# Dani

# Owner's Manua


## SKAA® Pro wireless audio transmitter

hatched in Canada
built to survive alien invasion

DILLINGER LABS

# Contents

Thank you for choosing Dani by Dillinger Labs – a SKAA / SKAA Pro wireless audio Transmitter designed specifically to stand up to the demands of professional audio applications.

- SKAA / SKAA Pro dual-mode Transmitter with 50 meter range (upgradable to ~80m)
- Dani is the perfect companion to Streetheart (SKAA / SKAA Pro Receiver). One Dani can feed up to four SKAA receivers (Streetheart and any other in any combination)
- Works with all SKAA Receivers and all SKAA Nadja Hubs (in satellite/receive mode) – including all SKAA-equipped speakers (ie. SOUNDBOKS, Wet Sounds, Electrotec, etc.)
- Works with SKAA receivers regardless of brand
- Pro-grade SKAA wireless audio. 100% Bluetooth free. 100% WiFi free.
- Designed specifically to upgrade virtually any piece of source-side pro audio gear to SKAA/ SKAA Pro wireless
- 2 discrete balanced/unbalanced line-level inputs as well as 2 Thrus for daisy-chaining
- Dani features Burr Brown input buffers and Burr Brown ADCs (analog to digital converters)
- Features a global volume knob which lets you easily control the gain of all bonded downstream SKAA receivers as a group
- Accepts pro input signals up to +24dBu, or switch Dani to consumer audio levels and feed it from your phone's headphone jack

***We like to make our products simple to use … and Dani is no exception!***

Still, to fully unleash the considerable capabilities of this shiny new work of art, we vehemently suggest you read this Owner's Manual. Its pages are brimming with juicy morsels of invaluable insights, irreverent commentary, and other assorted nuggets of paradigm-altering revelation. Our team really poured their heart & soul into this one. We hope you love your new Dani !

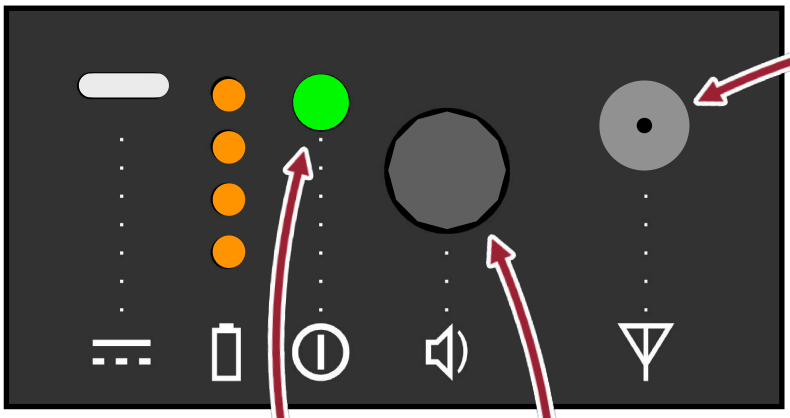
## What is SKAA?

The SKAA® standard for wireless audio guarantees compatibility between all products bearing the SKAA Compatible Badge.

SKAA semiconductor components enable SKAA to be embedded in consumer audio and pro audio products. Not based on Bluetooth or WiFI, SKAA is a global standard built from the ground up specifically for audio.

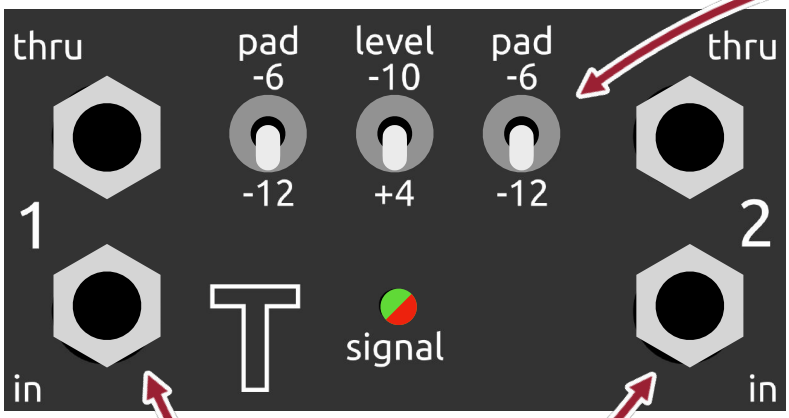
SKAA Transmitters work with iOS & Android mobile devices, Mac & Windows computers, televisions and any product having a line output, an optical S/PDIF output or a headphone jack. Learn more at www.SKAA.com

# Quick Start Guide



1. *Screw in the included SMA antenna here and point it up*

2. *Hold down the POWER button to turn Dani on. Next, crank down the volume knob to avoid going deaf.*




3. *Set these three switches to middle, down, middle*

4. *Connect your audio source device here using 2 TS or 2 TRS cables and play audio from it*

5. *The SIGNAL LED should flash green. A tiny bit of red is ok. Adjust source device's level till you get this. Adjust the LEVEL and PAD switches if necessary.*

6. *Bond SKAA Receiver(s) to your Dani; double click their Bond buttons to do this. More about this on p17.*

7. *Turn it up. You can adjust global volume using Dani's knob. Balance out your speakers (or receivers) by using their local volumes.*

# Ideas & Tips

- Do you have gear you *wish* could send out SKAA audio to your SKAA speakers (such as Soundboks 3, Soundboks 4, Soundboks Go, Wet Sounds Portable or Electrotec Stage One)? Upgrade your source-side gear with Dani to do just that.
- Perfect for upgrading your DJ deck, live sound mixer or recording interface to transmit audio by SKAA wireless
- Ideal for replacing long XLR or TRS cable runs. For this we recommend you use Streetheart Receivers on the receive side.
- Love your powered PA speakers? Great! Convert them to lightning-fast SKAA wireless by adding Streetheart; then feed them wirelessly with your Dani.
- Select -10 dBV using the Level Switch on Dani's input panel and you can feed Dani with consumer-grade audio sources such as your phone or computer
- Need to add more Receivers? Daisy chain another Dani using the handy Thru Jacks. You can keep adding more Danis this way. Simple, expandable, and intuitive.
- Easily create a scalable wireless headphone solution for DJs or a cue mix system for your studio
- Need an extra pair of monitor speakers for the "band room" in your studio? Upgrade a pair of powered monitors with a single Streetheart to fill that remote room. Or get a pair of Cerwin Vega Pro studio monitors which already have SKAA built in. Regardless, you can feed those monitors from your control room with Dani.
- If you want to use Dani with a microphone source, you'll need a preamp between the microphone and Dani to boost the signal from "mic level" to "line level". Most DJ decks and pretty much all mixers have mic preamps built in.
- Dani will work with many acoustic guitars so long as they have an active pickup. Use a TS patch cable to connect the guitar directly to Dani's IN 1. Turn off the pads and try the Level Switch in both -10 and +4 to see which one works better.
- Guitar Pro Tip: Dani's inputs don't have the right impedance for electric guitar or bass, but placing almost any *buffered* guitar pedal in front of Dani will fix that problem. True bypass pedals will work, too, but only when they're ON (engaged). Take the output of the pedal and plug it into Dani's IN 1 jack with a TS patch cable. Try an EQ in front of Dani to get that Fender feeling or an EQ followed by a JHS Charlie Brown to get your Marshall Plexi on.

