



Newsletter

October 2026

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President's Message

By John Harvell

1. **Elections for the 2027 club leadership** are coming up during the first week of December. We still have some space for club members to volunteer for positions in the club leadership. Available positions include President, Vice President, Secretary, Treasurer, Newsletter Editor, and Steering Committee member. To volunteer, please submit your name and information to John Harvell at jharvell_1@cox.net.
2. **YouTube videos** that you might find interesting:
 - a. <https://www.youtube.com/watch?v=nw-ykMH2y60> Provides a video on speaker placement, time alignment, and toe-in adjustments for arbitrary rooms (symmetric or unsymmetric)

- b. <https://www.youtube.com/watch?v=BghRF5xyIHU> In the way of Paul Harvey ("*And Now the rest of the story*" fame), this video provides a detailed example of how Digital Audio distortion sounds in a system that experiences it and shows how they actually made the measurements and the associated comparison.
3. **We have three events left** to finish out 2026 (see below for more details)
 - a. Surround System demonstration at Ravi Velnati's house on 24 Oct.
 - b. Demonstration of Subwoofer Placement and Integration at Parish Hall on 18 Nov.
 - c. Annual Club End-of-Year Party at John Harvell's house on 12 Dec.

All the best,

John

Next Meeting: Saturday, October 24, 2026 (2:00-6:00 PM)

Multichannel Final Speaker Demo Event at Ravi Velnati's Residence

16827 S 27th Ave

Phoenix, AZ 85045

Please RSVP to Ravi at HighResHiFi@gmail.com or (248) 520-8628

State-of-the-art Multi-channel demonstration using Final Electrostatic panels with 3 sessions:

- Playback of Native 5.1 Multichannel DSD Super Audio CD tracks (5 floor-level speakers and a subwoofer).
- Stereo track playback using DIRETTA ROON SERVER STREAMING to 7.1 multichannel upconversion playback using Jim Fosgate's (Inventor of Dolby Surround) 7.1-channel pure analog, all-tube multichannel processor (7 Floor-level speakers and a subwoofer).
- OPTIONAL - TIME PERMITTING - Full Dolby Atmos presentation using a 7.6.4 layout (7 Floor-level speakers, 6 subwoofers, and 4 height speakers) with a TRINNOV Altitude 32 processor.

Future Months:

- **November 18th** from 7:00 TO 9:00 PM at Faith Luther Parrish Hall. Subwoofer Setup and Demo by David Snyder. David will walk through the process of identifying a subwoofer or subwoofers to augment primary speaker systems. The methods for identifying subwoofer location(s) that can best address lower octave balance across a range of listening positions. Approaches to properly integrate (amplitude and time align) the subwoofer with the primary speaker system.
- **December 12th** (at John Harvell's house) 2nd Annual end of Year Club Party (Potluck Event)

Additional meeting ideas:

- D Agostino Meeting in Cave Creek
- Swap Meet
- Isolation Systems for Components
- DIY sound absorption panels
- Streamer comparison
- DIY Speaker projects presented by members who built them

Cinematic Home A/V Speaker Comparison Event

Review by David Das

I had the pleasure of attending the [Cinematic Home A/V](#) Entry Level Speaker Comparison Event on Wednesday, September 23, 2026.



This event was hosted by [John Akers](#), Owner & President of Cinematic Home A/V located at 10658 N 32nd St, Phoenix, AZ 85028.

John has built an 11.6.6 State-of-the-Art Dolby ATMOS Reference Home Theater showcasing the revolutionary Trinnov [WaveForming](#) Technology to deliver the ultimate immersive cinematic experience. For a detailed description of the equipment, please read my [40-page review](#).

This acoustically treated Reference Home Theater room was used for comparing the speakers.

The scope of this event was to compare entry-level speakers from [Estelon](#), [YG Acoustics](#), [Fyne Audio](#), and [Totem Acoustic](#). These are some of the brands carried by Cinematic Home A/V.

Unfortunately, the Totem Acoustic speaker got damaged at CEDIA, leaving us with these 3 contenders:

- [Estelon AURA](#) (\$31,800/pair)
- [YG Acoustics Talus](#) (\$19,900/pair)
- [Fyne Audio F702S](#) (\$11,999/pair)

Speaker Comparison – Round One

John Akers got us seated promptly at 6 pm in his Reference Home Theater. He explained how the [HiFi Rose RS520](#) was being used as a DAC and music streamer. The [Accuphase E-3000](#) was being used as a stereo power amp to drive the speakers. The speaker cables were [AudioQuest Rocket 44](#), while the interconnect cables were [AudioQuest Red River](#).

Up for comparison in **Round One** were the Fyne Audio F702S against the YG Acoustics Talus floorstanding speakers.

Here you see the Fyne Audio speakers flanked by the YG Acoustics Talus on the outside.



John explained that he would play short excerpts from the same song twice on Speaker A, then the same song on Speaker B.

John began by playing “*Birds*” by Dominique Fils-Aimé on the Fyne Audio speakers.

Next, the same song was played back on the YG Acoustics speakers. I preferred the YG sound. It had more sparkle and clarity. The Fyne Audio had more bass, but it was not as defined as what I heard on the YG. Some may prefer the warmer and thicker tone of the Fyne Audio speakers.

The 2nd test track was “*Jealous*” by Labrinth.

The 3rd test track was “*Trouble’s What You’re In*” by Fink

The 4th test track was “*Passacaglia*” by Adam Baldych & Leszek Mozdzer

The 5th test track was “*People Get Ready*” by Eva Cassidy.

The 6th test track was “*Gimme That Old Time Religion*” by Dr. John.

After listening to these 6 test tracks on both the Fyne Audio and YG Acoustics, I chose the YG as my personal favorite. I liked the extra clarity and tighter

textured bass on the YG. It sounded, sweeter, richer, refined and more detailed to me.

However, many club members preferred the more full-bodied sound of the Fyne Audio speakers. It had a more relaxed and smoother sound with a bass lift. By majority vote, the Fyne Audio was declared the winner in Round One. John mentioned that in high-end audio, more expensive speakers do not always translate to better performance. It comes down to personal preference. John said that the Fyne Audio Speakers offer the best value in their price category.

Speaker Comparison – Round Two

For **Round Two**, John had the Fyne Audio F702S against the Estelon AURA speakers.

Here you see Fyne Audio speakers flanked by the taller Estelon speakers on the outside.



The 1st test track was “*Birds*” by Dominique Fils-Aimé.

The 2nd test track was “*Man in the Long Black Coat*” by Bob Dylan.

The 3rd test track was “*Jack of Speed*” by Steely Dan.

The 4th test track was “*Brothers in Arms*” by Dire Straits.

Wow! What a difference. The Estelon AURA speakers surpassed the Fyne Audio F702S speakers in every metric. The Estelon AURA speakers offered much better clarity, resolution, sweetness, top-end air, and tighter, more articulate bass. They performed in a different class altogether.

While many club members were torn between the Fyne Audio and YG Acoustics speakers in Round One, there was no need for a debate in Round Two. The Estelon AURA speakers were the clear winner in this entry-level floorstanding speaker shootout.

Here is the **Qobuz Playlist** for the 9 demo songs that were played.

<https://open.qobuz.com/playlist/71418475>

Refreshments

John and his brother-in-law **Joel** were gracious hosts for the evening. Joel brought in all the refreshments, along with plenty of drinks for the bar.



Closing thoughts

The Fyne Audio F702S speakers were the winner in Round One by popular vote, although my personal preference was the YG Acoustics Talus speakers. It came down to a personal choice. Those who favor a more full-bodied sound with extra bass would pick the Fyne Audio. Those who prefer the extra richness, clarity, and tighter bass articulation would pick the YG Acoustics.

When the Fyne Audio speakers were pitted against the Estelon AURA speakers in Round Two, the differences were significant. The Estelon AURA speakers exhibited greater transparency, detail, smoothness, richness, brilliance, and a faster, tighter bass. It was in a different class.

This was an enlightening demo that showed us that a higher-priced speaker does not always guarantee better performance. Sometimes it depends on the

test track being played, the room placement, or just personal preference for a tonal balance that sounds euphonic to one's ear.

We all had a great time. It was the perfect way to spend an evening listening to our favorite demo songs in John's acoustically treated Reference Home Theater.

On behalf of our Arizona Audio Video Club, I would like to thank John and Joel for hosting yet another enjoyable and educational Club Event.

Read my detailed [25-page review](#) to see:

- Detailed specifications of the speakers, power amplifier, Streamer/DAC, speaker cable, and interconnects.
- A tour of Cinematic Home A/V with high-resolution photos.

