ensure that this was indeed the case. The port glass was bespoke and kept to as small as possible so as to minimize the surface area and thereby any sound transmission. The audio system is such that you can turn the volume up to the absolute maximum and put your ear right next to a speaker and there is absolute silence. No hiss, no hum, nothing. Dead silent. This is one of the many aspects I like about Steinway audio systems. The objective was met and the resultant background noise floor of the room is so deathly quiet that it literally cannot be measured, because it is below the minimum threshold of professional SPL meters. If an ant broke wind you'd hear it.

**AVS Forum:** Does your theater have a name? If so, what is it, and why did you choose that name?

**Nigel:** The Manor Dedicated Home Theater. Because it's a dedicated home theater that is situated within a manor house estate.

**AVS Forum:** What were the greatest moments in the process?

**Nigel:** Ooh that's a tough one. There's been so many great moments regarding this particular project. I'd have to say the 'Top 3' are (in no particular order):

Commencing digging 'the hole'.

Powering on the audio system for the first time.

And demoing the home theater to your good self 😊

**AVS Forum:** What is the URL for your build thread?

**Nigel:** <https://www.avsforum.com/forum/19-de...e-theater.html>

**AVS Forum:** What is your profession?

**Nigel:** I am an AV professional. My company is Absolute Ultimate AV and specializes in ultra-high-end AV.





## REVIEWS:

### AVSFORUM MEMBERS:

- "That is the most awesome home theater I've ever seen. Talk about geeking out! It's like owning your own personal AMC, but better."
- "Cosmetically and Acoustically Stunning: I LOVE the all black look, the lighting, the room size, the attention to building a super quiet room, etc... This is like the Rob Hahn theater but with my cosmetic preferences!! Well done!!"
- "Truly amazing! That's the stuff dreams are made of for the average Joe Blow Home Theatre Enthusiast like myself. I would never leave that room!"
- "Wow, amazing design and even more amazing set of components!"
- "What a wonderful movie watching theater! If I had something like that, I might NEVER leave home...."
- "Breath-taking. My heart is racing."
- "If there ever was a home theater that said "Play Star Wars on me" this could be it."
- "Truly astonishing! Just wait till you see their next build with the Christie Eclipse Projector!!!"
- "Masterpiece...an absolute masterpiece!!!"
- "Wow, this is mind blowing! Congratulations on building this awesome theater and the much-deserved recognition!"

- "Absolutely brilliant! Just wow! Gorgeous room. You really know how to build HT's! It's beautifully made and sounds exquisite."
- "An enormous amount of time, thought and energy into making a no compromise theatre. This is the stuff of AV enthusiast dreams!"
- "Truly breath-taking!"
- "EPIC Beautiful work!!!"

### SOUFILMS:

"It's absolutely stunning this is the ideal home cinema. You simply can't describe it with words you must be there and experience it!!!!!"

### MARK HARRIS:

"By far and away the best I've ever seen."

### GECKO HOME CINEMA:

"I had the pleasure of a demonstration of this system last week and after 30 years in the home cinema industry, I can say this is the best system I've ever heard. TOTALLY INCREDIBLE IN EVERY WAY"

### STEVE WEBBER:

"The performance is simply breath-taking and by far the best available on the market. Stunning in every way!!!"

### ZEBRA HOME CINEMA:

"Simply incredible! I love the video production and this is exactly what I dream to create in the Midlands. Congratulations!!!"