*We love LEGO® !*
*There are Lego bricks for every occasion, with more being added all the time. And the new bricks work perfectly with the old bricks. SKAA devices are designed to work exactly like this.*

# Enclosure Tour

*Dani accepts 2 discrete audio signals and transmits them wirelessly via SKAA/ SKAA Pro and also outputs them on its Thru jacks*

## INPUT Panel


*This ridiculously-large "T" is a reminder that Dani is a TRANSMITTER of wireless audio*

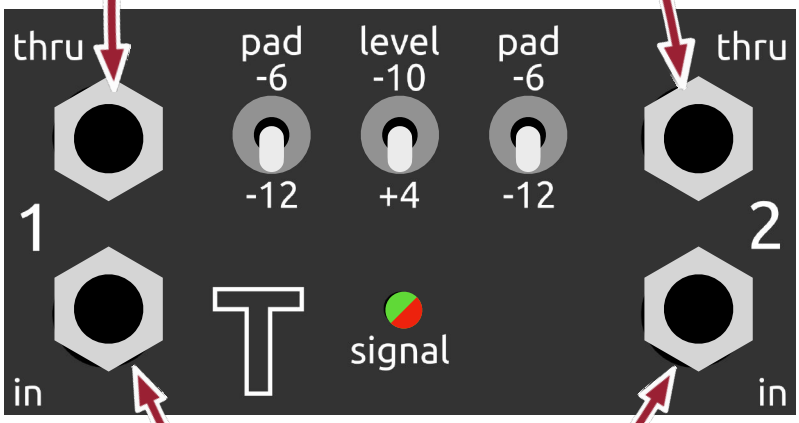
## USER Panel

*Dani will run for 14 hours from a full charge using its internal rechargeable Li-Ion battery*

## Even its feet are AWESOME

# INPUT Panel: Jacks

*The Thrus (the 2 upper jacks) are outputs which don't output anything until you connect something to the inputs. Each Thru is hard wired directly to its respective In and will output exactly what's entering Dani, completely unaltered and unpadded*




*Dani has 2 balanced/unbalanced Inputs (the 2 lower jacks) which are transmitted wirelessly on SKAA channels 1 and 2*

- These are balanced/unbalanced ¼" TRS line level inputs with input impedance greater than 20 k ohms
- What's on the other side of those jacks? Burr Brown differential input buffers, followed by Burr Brown analog to digital converters.
- Inputs 1 & 2 are most commonly used for Left and Right audio respectively, but you can use them for anything you want
- For example, you can send your FOH (front of house) mix on channel 1 and your headphone cue mix on channel 2
- Have XLR outputs on your mixer or DJ controller? Perfect; use two XLR-F to ¼" TRS cables to feed Dani with balanced signal. This is ***the*** best way to connect because the signal is strongest and the noise is lowest.
- Got RCA outputs on your mixer? No problem, Dani's inputs will happily accept unbalanced signals, too
- Of course ¼" sources (both balanced TRS and unbalanced TS) work great with Dani, as well
- Dani's inputs can handle up to +24 dBu of signal each –just engage the pads as needed
- Since you don't have to back down your source outputs to feed Dani, when you've got amplifiers wired up to Dani's Thrus, those amps will be able to achieve their full rated wattage

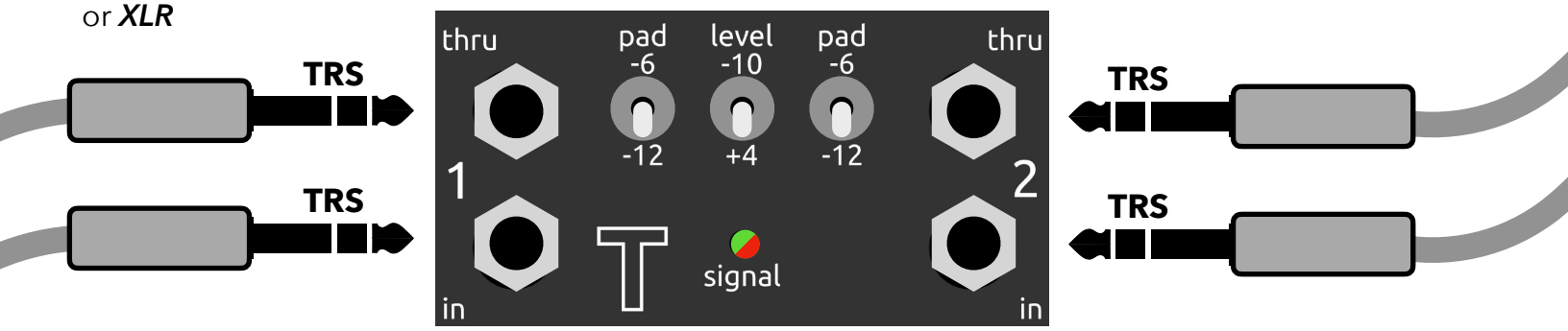
*Pro Tip for sending MONO audio:*
*Plug your mono audio source into IN 1.*
*IN 2 is normalled to IN 1. That means, if you plug into IN 1 only (with no plug in IN 2), the audio will magically show up on IN 2 as well. The audio will also appear on both Thru 1 and Thru 2.*

# INPUT Panel: Cables

## Cables for BALANCED audio sources

- If your audio source device has balanced outputs, use TRS (balanced ¼" phone) cables to connect it to Dani for best results
- TRS means "Tip, Ring, Sleeve"; so in other words, 3 conductors. Below you can see that there are 3 discrete sections of conducting metal on TRS plugs.
- The other end of a TRS cable will typically be either ***TRS*** or ***XLR***