Dave's Record Reviews

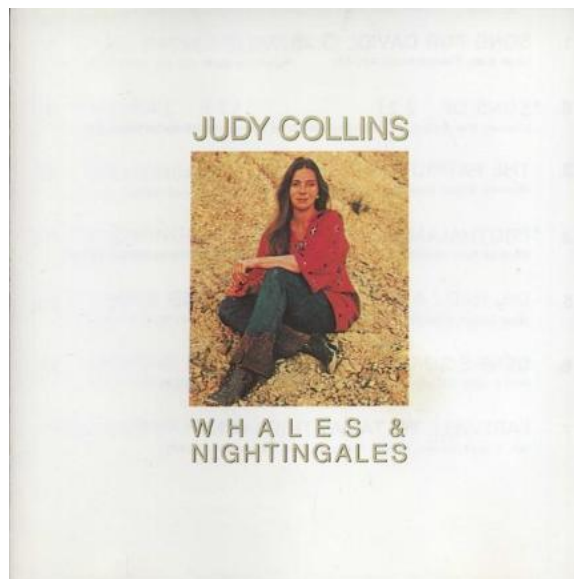
Championing worthy albums from the past that should not be forgotten...

For the AZ Audio Club ~ October 2026

#44

Judy Collins – **Whales & Nightingales**

(LP & CD, Elektra, 1970)



It was 1967 when I fell in love with Judy Collins.

To be just a *bit* more precise, it was when I fell in love with her music, in the form of her sixth album, ***In My Life***, that had been released the year before. Her

beautiful, clear, pure, and powerful soprano vocals and passionate treatment of meaningful songs hooked me quite thoroughly indeed. I quickly acquired her following album, **Wildflowers**, which cemented that love. In the years since I have collected most, though admittedly not *quite* all, of her 54-some albums. So it is past time that I review a Collins album. Either of those two mentioned titles would be worthy choices for this purpose, but I've decided that her ninth album is perhaps lesser known and deserves not to be.

Collins was born into a musical family and grew up listening, studying, and performing. She was a piano prodigy, and early classical training informs her music. But then she discovered a love for folk music and lyrics that drew her to playing the guitar. In the best folk music form she went on to hone her musical sensibilities and skills before audiences in Greenwich Village clubs and coffee houses until she signed on with Elektra Records in 1961. Her first studio album was released that year, when she was 22.

Collins' earlier albums were very much conventional folk music; mostly acoustic, spare in accompaniment, and of traditional and socially conscious themes. They certainly weren't bad, but it was with the impressive **In My Life** that she began to spread her musical wings in terms of both her musical style, incorporating some orchestration accompaniment, and the range of her sources, covering songs by the Beatles, Bob Dylan, and Leonard Cohen. (Her version of Cohen's "Suzanne" is credited with significantly raising that artist's profile in the American consciousness.) Her development continued with her next few albums, and an argument *might* be made that it reached its fruition with **Whales and Nightingales**. Here she continued to draw material from eclectic sources, including songs from Joan Baez, Jacques Brel, Pete Seeger, Bob Dylan, and others, doing only one of her own. I will – ahem – comment on some of the highlights.

The album opens with "A Song for David," a touching song written by Baez about her then-husband's imprisonment as a conscientious objector. Collins' interpretation is different from Baez's, but she imbues it with it with as much sincerity and feeling. "Sons Of" is about how sons have been lost, most often in the conflict of wars. (And a word of context; this album was, it should be remembered, released in the time of the major conflict of the Viet Nam war, and Collins matured during and was very much an artist of that time.)

The sole song/s penned by Collins herself is the two-part "Nightingale I" and "Nightingale II." The former is a relatively short, pretty vocal about a search for truth. The latter is a longer, orchestral instrumental-only number where Collins' classical background comes to the fore. It is almost pastoral but varied and quite lovely.

"*The Patriot Game*" is another song lamenting war, but a very beautiful one as rendered by Collins. It's the lament of an Irish republican volunteer who is dying of his wounds, considering the cost of patriotism and, ah, related matters. (The song has its own Wikipedia page, by the way.) A brief quote:

*"Come all ye young rebels, and list while I sing,
For the love of one's country is a terrible thing.
It banishes fear with the speed of a flame
And it makes us all part of the patriot game."*

There are other songs I will forego to mention, but there are a couple of very special ones that I cannot fail to. Side one (for those fortunate enough to be listening to a vinyl copy...) closes with the traditional Scottish "*Farewell to Tarwathie*", which Collins sings to the accompaniment of the recorded cries of humpback whales. Her vocals – and oh that voice! – weave around and through the echoing sound of the whales as a backdrop, and it is a pleasure to the ears. I wish there were an audiophile remastering of this song and album that might do them credit, but I don't believe there is one.

And another perhaps even more notable song is the final one of the album, Collins' a cappella version of the classic hymn "*Amazing Grace*." She is backed by a choir, and it is... well, amazing. Not only is it simply, positively, absolutely gorgeous, it did quite well for her in national and international charts. In the UK especially it reached #5 and had a long chart run. Also, in 2017 it was selected by the Library of Congress for preservation in the National Recording Registry as being "culturally, historically, or aesthetically significant." Quite an honor.

Whales and Nightingales was certified Gold by the RIAA in 1971, for sales of over 500,000 copies in the US. Though not, as noted, having been the subject of an audiophile release such as this recording should certainly merit, there have been re-pressings of the LP and CD issues of it that are available on Discogs for low prices that belie the value of the music. And it seems to be, I admit, available on streaming platforms for those folks who for some reason continue to limit themselves to that means of music reproduction.

ALSO RECOMMENDED

In My Life (LP & CD, Elektra, 1966) – Here Collins stretched beyond the spare and limiting folk orientation of her earlier albums to present ambitious songs that retained her social conscious orientation but did so with greater accompaniment and depth of contemporary material. A really excellent album.

Colors of the Day: The Best of Judy Collins (LP & CD, Elektra, 1972) – Some of the best songs from ***Whales & Nightingales*** are included in this collection, plus a number of other GREAT Collins songs. This was her best-selling compilation

album and it went platinum. If you only have **one** Judy Collins album (which to my mind would be quite unfortunate) this should probably be it...

Pretty darn good Symphonies that are pretty much unknown

By Roy Cook

Researching Gramophone, Reddit, YouTube, various AI sites, and Google has revealed a significant number of symphonies lauded by some critics yet escaping major notoriety. After listening to a whole lot of music that was new to me, I am adding four pieces to my “Best Symphonies” list.

Josef Suk (1874-1935): *Asreal Symphony in C minor*

Very somber piece; if you want to be reflective this is for you. I like this piece better than the standard requiem's I've heard. This was written in remembrance of his deceased wife and Father-in-law Antonin Dvorak.

Vasily Kalinnikov (1866-1901): *Symphony No. 1*

Very pretty, also very Russian -- holds your attention quite well, decent inclusion of musical variety. It's unfortunate that he died at age 34 of tuberculosis. Many listeners also like his 2nd, I did not.

Nickolai Myaskovsky (1881-1950): *Symphony No. 21*

Myaskovsky packs a lot of content into a symphony that is a little over 14 minutes long. The opening is especially good. Excellent lyricism with nice structural unity.

Franz Liszt (1811-1886): Symphonies 1 & 2

Liszt is fairly well known compared to this group, and is only included as he isn't recognized for symphonies. The two symphonies are listed together as they are always presented together and are always performed/recorded together. The music is sweet, engaging, never discordant, and has a good finale with male chorus, and a solo performer.

These four symphonies were cited in multiple articles as being really great – see my commentary – You may want to give them a try

Franz Berwald: Symphony No. 3 – Light and easy on the digestion, recommended, but not good enough to make the list. Many critics like Berwald.

Karl Goldmark: Rustic Wedding – the second movement is gorgeous; if only the rest was.

Franz Schmidt: Symphony No. 4 – Very somber, occasional blasts of percussion and horns then back to sleep. It's ultimately like a bad dream you can't come to grips with.

Amy Beach: Gaelic Symphony -- first symphony written and published by a female American composer. Contains some nice instrumental solos, ultimately forgettable.

I also listened to symphonies by: Bohuslav Martinů, Thomas Breton, Ernest Chausson, Kurt Atterberg, Mily Balakirev, Rued Langgaard, Zdenek Fibich, Wilhelm Stenhammer, Hans Rott, Lukas Foss, Karl Goldmark, Sergei Tanayev, Ernest Moeran, Albert Roussel, Louise Ferrenc, Cyril Rootham, Juan Arriaga, Jan Wenzel Kalliwoda, Komei Abe, Erikki Melartin, Dora Pejacevic, Karl Hartmann, Mieczyslaw Weinberg, George Lloyd, Rued Langgaard, Havergal Brian, Vagn Holmboe, Einojuhani Rautavaara, and a few more. None of these composers could hold my attention.