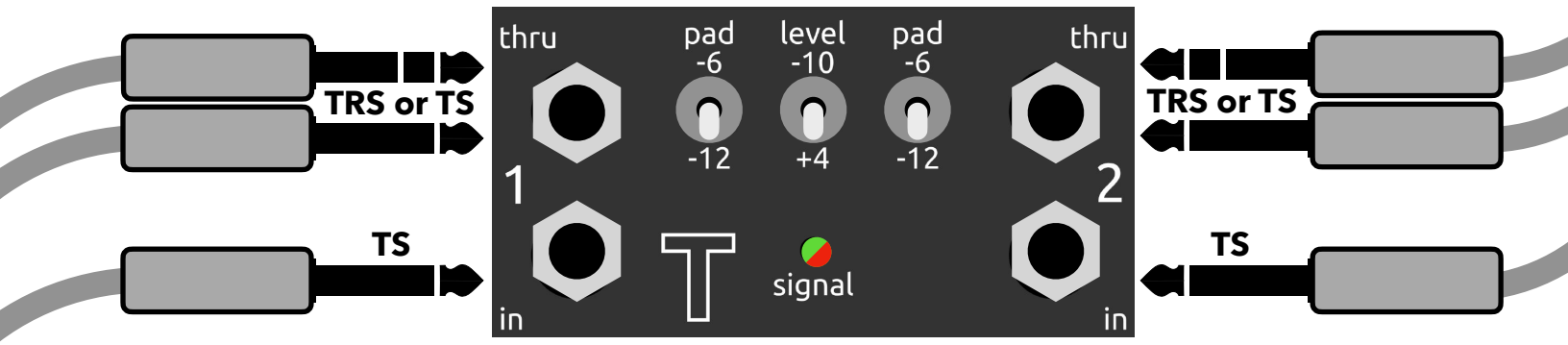
*If you are feeding Dani's inputs with TRS, avoid using TS cables in the Thrus as this will unbalance Dani's inputs and your signal level will be cut in half (made quieter)*




*A common use case when you'll need to use TS connections is when your audio source device has RCA outputs.*

## Cables for UNBALANCED audio sources

- If your audio source device has unbalanced outputs, use TS (unbalanced ¼" phone) cables in Dani's Ins and either TS or TRS cables in Dani's Thrus
- TS means "Tip, Sleeve"; so in other words, 2 conductors. Below you can see that there are 2 discrete sections of conducting metal on TS plugs.
- The other end of a TS cable will typically be either ***TS*** or ***RCA***

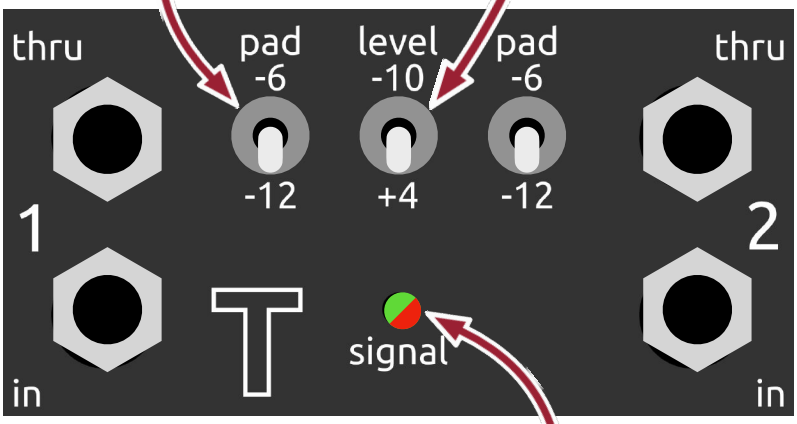



*Pro Tip: If your source device is balanced but you're short on balanced cables, you may find yourself feeding Dani with a TS cable to IN 1 and a TRS cable to IN 2 or vice versa. You'll notice that whichever channel has the TRS connection is louder than the other channel. That's because it has literally twice the signal pouring into it. You can fix the situation by padding the TRS channel by 6 dB (or, more accurately, by 6 dB more than the TS channel is padded) – this will lower the TRS signal level to match the TS one.*

# INPUT Panel: Switches & LEDs

*Each channel has a dedicated PAD switch. Pads are off in the center position.*

*Set the LEVEL switch to +4 dBu when feeding Dani from pro gear and -10 dBV when feeding Dani from consumer products such as phones and computers*




*SIGNAL LED*
*Green = audio*
*Red = peak*

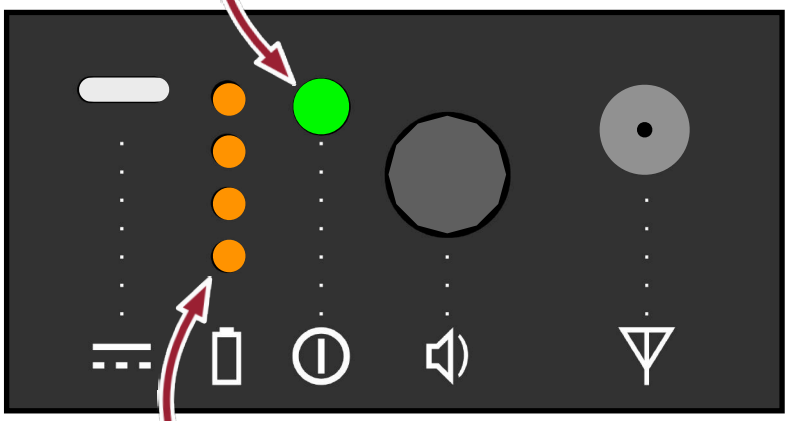
*The SIGNAL LED flashes Red when the signal gets within 3 dB of clipping. If the SIGNAL LED is flashing Red a lot, engage the pads until the SIGNAL LED only flashes Red infrequently. Green flashing most of the time is what you want to see.*

*Pro Tip: set all 3 switches to the down position and turn your mixer up. Dani can handle up to +24 dBu signal, so bring it!*

- Dani can handle a wide range of line level signals, from wimpy to paint-peeling
- Start with the 2 PAD switches in the middle position (all pads OFF)
- Next, set the LEVEL Switch – the one in the center of Dani's front panel. Set it to -10 dBV for consumer source devices (for example phones, computers, iPads, etc.); or set it to +4 dBu for pro source devices (mixing desks, recording interfaces, DJ decks, keyboards, synths, electronic drums, etc.)
- Connect your source device to inputs 1&2 and play a loud song – turn up the volume on your audio source device nice and high – somewhere in the range of 80 - 100% volume level will usually deliver the best results
- Now have a look at the SIGNAL LED – it will flash Green along with the music when there is signal flowing into Dani and Red when the signal is peaking (when signal is within 3 dB of clipping)
- If the SIGNAL LED flashes Green all the time or if it flashes Red only rarely, you're good to go
- If you see the SIGNAL LED flashing Red quite a lot, try setting the 2 PAD switches to -6 dB. If the Red flashing goes away or happens very infrequently, you're good to go
- If you have a super hot source, you can try backing off the output level of the source device, or just set the pads at -12 dB to calm down the SIGNAL LED
- Disable/Enable the green flashing of the SIGNAL LED with a single click on the volume knob. If you disable Green, the SIGNAL LED will then display red only (peaks only). Green is always enabled when you initially power ON your Dani. Originally, this feature was an unpublished easter egg, but what the heck, the cat's out of the bag.

# USER Panel: Power & Modes

*Hold the Power Button for a few seconds to turn Dani*

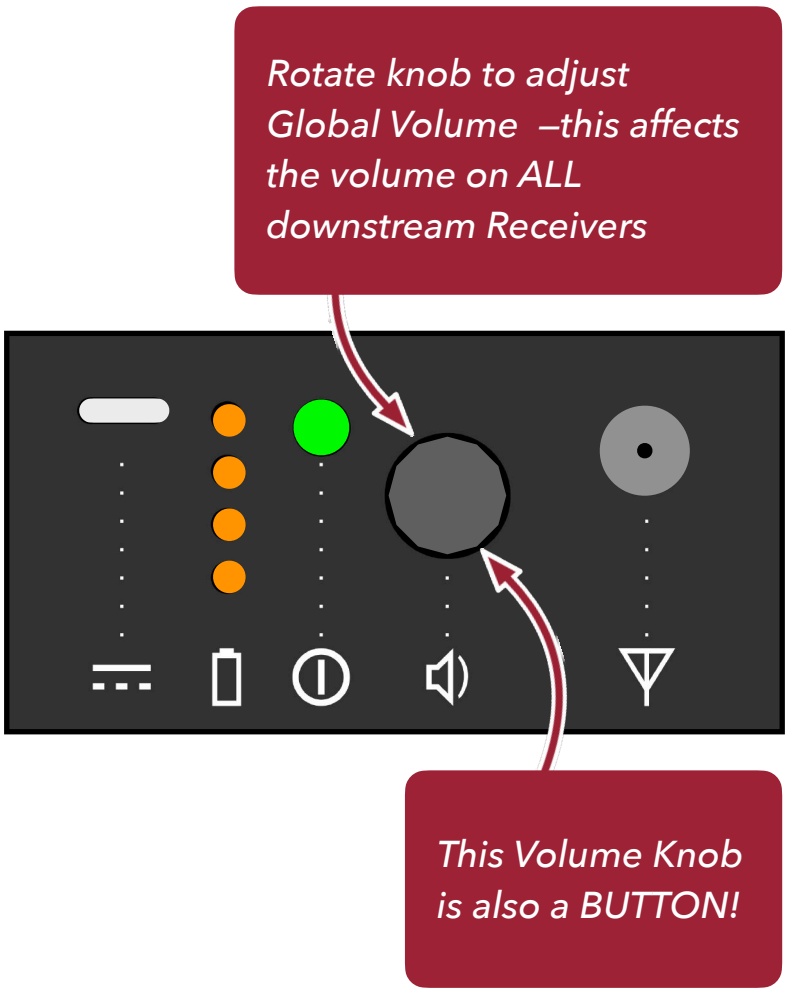


*While Dani is powered on, click the Power Button once to activate the Fuel Gauge. The Fuel Gauge gives you a visual indication of the amount of energy remaining in Dani's internal battery.*

- Power Dani ON/OFF by holding down the Power Button for a few seconds
- A Green glowing Power Button means that Dani is ON and operating as a ***SKAA Transmitter***
- In SKAA mode (Green Power Button), Dani will feed up to 4 SKAA Receivers at 36 ms of latency
- When powered on, you can change Dani's operational mode by triple-clicking the Power Button (click 3 times, fast). This reboots Dani and you can watch the Power Button alternate between Green and Red each time you triple click.
- A Red glowing Power Button means that Dani is ON and operating as a ***SKAA Pro Transmitter***
- In SKAA Pro mode (Red Power Button), Dani will feed up to 2 SKAA Receivers at 19 ms of latency
- VO power saving: When in SKAA mode (Power Button lit Green), Dani will power off its radio transmitter (which will drop Bond to all downstream Receivers) after 2.5 minutes of no audio (silence) on its inputs, and, if it's operating from its battery, Dani will automatically power itself OFF 60 minutes later
- VO power saving Pro: When in SKAA Pro mode (Power Button lit Red), Dani will power off its radio Transmitter (which will drop Bond to all downstream Receivers) after 20 minutes of no audio (silence) on its inputs, and, if it's operating from its battery, Dani will automatically power itself OFF 60 minutes later
- You can disable VO power saving by clicking the Power Button six times, fast. The Power Button will flash several times to let you know that you were successful. This is the same as selecting Grey power mode with a smart SKAA transmitter like Cassandra (the SKAA cmd app is required to do this). Once VO is disabled, Dani will not do any of the things in the above 2 bullets. Note you'll have to power it off manually. If you've disabled VO on Dani, it will be re-enabled the next time Dani is powered ON. This feature was previously an undocumented easter egg.

*All modern SKAA Receivers (those launched IN 2019 and later) are compatible with both SKAA and SKAA Pro operation – they will automatically kick into whichever mode Dani is in when they Bond to Dani. This includes Dillinger Labs own Helix headphones, Aquarius speakers, and DFB Subwoofer … and also a growing list of fantastic speakers from companies like SOUNDBOKS, Electrotec, Wet Sounds, Trulli, and more!*