It was interesting that none of these composers had a theme in any of their works. Most of the greatest composers would incorporate a central theme. Mahler, Beethoven Tchaikovsky, Sibelius, all come to mind.

Most symphonies lack structure (other than the movements and speed descriptors (Lento, allegro, adagio, etc.). Way too many compositions are like a leaf flowing in a stream, going from point a to b without any meaningful direction, putting the listener to sleep.

Here is my abridged list of the (IMHO) Greatest Symphonies of All Time

I certainly don't pretend to be an expert as regards classical music, but I know what I like and most of these pieces are considered "warhorses" that are frequently played by the worlds symphony orchestras. As you can see, I am not a fan of Baroque or most modern pieces. I find most older music (pre-Beethoven) to be boring except for Bach who transcends genius.

If you believe I have forgotten a piece that absolutely belongs on the list please enlighten me, I try to be open minded. I would truly love to have this list include best available performances, but that would take a massive amount of time.

As for recording companies/labels, I tend to prefer Berliner Philharmoniker, Decca, London, Lyrita, EMI, and Reference Recordings.

Anything highlighted in orange is new to this list.

The **yellow-highlighted** works are my top favorites.

Copeland, Aaron	Symphony No 3
Beethoven Ludwig Van	Symphony No 6, No 7, No 9
Berlios, Hector	Symphony Fantastique
Borodin, Alaxander	Symphony No 2
Brahams, Johannes	Symphony No 1
Bruckner, Anton	Symphony No 6, No 7, No 8, No 9
Smetana, Bedrich	Má Vlast
Saint-Saëns, Camille	Symphony No 3
Debussy, Claude	La Mer
Elgar, Edward	Enigma Variations
Gershwin, George	An American in Paris, Rhapsody in Blue
Grieg, Edvard	Peer Gynt
Holst, Gustav	The Planets
Hovhanhess, Alan	Mount St. Helens
Kalinnikov, Vasily:	Symphony No. 1
Liszt, Franz	Symphony 1 & 2
Mahler, Gustav	Symphony No 1, No 2, No 9
Mozart, Wolfgang	Symphony No 40, No 41
Mussorgsky/Ravel	Pictures at Exhibition
Prokofief, Sergei	Alexander Nevsky, Lieutenant Kijé
Rachmaninov, Sergey	Symphony No 1, No 2, No 3
Rimsky-Korsakov, Nikolai	Scheherazade, Symphony No 2
Rodrigo, Joaquin	Concierto de Aranjuez
Shostakovich, Dmitri	Symphony No 5, No 7, No 10, No 15
Sibelius, Jean	Symphony No 1, No 2, No 3
Stanford, Charles Villiers	Symphony No 1
Strauss, Richard	Also Sprach Zarathustra, An Alpine Symphony
Stravinsky, Igor	The Rite of Spring
Suk, Josef	Asreal Symphony
Tchaikovsky, Pyotr	Symphony No 4, No 5, No 6, Manfred
Vaughan Williams, Ralph	A London Symphony

WASTING TIME ON THE INTERNET CHANGE

By Jim Welby

Editor's Note: The original inspiration for “wasting time on the internet,” club member David Hjortland, sent me some great memes that might appeal to music lovers and audiophiles over the last couple of months - here are some more (and one of my own):



Paul Johnson's Playlist

- Shoshana Bean | Only Smoke | Sing Your Hallelujah
- Leela James | Fall for You | Thought U Knew | 2BHonest
- John Leventhal | National Drift
- Miranda Lambert | Crisco
- Kenichi Tsunoda Big Band | Big Band Supreme | Big Band Sound | Lacquer Master Sound | Big Band Special
- Greg Freeman | All Set The Bone
- Danielle Nicole | Fireflies | The Love You Bleed | Cry No More
- The Texas Headhunters | Rise and Shine
- Sheryl Crow | Pick You Up
- John Prine | Found Dogs
- Todd Snider | My Second Rodeo | High... Lonesome And Then Some
- The Tallest Man On Earth | Just Beyond Endless Mountain
- Talking Hearts | Memory Lane
- Elvis Costello | My Aim Is True (49th Anniversary Box)
- The Beatles | Rubber Soul (Box Set)
- Burnett Sisters Band | Easy Come, Easy Go
- Allison de Groot and Rich Ruth | Allison de Groot and Rich Ruth
- Susanne Sundfør | Revelations Of Divine Love
- Libby Weitnauer | Freehand
- Hermanos Guitierrez | Los Osos Del Condor
- Joy Oladokun | Hope Is A Heavy Thing
- Sparks | Live On The Moon
- Bruce Cockburn | The Blood Of Others
- Steve Reich | Drumming | Music For 18 Musicians | Works 1965-1995 | The Sextets
- Boris Blank | In The Moment | Bond Between | Resonance
- Duncan Sheik | Live At Cafe Carlyle | Claptrap |
- Aysanabee | Waitin | Timelines | Here And Now | Edge of The Earth
- The Db's | Cycles Per Second | Stands For deciBels | Repercussion | I Thought You Wanted To Know
- Rodrigo Y Gabriella | Our Home | Akatsuki (w/ Hiromi)

Meet My System: Architecture, Alignment, and a 26-Year 4-Way Journey

By David Snyder

Editor's Note: AAVC member David Snyder recently published this in the Audiophile Foundation newsletter, and we are republishing it here for club members' enjoyment.



How It Started: The Spark and the 12-Inch 4-Way

My obsession with high-fidelity sound began in high school, guided by a mentor and former Ampex engineer named Larry. Larry took me under his wing, introducing me simultaneously to computer systems and high-performance audio reproduction. The defining sonic memory of that era was listening to Larry's Pioneer HPM-100 loudspeakers driven by a classic Pioneer SX-780 receiver.

The effortless dynamic scale, visceral impact, and presence of those 12-inch 4-way monitors left an indelible mark on my acoustic memory. It sparked a lifelong passion for chasing musical realism in the home. Ever since, I have been hooked on large, multi-way, full-range designs. In May of 2000, I bought my first pair of Legacy Audio Focus loudspeakers. That began a 26-year continuous relationship with the platform. I stepped up to the Focus SE with planar ribbon tweeters in 2010, moved to the dual Air Motion Tweeter (AMT) configuration in 2014, and finally transitioned to the internally powered Focus XD in 2023. Aside from a few intervening years in California where tight living quarters forced me onto 2-way stand-mounted monitors—like the Fritz Carrera 7 BE—I have spent over a quarter of a century living with, measuring, and tuning 12-inch 4-way systems.

After earning my degree in Computer Engineering from Auburn University, I spent nearly four decades as a systems engineer specializing in enterprise storage, networking, automation, and cloud infrastructure. Naturally, that professional background shaped my audio journey. I approach audio reproduction as an end-to-end systems architecture problem. Rather than swapping exotic cables or chasing boutique hardware in search of tonal flavor, my focus has always been on optimizing network transport protocols, managing electrical noise, eliminating timing jitter, and applying digital signal processing to address the hardest problem in all of audio: the interaction between the loudspeaker and the room.

The Room: Acoustic Boundaries and Deliberate Compromises

We converted the 16' 4" wide by 19' 10" deep game room with a 9' ceiling into a dedicated media room. Like many real-world homes, it does double duty as our

two-channel reference listening environment and our multi-channel home theater.