# USER Panel: Volume



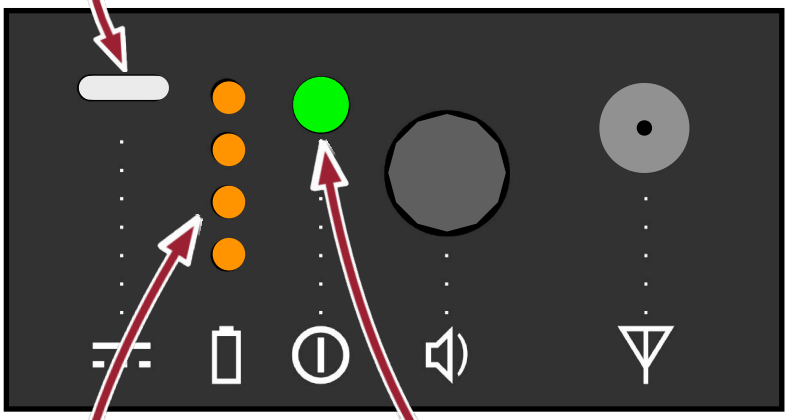

- Dani has a Global Volume control knob which affects all Bonded Receivers.
- If you want to affect individual Receivers' volumes to balance things out, use the Local Volume controls on the Receivers themselves.
- Turn Dani's volume knob clockwise to increase the volume and counter clockwise to decrease it. Dani will go from zero to full up in 30 steps.
- The output level of your Receivers depends on both the Receiver's Local Volume (which is set by the volume buttons or knob on each Receiver) and the Global Volume (Dani's volume knob)
- ***Global and Local Volume example***: say Dani is set to 50% and your Receiver is set to 80% then the actual volume used by your Receiver will be 0.5 x 0.8 = 0.4 or 40%
- ***Level Setting***: Start by setting the Global Volume on Dani to full down. Make sure your Receivers are Bonded to Dani (see SKAA Receiver User's Guide later in this manual if you need help with this). Watch the Bond Indicator on your Receiver(s) as you crank down (turn counter clockwise) the volume on Dani –the Bond Indicators on the Receivers will flash with each step. When flashing stops, you know Dani's volume is at the bottom. Now take it up about 15 steps (you can feel the clicks as you turn the knob) to set 50% Global Volume. Set your Receivers to around 50 - 75% volume using their Local Volume controls. Play some music through Dani and adjust the Local Volume on your Receivers to balance them relative to each other. At least one of your Receivers should be at 100%. Now you can use the Global Volume knob on Dani to control the whole speaker network as one.

*Triple click Dani's Volume Knob to mute all downstream Receivers – you'll see all their Bond Indicators slow flash when you do this. Triple click again to unmute all downstream Receivers.*

*If you want to mute/unmute only a specific Receiver, triple click that receiver's individual Bond Button.*

# USER Panel: Battery & Charging

*Use the included Type A to Type C cable and a USB power adapter to charge your Dani here. This jack is for POWER ONLY – if you plug Dani into your computer, nothing magical will happen except Dani's battery will become fuller!*



*Click the Power Button once to display the Fuel Gauge*

*The Fuel Gauge gives you a visual indication of the amount of energy remaining in Dani's internal battery. Note the Fuel Gauge will also activate automatically when Dani is powered ON.*

*Pro Tip: If you hear hum or buzz while you're charging Dani, make sure you're charging it from a standalone wall charger. Sometimes the mixer or deck you're feeding Dani audio from will have a handy USB charging port, but using it can create a ground loop which can cause hum or buzz in your audio. If you want to charge Dani from it go ahead; just disconnect the charging cable before the gig.*

- Dani will run for 14 hours from a full charge, using its internal battery
- You can continue using Dani while it charges
- Virtually any 5V USB power adapter, such as an ordinary mobile phone charger, will charge your Dani
- Yes, you can use your computer's USB port to charge Dani, but it may take a long time
- Charge time depends on the electric current supply capability of your USB power adapter – Dani is capable of fast charge (2 hours from fully depleted) if your adapter can supply at least 2 A
- While Dani's internal battery is being charged, the top LED in Fuel Gauge LED stack (the one right beside the Type C connector) will glow solid, even if Dani is powered off. When the charging cycle finishes, this LED will turn off to let you know that Dani's battery is fully charged.
- When there is 3% battery energy remaining, the bottom LED in the Fuel Gauge will start to flash slowly (the one right beside the battery icon)
- Dani will automatically power OFF when the battery is fully depleted
- ***Note to Future Self***: You can replace Dani's 18650 battery cell, say 5-8 years down the road when the battery is showing its age. Do so only if you are "handy." Remove the two T-20 screws on the underside of Dani and gently slide the guts out of the shell. Clip the retaining zip ties, then replace with new battery and retainer. Eliminate the guesswork –get your qualified replacement 18650 battery at SKAAstore.com. Also, please make sure to properly dispose of that old battery by putting a piece of tape on both ends and dropping it at your local recycling depot.

# USER Panel: Antenna


- Dani is capable of up to 50 meter reliable range with the included +2 dBi screw-on 2.4GHz SMA-type Antenna
- Your actual reliable range will also depend on how well the Antenna is implemented in the receive-side device
- For example, a Streetheart SKAA Pro Receiver is also rated for 50 meter range and therefore, you can count on actually getting 50 meter range in practice when you use Dani and Streetheart together
- If your Receiver is rated for less than 50 meter range, then the lower of the 2 rated ranges will apply
- Normally, you should orient Dani's Antenna vertically (point it straight up)
- If you're using multiple Danis in your setup, try to separate them from each other by at least 1.5 meters. If you need to have them close together and you're getting poor range, we recommend mounting them above each other on a hockey stick with the antennas oriented vertically and immediately above one another.
- If you attach Dani to a vertical surface (such as one of your front-of-house speakers), re-orient the Antenna so it's pointed straight up and make sure the Antenna clears the speaker grill – in other words, make sure the entire length of the Antenna is above the top of the metal grill of the speaker *(see illustration on the next page)*
- Mounting Kits are available to cleanly attach Dani to mic stands, speakers, hockey sticks –virtually anything

*Pro Tip: If needed, you can replace the stock +2 dBi Antenna with a +5 dBi Antenna from SKAAstore.com to extend Dani's range to about 80 meters. Doing this may take your Dani above +20 dBm radiated RF output power which is the legal limit in some countries. Check local laws first and tread carefully.*

- Dani's Antenna can be removed by unscrewing it. Do this to protect Dani from damage during transport. Just like you always unplug the audio cables from Dani, get into the habit of removing the Antenna before you toss Dani into your gig bag.
- The SMA stud, as well as all switches, buttons, indicators and jacks, are protected by the protruding lip of Dani's aluminum enclosure – but for sure you still need to remove the Antenna for transport and not doing so may void your warranty

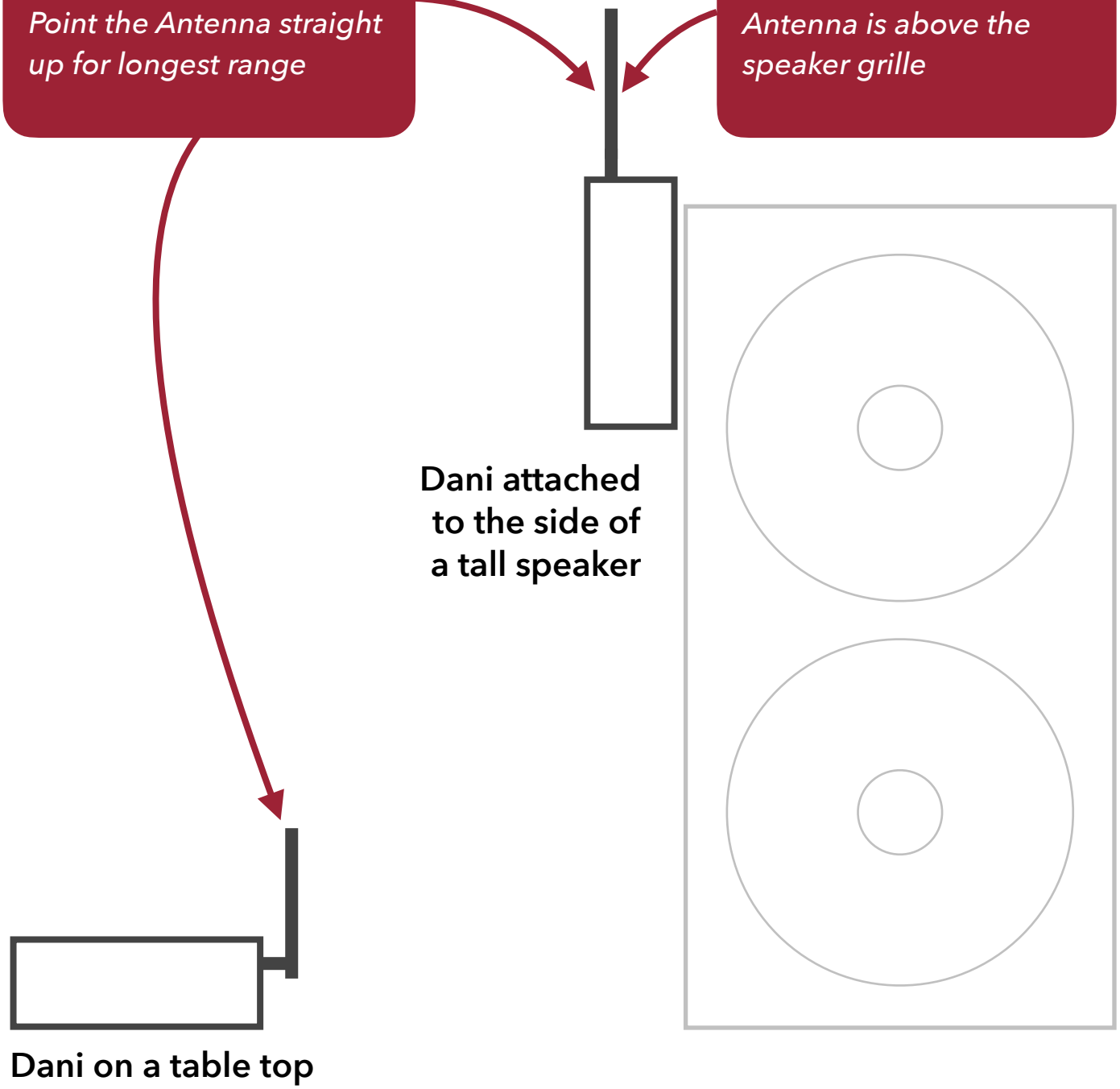
*For best results, get Dani, and therefore its Antenna, elevated as high as possible*

# Antenna Positioning Tips

1. *Place your Dani in an elevated location for maximum range*
2. *Keep the Antenna pointed straight up*