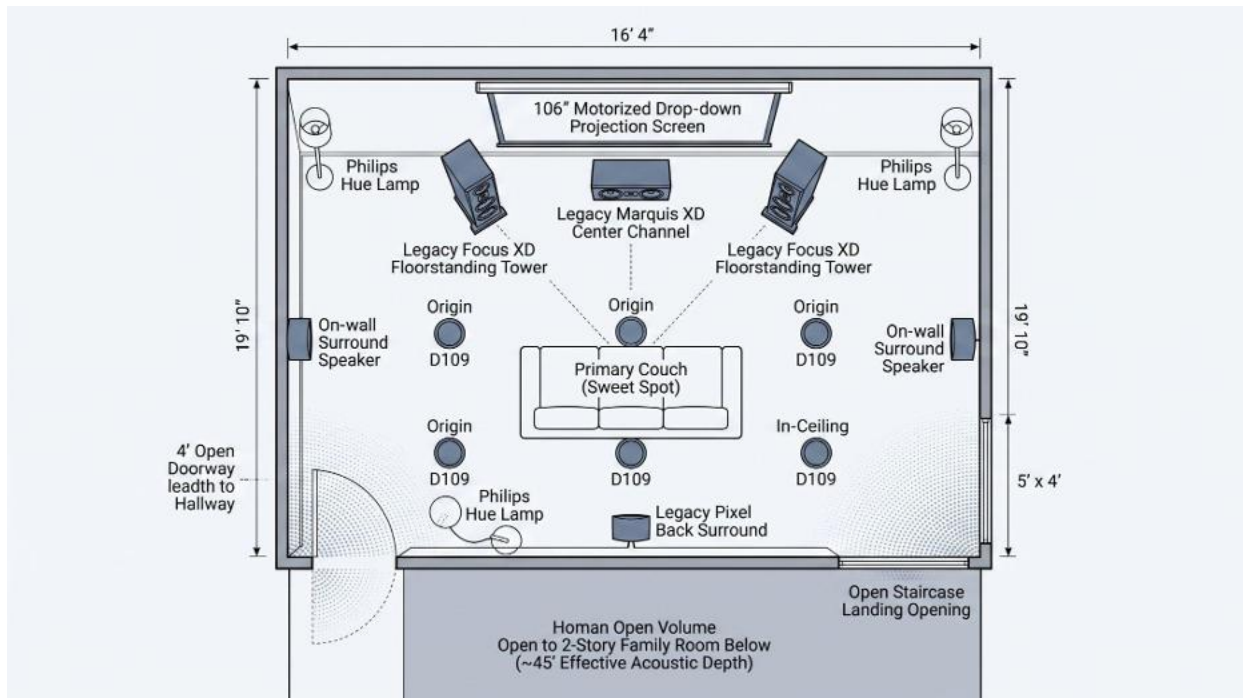
There are always compromises when stereo and surround systems share the same real estate. However, because I listen to music far more frequently than I watch movies, every major architectural decision was made in favor of two-channel stereo performance. For example, the Legacy Focus XD towers are pulled farther out into the room and positioned closer together than they would be if I had optimized purely for a multi-channel soundstage across our 106-inch projection screen. They sit exactly where they need to be to yield the widest, deepest soundstage and the most precise stereo imaging.



The room has a unique acoustic layout that works substantially to our advantage. If you are seated in the sweet spot facing the front stage, the back-right corner features a 5' x 4' opening looking out over the stair landing, while the opposite back-left corner houses the 4-foot open doorway. Centered on the rear wall between them is the single Legacy Pixel back-surround speaker, flanked by the third Philips Hue floor lamp positioned between the surround and the doorway.



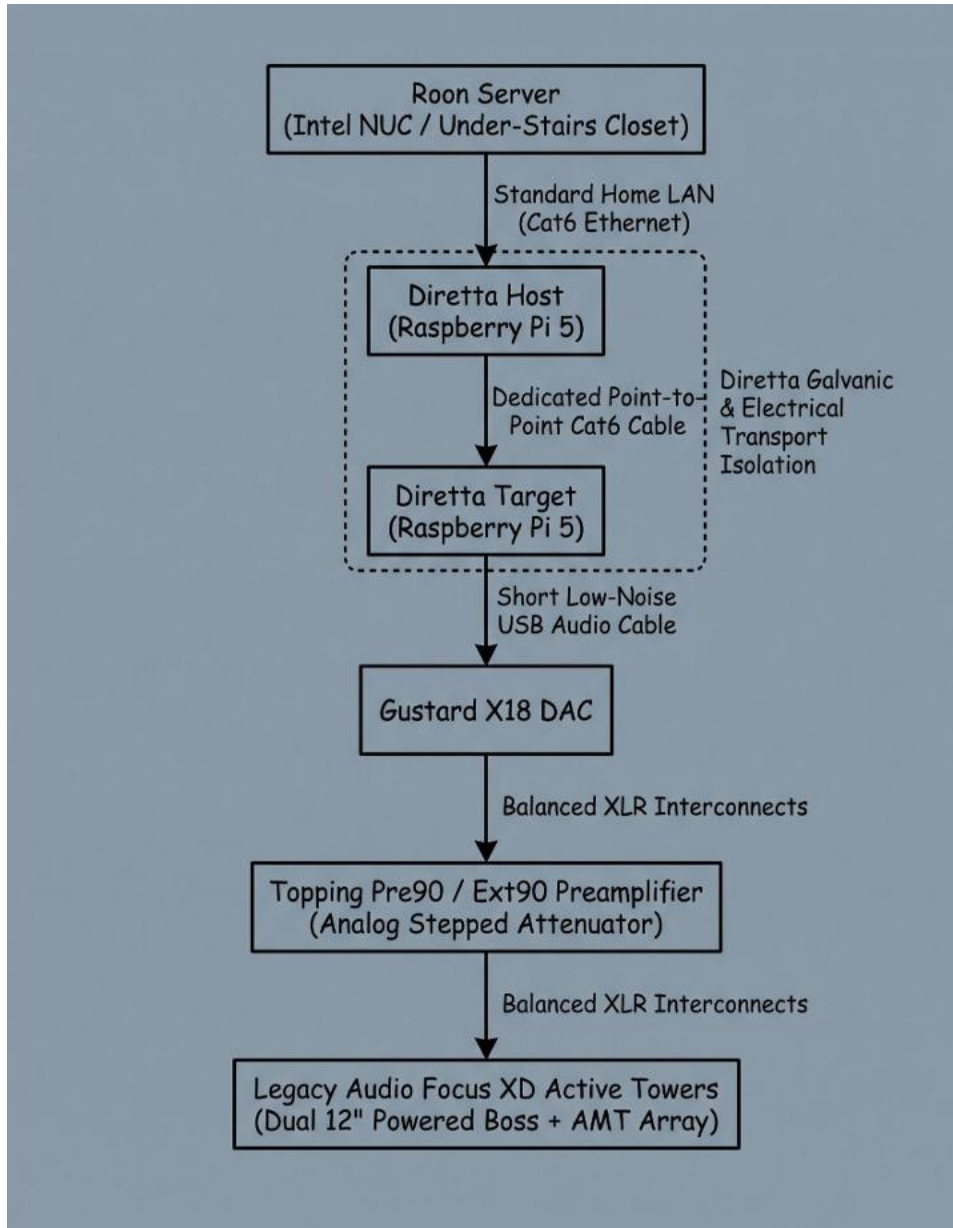
Together, these opposite-side openings leave nearly half of the rear boundary open to the two-story family room behind and below it. While a sealed rectangular room of these dimensions would typically suffer from severe bass resonance, this opening allows low frequencies to vent into the larger volume of the house. For low-frequency wave propagation, the room has an effective depth of over 45 feet. That open boundary virtually eliminates axial standing waves along the length of the room, providing clean, articulate bass extension down into the sub-audible octaves without the typical room boom.



The 2-Channel Reference Signal Path

The two-channel signal chain is deliberately lean, uncolored, and transparent. It operates on the principle that the shortest, lowest-noise path yields the most musical insight:

- **Preamplification:** Topping Pre90 with Ext90 extension module (balanced XLR).
- **Digital-to-Analog Conversion:** Gustard X18 DAC.
- **Digital Transport:** DIY dual-Raspberry Pi 5 Diretta Host/Target bridge over dedicated point-to-point Ethernet.
- **Loudspeakers:** Legacy Audio Focus XD active floorstanders (factory-configured with internal 750W ICEpower amplification for the dual 12" sub-bass drivers, driven via balanced XLR).
- **Digital Room Correction:** 66k tap FIR convolution filters generated via AudioVero Acourate v4, hosted inside Roon's DSP engine.



Volume control and source switching are handled entirely in the analog domain by the Topping Pre90/Ext90 preamplifier. It is an exceptionally transparent relay-based stepped attenuator preamp that steps out of the way of the signal, allowing the full dynamic range of the DAC to pass unhindered to the Focus XD towers.

Digital Transport: Demystifying Roon and Diretta

My primary digital source is Roon Server, running on an Intel NUC hidden away in the closet under the stairs. In my view, Roon offers the finest music management experience ever created. Its cloud-based metadata engine, hyperlinked production credits, album reviews, artist bios, and unified indexing of local lossless files with streaming services (TIDAL and Qobuz) make discovering and enjoying music enjoyable and effortless.

However, Roon has earned a reputation in certain audiophile circles for sounding somewhat flat or veiled compared to minimalistic players. That reputation is not entirely undeserved. Standard network streaming delivery relies on bursty, asynchronous packet transfers. A standard streamer receives large chunks of data intermittently, causing rapid spikes in CPU utilization and continuous current draw fluctuations. These high-frequency current swings modulate power rails within and near the streamer and DAC. Because a DAC's Power Supply Rejection Ratio (PSRR) degrades significantly at higher frequencies and within critical audio bands, this processing noise introduces low-level intermodulation distortion, grain, and artificial glare.

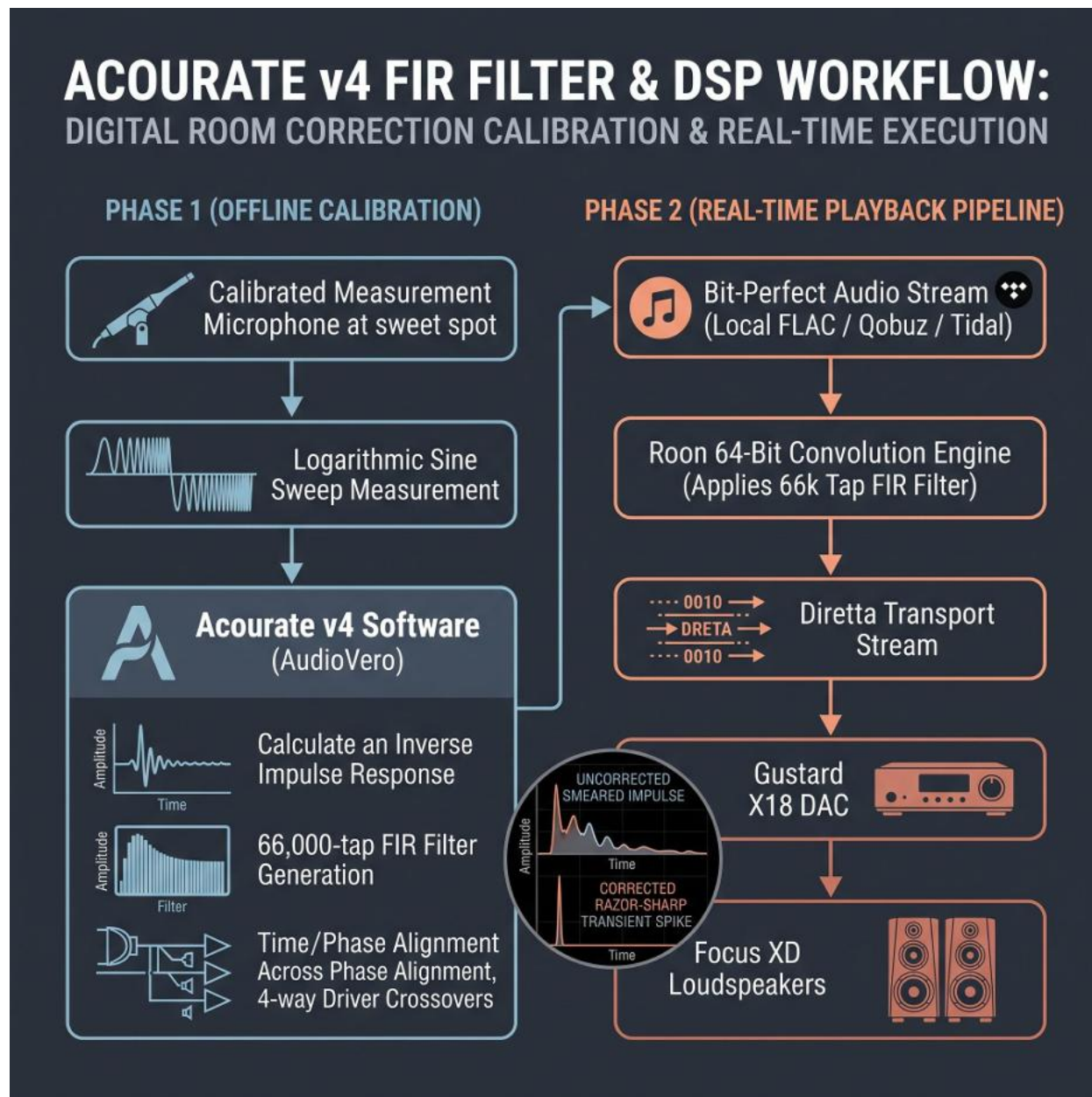
To solve this at the architectural level rather than with boutique hardware filters, I use a dedicated, low-noise transport topology running the Diretta protocol across two Raspberry Pi 5 single-board computers:

- **The Diretta Host (Pi 1):** Connects to the home LAN, acts as the Roon endpoint, receives the bursty digital audio stream from Roon Server, and converts it into a continuous, low-profile Diretta stream.
- **The Diretta Target (Pi 2):** Connects directly to the Host over a dedicated, isolated CAT6 point-to-point link. Its sole job is to feed the Gustard X18 DAC over USB.

Diretta calculates and meters the transmission of audio packets in precise, micro-synchronized intervals. By smoothing out data delivery, the Target's processor operates at an ultra-low, constant workload without current spikes. Processing noise is prevented at the source rather than filtered downstream. This allows the Gustard X18 to perform at its maximum analog potential, delivering black backgrounds, natural instrument textures, and wide dynamic contrast.

Digital Room Correction: Acourate v4 & Time-Domain Alignment

I have used digital room correction for more than ten years, and it is an essential part of my reference setup. I generate custom 66,000-tap finite impulse response (FIR) convolution filters using Dr. Ulrich Brüggemann's **Acourate v4** (AudioVero), applying them in real time within Roon's 64-bit DSP engine.



Most commercial room correction systems focus almost exclusively on frequency response—flattening peaks and partially mitigating dips in the

amplitude domain. While smooth frequency response is important, Acourate's real magic lies in the **time and phase domains**:

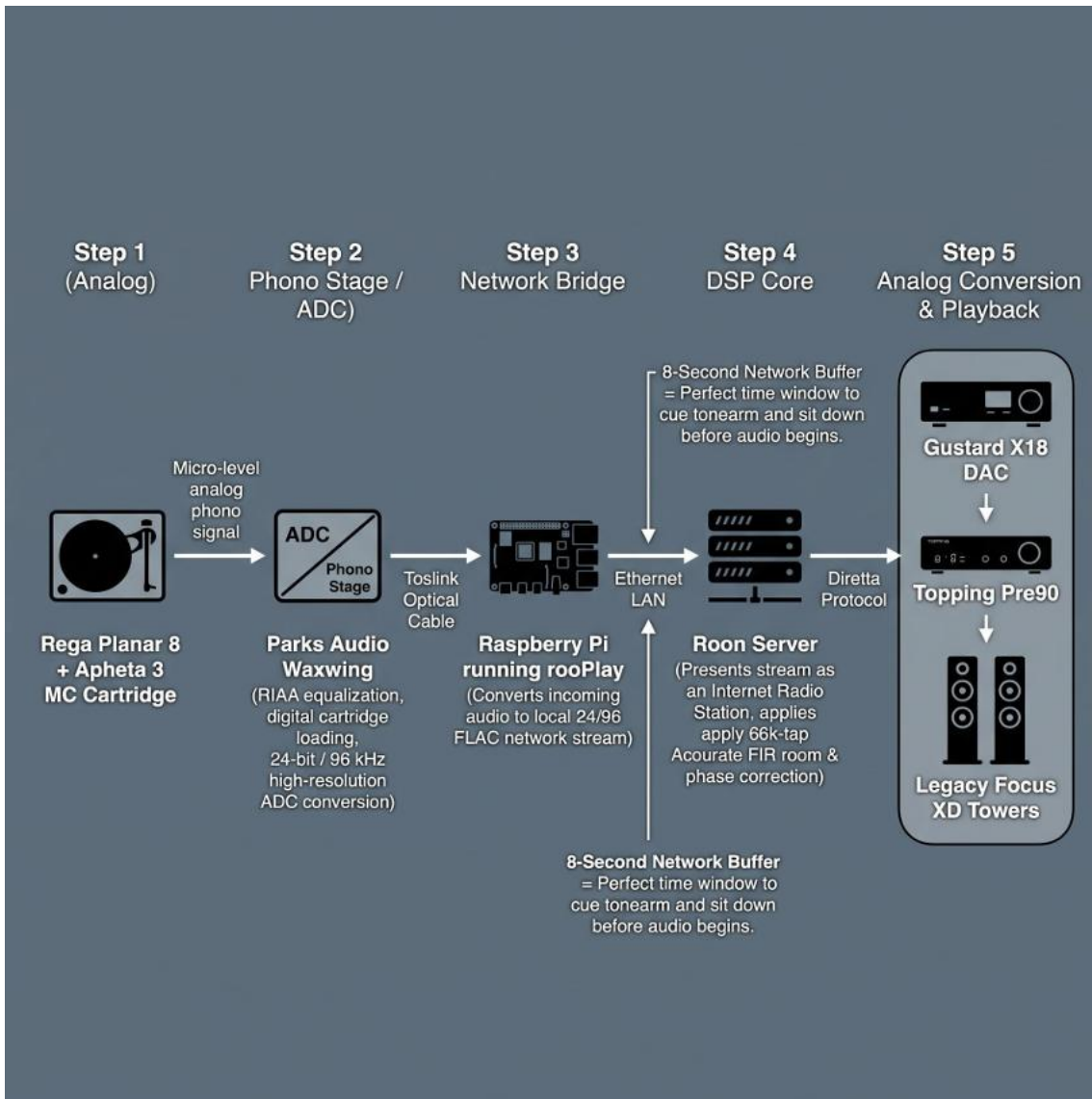
1. **Driver Phase Linearization:** In a complex 4-way, 6-driver speaker like the Focus XD, passive and active crossover networks introduce phase shifts and group delay differences across frequency bands.
2. **Impulse Alignment:** Acourate calculates the inverse impulse response of the room-speaker system, aligning the arrival times of all frequencies so that transient energy arrives at the listening chair in coherent phase. The time-domain corrections are stable across all three seats on our couch, so they benefit more than the main listening position.
3. **Harmonic Integrity:** When the fundamental frequency of an instrument and all of its upper harmonics arrive at your ears at the same time, the brain no longer has to work to reconstruct the sound.