*Point the Antenna straight up for longest range*

*Antenna is above the speaker grille*

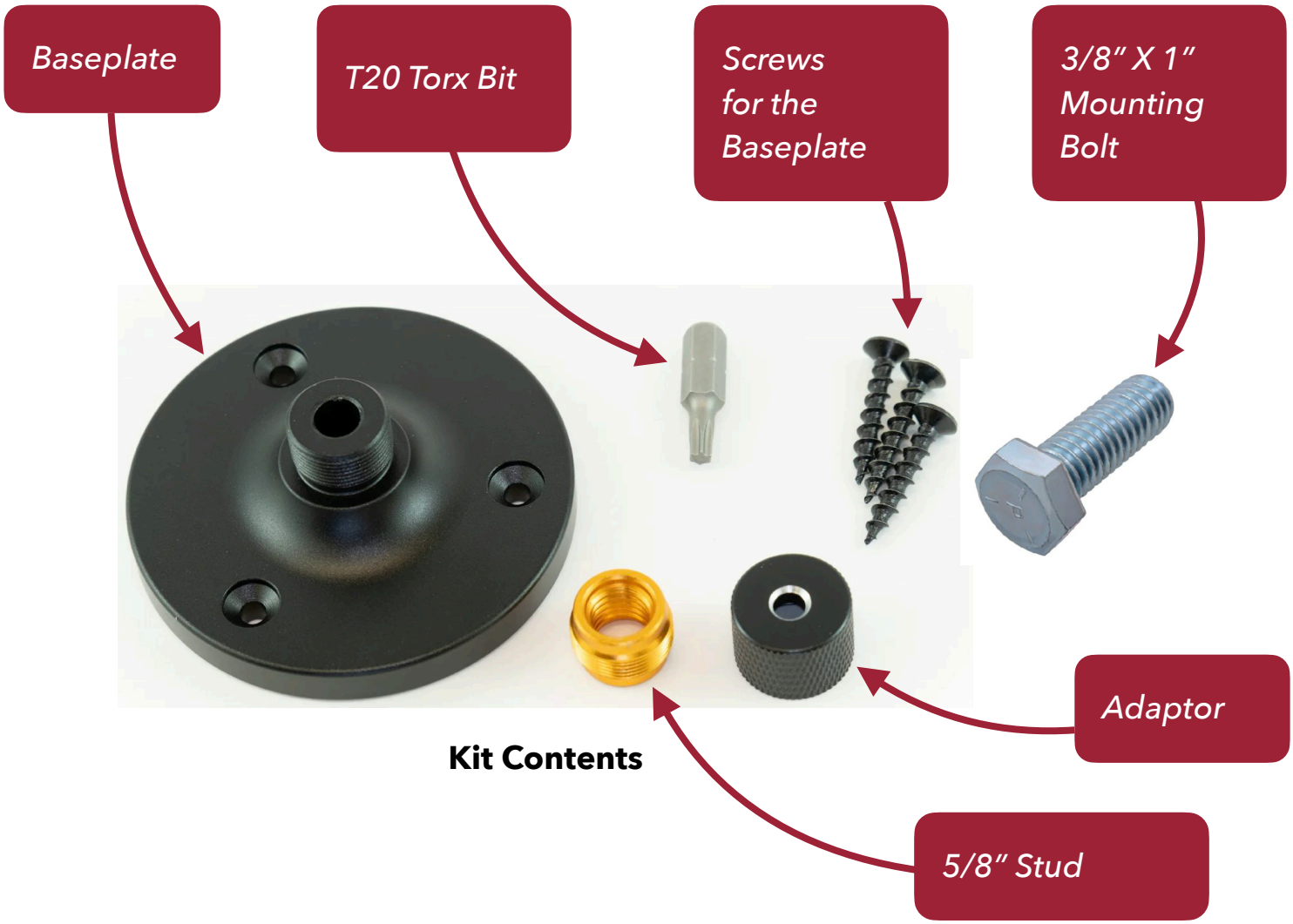


Dani attached to the side of a tall speaker

Dani on a table top

# The Dani / Streetheart Mounting Kit

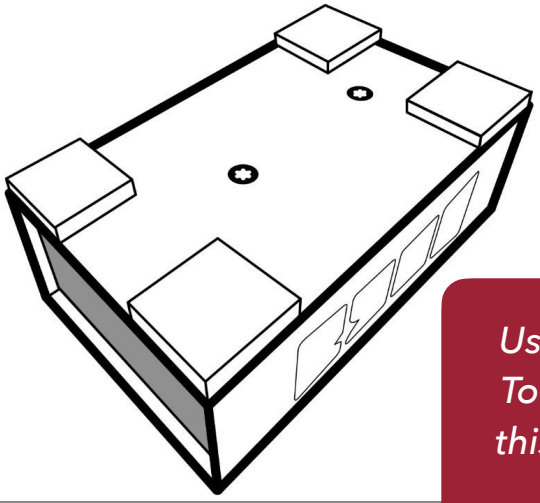
- For a strong and secure way to mount your Dani, say to a mic stand, one of your powered speakers, or to a hockey stick, this Mounting Kit is just the thing
- Start by attaching the adaptor (the round knurled thingamabob) to Dani:
- Remove the screw on the bottom of Dani – the one that's closest to the jacks – with a **T20 Torx** bit (included), place the Adapter over the hole you've exposed and reinstall the screw
- Now you can spin Dani onto a mic stand (you'll need to add the 5/8" stud if you have a European mic stand), or spin Dani onto the included baseplate to permanently mount it to a speaker, wall, hockey stick or pretty much anything you please
- If you spin on Dani and your antenna is pointed in the wrong direction, you can loosen the screw holding on the adapter a tiny bit and then rotate the adaptor until you get the antenna in a good position (pointing straight up!). Then tighten that screw back up.
- The Dani / Streetheart Mounting Kit is available from SKAAstore.com




**Kit Contents**

# Installing The Adaptor

1



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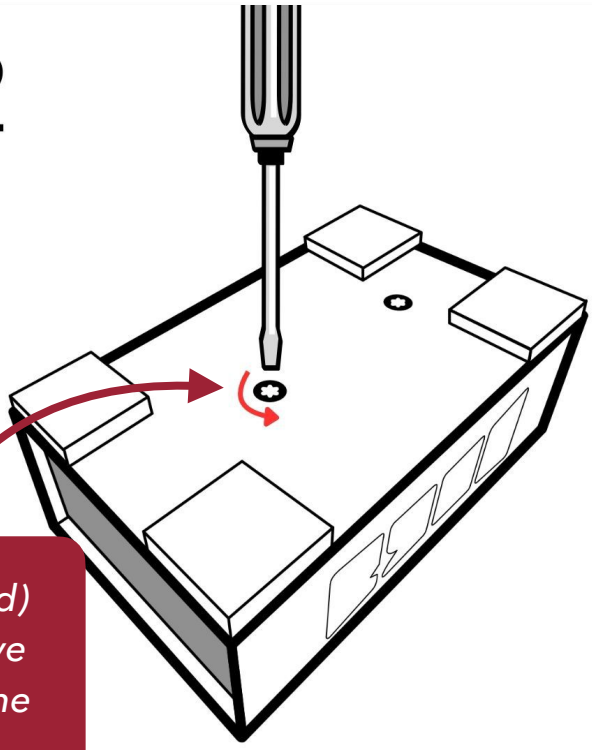
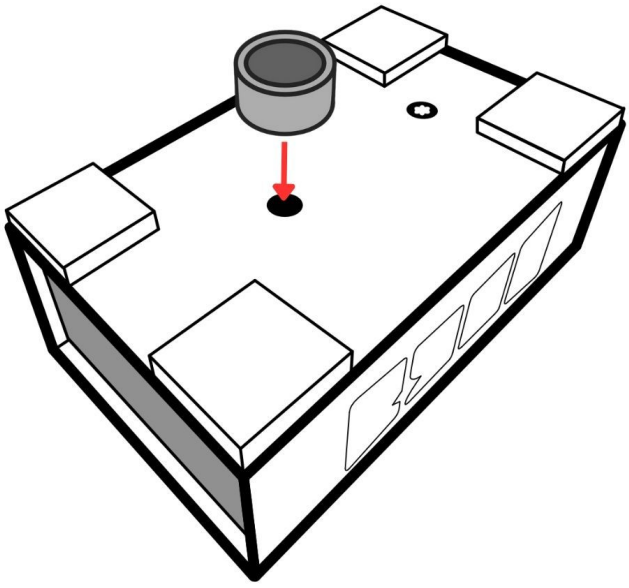


*Use the (included) Torx bit to remove this screw; the one closest to the INPUT jacks*

3



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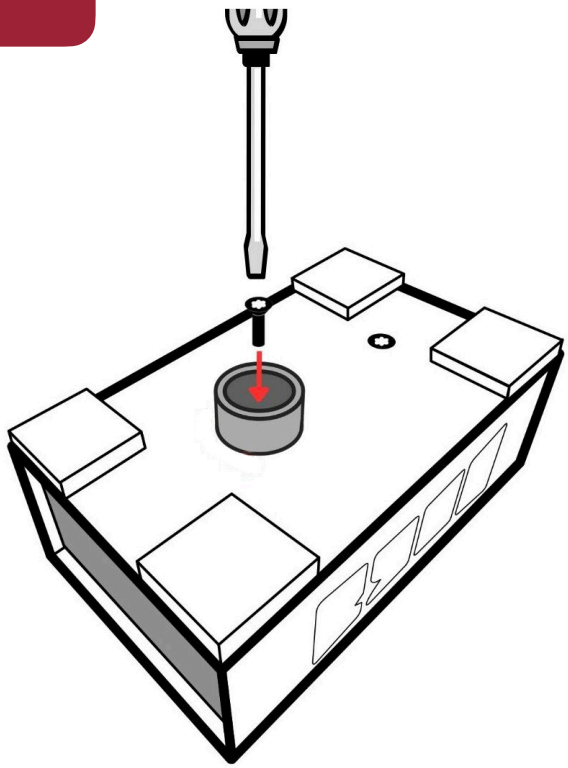


# Wondering how to get Streetheart and other SKAA Receivers, speakers and headphones to Bond to your new Dani Transmitter?