The result is effortless separation: vocalists sit naturally in space, piano strikes have distinct physical attack and decay, and complex orchestral arrangements remain clear rather than collapsing into a wall of sound.

The "Heretical" Vinyl Pipeline

My analog front-end takes an unconventional, digital-hybrid approach that raises eyebrows among vinyl purists until they sit down and listen.

- **Turntable:** Rega Planar 8.
- **Cartridge:** Rega Apheta 3 Moving Coil.
- **Phono Preamplifier / ADC:** Parks Audio Waxwing.
- **Digital Bridging:** Raspberry Pi running rooPlay (Roon extension).



The output of the Rega Apheta 3 feeds the Parks Audio Waxwing phono stage. The Waxwing handles RIAA equalization and cartridge loading in the digital domain, digitizing the analog signal into a 24-bit/96 kHz PCM stream.

The Waxwing's Toslink optical output connects directly to a Raspberry Pi running **rooPlay**, a third-party Roon extension. The rooPlay software encapsulates the incoming 24/96 audio as a local FLAC stream and presents it to Roon as an internet radio broadcast.

When I select that "radio station" in Roon, the turntable audio is routed through the exact same 66k-tap Acourate FIR filters, through the Diretta transport, and out to the Gustard DAC.

This architecture introduces two distinct advantages:

- **The 8-Second Buffer:** The network stream buffering adds roughly eight seconds of latency. That delay gives me just enough time to drop the tonearm into the groove, dust the record, walk back to the listening couch, and settle in before the music begins.
- **Acoustic Coherence on Vinyl:** Because the vinyl playback passes through Acourate and Diretta, LP playback benefits from the same time-alignment, phase correction, and low-jitter transport as high-res digital files. It retains the analog warmth, continuous tone, and flow of the Apheta 3 cartridge while gaining surgical soundstaging and bass control.

Home Theater Integration (6.2.6 Surround System)

When switching from critical listening to movies, the loft converts into a 6.2.6 Dolby Atmos/DTS:X theater. Integrating multi-channel processing without degrading two-channel transparency requires careful routing:

- **Processor:** Marantz AV 10 reference pre-pro.
- **Front L/R Integration:** The Marantz AV 10 front left/right balanced pre-outs feed the second pair of XLR inputs on the Topping Pre90. Selecting this input preset sets the Pre90 to unity gain (0.0 dB attenuation), acting as a pure analog pass-through directly to the Focus XD towers.
- **Center Channel:** Legacy Audio Marquis XD center speaker, custom-modified by Legacy Audio with 500 watts of internal power to match the Focus XD front stage.
- **Subwoofers:** Dual Legacy Audio Foundation subwoofers (1,000W each), dedicated to multi-channel LFE and low-frequency reinforcement.
- **Surrounds:** Three Legacy Audio Pixel on-wall surround speakers (left side, right side, and a single rear surround centered on the back wall between the doorway and the opening).
- **Height Channels:** Six Origin Acoustics Director Series D109 10-inch 3-way in-ceiling speakers.
- **Multi-Channel Amplification:** Dual Emotiva XPA multi-channel power amplifiers driving the surrounds and height channels.

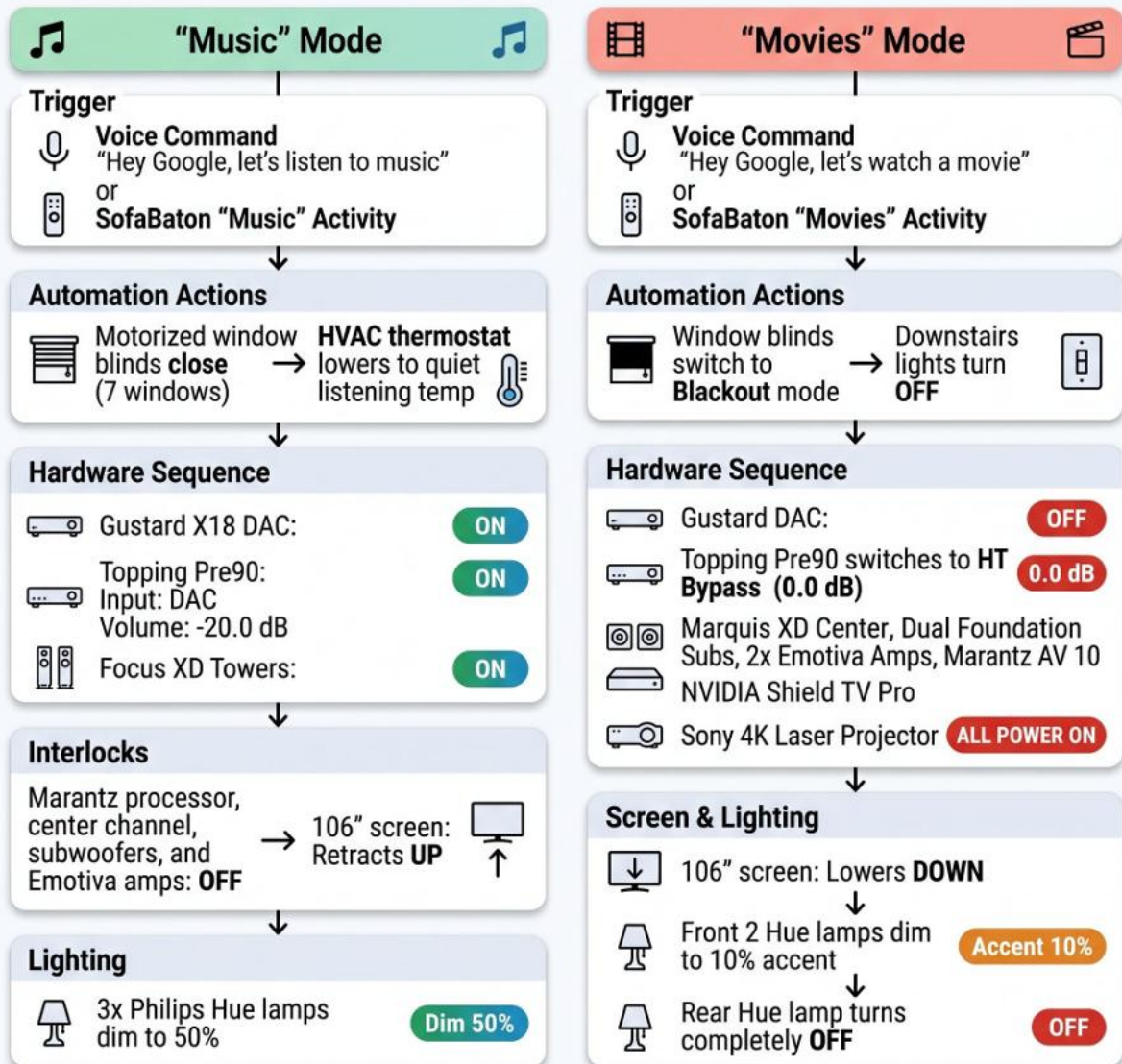
- **Video & Display:** Sony VPL-XW5000ES 4K laser projector firing onto a 106-inch motorized, tab-tensioned drop-down screen.

Large flat-panel televisions mounted between stereo speakers act as acoustic mirrors, reflecting high-frequency energy back into the room and smearing the stereo image. Using a motorized drop-down projection screen allows the front wall between the Focus XD towers to remain acoustically non-reflective during two-channel listening sessions.

System Automation & Lighting: SofaBaton & Google Home

Managing a high-channel-count dual-purpose room with separate analog, digital, and multi-channel hardware paths can easily become an operational nightmare of multiple remotes. To make the entire room intuitive and automated, I unified control using a **SofaBaton X1S** remote integrated with **Google Home** voice automation and **Philips Hue** lighting.

ROOM AUTOMATION & STATE LOGIC DIAGRAM: COMPARATIVE ANALYSIS



Ambient lighting is handled by three Philips Hue smart bulbs housed in tall floor lamps: one in each of the two front corners behind the Focus XD towers, and a third on the rear wall positioned between the doorway and the centered back-surround speaker.

The room is programmed around two discrete activities:

1. "Music" Mode

- **Hardware State:** Powers on the Gustard X18 DAC, followed by the Topping Pre90 preamp. The Pre90 selects the DAC input and sets attenuation to -20.0 dB. The Focus XD towers are then powered on.
- **Interlock:** If the system was previously running in Movie mode, the projector, Marantz processor, center channel, subwoofers, and Emotiva amplifiers are powered down, and the 106-inch projection screen automatically retracts.
- **Lighting:** All three Philips Hue lamps dim to a warm, relaxed 50%.
- **Google Home Automation:** Saying *"Hey Google, let's listen to music"* fires the SofaBaton routine, lowers the motorized blinds across all seven windows in the loft, and adjusts the HVAC thermostat to bring the room down to a comfortable listening temperature before the session starts, avoiding mid-album AC cycles.

2. "Movies" Mode

- **Hardware State:** Powers off the Gustard DAC (if active). The Topping Pre90 switches to the Home Theater Bypass preset (0.0 dB unity gain). The Marquis XD center channel, dual Foundation subwoofers, two Emotiva multi-channel amplifiers, Marantz AV 10 processor, NVIDIA Shield TV Pro, and Sony 4K laser projector all power on in sequence. The motorized 106-inch screen lowers into place.
- **Lighting:** The front two corner Hue lamps dim down to 10% for subtle accent lighting that preserves visual contrast on the projection screen, while the rear Hue lamp shuts off completely.
- **Google Home Automation:** Saying *"Hey Google, let's watch a movie"* triggers the entire cinema hardware sequence, switches the seven window blinds into blackout mode, and turns off all downstairs lighting to prevent stray light from traveling up the open staircase.

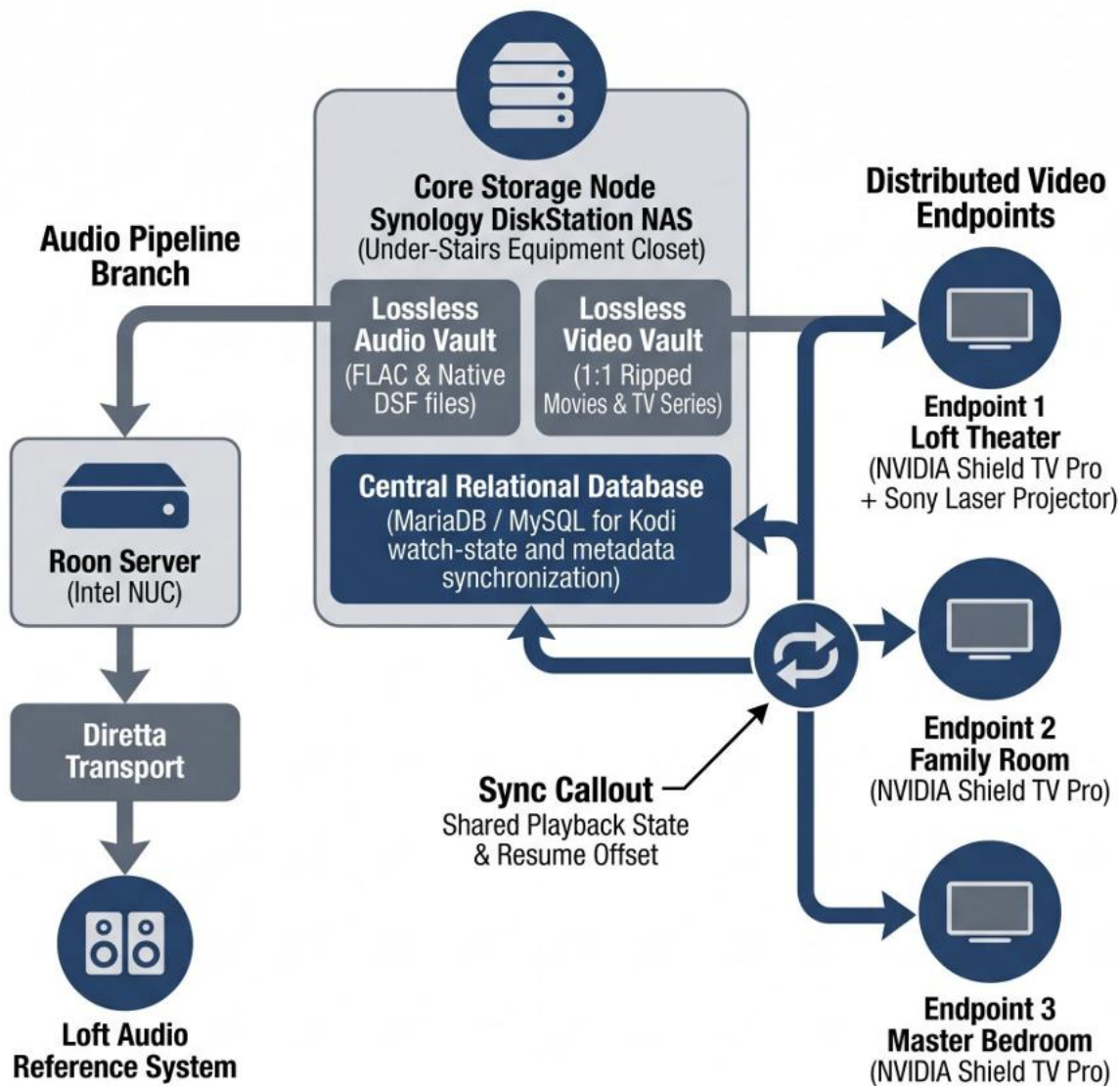
Centralized Media Architecture: The Under-Stairs Engine

Behind the scenes, all media storage and backend compute infrastructure live out of sight in a temperature-controlled equipment closet beneath the stairs:

- **Synology DiskStation NAS:** Houses our central lossless music library, high-resolution DSD files, and ripped movie/TV collections.
- **Centralized Relational Database:** The Synology NAS hosts a shared MySQL/MariaDB database for our **Kodi** media ecosystem.

- **Video Front-Ends:** Three NVIDIA Shield TV Pro boxes (located in the loft theater, family room, and bedroom) run native Kodi clients connected to this shared database.

This infrastructure keeps all playback states synchronized. We can start a movie in the family room downstairs, pause it, move upstairs to the loft theater when it gets dark, and resume playback from the exact same frame.



For physical media, I do not use a standalone disc player during normal playback. Instead, all newly purchased CDs and SACDs are ripped directly to the NAS. I use an older Sony Blu-ray player running specialized extraction software to rip the native DSD layer from SACDs into .dsf files. Roon serves these DSD files bit-perfect directly to the Gustard X18 DAC over Diretta, preserving high-resolution DSD audio without requiring intermediate conversion to PCM.

System Summary

Function / Category	Components & Implementation
Front L/R Loudspeakers	Legacy Audio Focus XD (4-way, dual 12" powered bass, AMT ribbon array)
Preamplifier & Routing	Topping Pre90 + Ext90 (relay-based balanced stepped attenuator with HT bypass)
Digital Source & DAC	Gustard X18 DAC fed by DIY dual-Raspberry Pi 5 Diretta transport bridge
DSP & Room Correction	Roon Server (Intel NUC), AudioVero Acourate v4 66k-tap FIR phase/time filters
Analog Front-End	Rega Planar 8, Apheta 3 MC, Parks Audio Waxwing ADC (24/96) → rooPlay
Surround Processing	Marantz AV 10 Reference Pre/Pro (routed via Pre90 0.0 dB unity gain)
Surround Speakers	Legacy Marquis XD center (500W powered), 3x Legacy Pixel, 6x Origin D109 in-ceiling

Subwoofers	Dual Legacy Audio Foundation subwoofers (1,000W each)
Surround Amplification	2x Emotiva XPA multi-channel power amplifiers
Video System	Sony VPL-XW5000ES 4K laser projector, 106" motorized tab-tensioned screen
Automation & Lighting	SofaBaton X1S, Google Home, 3x Philips Hue tall floor lamps, motorized shades
Central Infrastructure	Synology NAS (lossless FLAC/DSF media & MariaDB), 3x NVIDIA Shield TV Pros

What I've Learned

Building this system over several decades reinforced an essential engineering truth: real musical engagement comes from careful system architecture, time-domain alignment, and clean transport design—not from accumulating expensive boutique boxes.

By allowing the physical characteristics of the room to handle low-frequency dissipation, applying 66k-tap FIR filters to align driver phase, and using Diretta to eliminate transport processing noise, the equipment disappears. You are left with an open, dynamic presentation where voices and instruments sound like real acoustic events occurring in physical space.

If any fellow Audiophile Foundation (or AAVC) members are curious about building a DIY Diretta bridge, running Acourate filter sweeps, or setting up low-latency digital vinyl routing, feel free to reach out. I am always happy to talk audio.

Dealers Corner

As always, we want to recognize and thank the local retailers who graciously support our club.

Equipment Dealers:

Acoustic Designs Group <https://www.adgroupaz.com/>

Arizona HiFi <http://tubeaudio.com/>

Audio Video Excellence <https://www.audiovideoexcellence.com/index.html>

Cinematic Home AV <https://www.cinematichomeav.com/>

Dedicated Audio <https://www.dedicatedaudio.com/>

LMC Entertainment <https://www.lmche.com/>

USA Tube Audio <https://www.usatubeaudio.com/>

Mythic Home Theater <https://mythicsls.com/>

New addition to list August 2026: Soundcave Audio Exchange (used)
<https://soundcaveaudioexchange.com/>

Vinyl/CDs:

In-Groove Records <https://www.theingroove.com/>
They also sell audio equipment per the store's website.

Zia Records <https://www.ziarecords.com/> Zia has several stores throughout The Valley.

Stinkweeds <https://www.stinkweeds.com/>

Vinyl Record Dude <https://vinylrecorddude.com/>

Repair Work:

Tim Hoffman is an AAVC member and the owner of Arizona Audio Video Electronics
(<http://www.azvideoelectronics.com>).

Audio Doctor - active website
<http://www.audiodoctor.biz/>
602-741-0730

Turntable Set-up and record cleaning:
Richard Jensen confirmed still in business
[602 717 2399](mailto:602.717.2399) | worksbau@gmail.com

Scott Cohen- geared more towards vintage gear. Email VintageAudioReview@proton.me with device info and problem(s), and I will let you know if I think I can help. Located in Tucson. Your device might even be featured in a YouTube video.

Jeff's Professional Audio Repair [602-274-0794](tel:602-274-0794) - Also, Car Stereo work
jparepair@yahoo.com

Re-foaming Speaker Surround Service:
Michael Mitchell 480-749-7003
mmiller43228@yahoo.com

For Sale

We are trying something new this month: a “for sale” section. New club member Paul Smartgedes is starting us off. For sale items will run for two issues of the newsletter. This is month two for Paul’s gear.

Please contact the party offering these items for sale to acquire additional information or photographs for these products.

AAVC Club Member’s Private Sale Opportunities***

**** The AAVC offers this space solely for club members to make other club members aware of products which are available for private purchase. The AAVC does not endorse, recommend, or promote any of these products, nor does the AAVC filter or ensure the accuracy of any information offered up in the sales opportunity notice. Any purchase activity taken on these sales opportunities is solely between the seller and the purchaser. The AAVC does not impose any fees nor does it receive any financial benefit from completion of any sales activity.*

Contact Information for these items for sale:

Paul Smartgedes

[4537 E Fernwood Ct](#)

[Cave Creek, AZ 85331](#) (located in Tatum Ranch)

pj2smart@gmail.com

602-715-5476

Product Description	Type	Price	Comments
Wilson Benesch burl wood Act One floor-standing carbon fiber enclosure 46"	Speaker	\$5500.00	One driver has a hum. Seems like it is misaligned, rubbing on the voice coil
Kef LS50 Meta bookshelf speakers \$1600 retail with the matching Kef \$500 stands.	Speaker	\$950 add \$200 for Isoacoustic Gaia feet.	\$1600 retail with the matching Kef \$500 stands. They are blue and red, like Superman or Spider-Man colors. Sounds wonderful.
REL Gibraltar 2 subwoofer 10" .	Speaker	\$1900.00	

REL Habitat 1 sub thin white can be painted has grill dual 6.5" subs and 10" can go against a wall under couch 6" thick	Speaker	\$900.00	Thin white can be painted has grill dual 6.5" subs and 10" can go against a wall under couch 6" thick. \$2300 retail. No wireless adapter; they are \$100 or so
REL sub T zero.	Speaker	\$250.00	Small size black piano some dings
Pair of REL subs t9i \$1300 pair	Speaker	\$1300.00	One is piano black, and the other is white. I sanded and painted it; the satin black finish is ok at best, but it works great. One sub has a small hole in the driver, but it works fine; I can demo it.
Martin Logan Balancedforce 210 subwoofer dual 10"	Speaker	\$1800.00	Can be run in stereo. Originally \$3500 retail
Anthem AVR MRX1140 11.2 theater amp and processor.	Amp	\$2450.00	It's can do up to 15 channels 11 are powered dual subs atmos. Current model not the 8k. \$4000 retail
Paradigm center channel 55c prestige	Speaker	\$500.00	Originally \$1700 retail, 32" wide. Has 4x5.5" and 3.5" tweeters; sounds amazing. Black. Has a ding on it.
Monitor audio piano black and leather Platinum PLC150 center channel speaker	Speaker	\$900.00	Originally \$3500 list
Moon Simaudio HT200 5 channel Titan AMP \$3000.	Amp	\$3000.00	Originally sold for \$7200 new. 200 watts by 5 in 8ohm and 400 w by 5 in 4 ohms. The first 5 watts are class A.
PS audio direct stream DAC with bridge streamer card.	DAC/Streamer	\$1400.00	Black has remote too - original retail \$7500
McIntosh XLS112 subwoofer 12"	Speaker	\$1100.00	
JBL S3900 speaker dual 10" bass drivers and amazing sound horns	Speaker	\$7000.00	Originally \$16,000 retail
Tekton white dual 8" each Enzo 2.7 is the model.	Speaker	\$1200.00	Nice looking sound great 6ohm 98db
Hi fi rose RSA780e CD drive.	CD Drive	\$240.00	Rip to the Rose streamers or play CDs on hi fi rose. Originally \$500 retail.
BAT Balanced Audio technologies VK-32SE tube pre amp.	Pre Amp	\$2600.00	Thing is crystal clear and quiet. \$8500 retail 6 tubes inside. Will pair nice with my audio research VS110 amp. No box no remote
Hiby R6 pro digital audio player for headphones or car DAP portable headphones steel case \$350	DAP-portable	\$350.00	
Nordost blue heaven 1m power cable	Power cable	\$200.00	In box - originally \$450 retail
Nordost blue heaven 1.5m power cable	Power cable	\$250.00	In box - originally \$500 retail
Nordost blue heaven for 1.5m rca interconnects	RCA Interconnects	\$350.00	In box originally \$600
nordost blue heaven 3m speaker cable	Speaker cable	\$600.00	Originally \$1125 retail. \$600

Wireworld Eclipse 8 speaker cables (thick)	Speaker cable	\$900.00	Originally \$2100 retail 2m with extra connectors they are bi wire but you can regular wire by using spade and bananas on one terminal. In carry case. \$900
Anthem Statement D2 processor \$250 7.1 surround sound pre amp with ARC room correction	Pre Amp	\$250.00	
Martin Logan Motion SLM thin on wall speakers with stands 4	Speaker	\$400.00	Pair originally \$625 each new - can be wall mounted too.
SVS prime elevation book shelf \$350	Speaker	\$350.00	Originally, retail is \$600 for the pair.
Definitive technology BPX on wall surrounds 10" W x 17-3/4" H x 6-5/8" D (approximately 25.4 x 45 x 16.5 cm) per speaker.	Speaker	\$175.00	Pair
CDs		\$250.00	350 or so of them with wood crates and plastic carriers rock rap country more
JVC X970R THX certified projector	Projector	\$1000.00	4k eshift4 accepts native 4K 60P (4:4:4) content through Full Speed 18Gbps HDMI/ HDCP 2.2 compatible inputs,
Severtson heavy framed white screen 106" retail	Projector Screen	\$300.00	Originally \$2500