## … discover the power of the Bond Button, found on all SKAA Receivers, in the next 2 pages

# SKAA® RECEIVER USER'S GUIDE

Each SKAA receiver uses a *Green List* to remember your *favourite* audio sources (SKAA transmitters). A Green glowing Indicator on your receiver means you are listening to a favourite, or hunting for one. You can also *explore* to find new transmitters—an Amber Indicator means you are *exploring* for transmitters which are not on your Green List. The ◁▶ Bond Button on your receiver lets you select which audio source (SKAA transmitter) you're listening to.

## Essentials

| ◁▶ *Button* | *Command* | *Indicator* |
|---|---|---|
| Hold<br>a few seconds | Add / Delete Manually add / delete the current transmitter to / from your Green List | ● to ● = Added<br>● (flash) = Deleted |
| - | Auto Add SKAA will automatically add the current Amber transmitter to your Green List if you listen to it for 30 minutes | ● to ● = Added |
| 1 Click | Green Mode Rotate through your list of *favourite* transmitters (Green List) — when a favourite transmitter is found, the search stops and audio plays from that transmitter | ● (dim) = Hunting<br>● (flash) = Next one<br>● (bright) = Bonded |
| 2 Clicks | Amber Mode *Explore* for new, unknown transmitters (ones which are not already on your Green List) | ● (dim) = Hunting<br>● (bright) = Bonded |

## More Commands

| ◁▶ *Button* | *Command* | *Indicator* |
|---|---|---|
| 3 Clicks | Mute do again to Unmute; any Click command will first Unmute and then do its function | ●, ● or ● = Muted (slow flash) |
| 4 Clicks | Red Mode If you have 2 or more transmitters on your Green List, power on just the one you want to hear and it plays automatically. | ● (dim) = Hunting<br>● (bright) = Bonded |
| 6 Clicks | Factory Reset Clear Green List. Start Over! | ● (flash) = Reset Done |
| Hold during power on | Make a Cluster of Receivers:<br>1. Power off all transmitters and receivers<br>2. Power on the Master receiver while holding down its Bond Button—hold the button down until the Indicator begins to flash Red<br>3. With the remaining receivers within 3 meters of the Master receiver, power on the first one, wait for its Indicator to flash Red and then power on the second one; continue until all of them are powered on<br>4. Once all of the Indicators stop flashing (turn solid Red), power off all of the receivers | ● (flash) = Receiver has entered 'Cluster Up' mode<br>● (bright) = The Cluster has been successfully made |

## QUESTIONS AND ANSWERS

| Question | Answer |
|---|---|
| How does the Green List work? | You can store up to 10 SKAA transmitters on your Green List. These are your "favourite" audio sources. Every time you add a transmitter, it is assigned the first open spot on the Green List. When you single click the ◁▶ Bond Button, the receiver hunts through the Green List much like a car radio hunts for radio stations when you press seek. If the Indicator is dim Green and flashes every few seconds, this tells you the receiver is hunting through the Green List. Say you have 5 transmitters on your Green List; your receiver will hunt through the list one by one: 1, 2, 3, 4, 5 and then back to 1 and so on. The dim Green Indicator flashes every time the receiver moves to the next spot on the list. This hunting goes on for up to 1 minute. If your receiver doesn't find any of your favourite transmitters, it stops hunting and just waits for the last bonded favourite. If your receiver does find one of your favourite transmitters, the hunting stops, the Indicator turns bright green, and your receiver starts playing audio from that favourite. A dim Green Indicator that is NOT flashing means the receiver is just sitting on one spot, waiting for a specific favourite transmitter to show up. |
| How do I bond with a specific Green transmitter? | Play audio from your source device and ensure it has a SKAA transmitter connected. Click the ◁▶ Bond Button on your receiver. The receiver hunts through the Green List, flashing the Indicator as it goes. Once your receiver finds one of your favourite transmitters, it bonds to it and plays audio from that transmitter. If that isn't the transmitter you wanted, click the Bond Button once more. Repeat until your receiver bonds with the transmitter you want and you're hearing the correct audio playing. |
| How do I select transmitters if I can't reach my Bond Button? | Say you want to put your receiver on a high shelf where you can't reach the Bond Button easily. First, set up your Green List: add all of the transmitters you'll want to use. Then 4-click the ◁▶ Bond Button to enter Red Mode. Now put the receiver up on the high shelf. Power on just one of your transmitters and power off all others. The receiver automatically bonds to the transmitter that's on. |
| How do I delete a transmitter from my Green List? | Factory Reset (6 Clicks of the Bond Button) clears the Green List and lets you start over from scratch. If however, you'd like to delete just one transmitter from your Green List, first bond your receiver to the transmitter you wish to delete. See the section above: How do I bond with a specific Green transmitter?. Once you are bonded to it, hold down the ◁▶ Bond Button for a few seconds until you see the Indicator flash Red –this Red flash means the transmitter has been deleted. |
| What is a Cluster? | Clusters are an optional convenience for "power users". A Cluster is several SKAA receivers behaving as one product. A left & right speaker pair, for example, or a sound bar and subwoofer. |
| What is the Master receiver? | In any Cluster, there is a single Master receiver, and all of the other receivers in the Cluster follow its behaviour. You can control the entire Cluster by operating the ◁▶ Bond Button of the Master. A receiver must have a physical Bond Button in order to become the Master. |
| How do I "uncluster" several receivers? | Do the Make a Cluster of Receivers procedure once for each receiver, but omit Step 3. Do them one at a time. This gives each of the receivers a functioning ◁▶ Bond Button, and each of them will thereafter operate independently. |
| What are some tips for making Clusters? | Each step in the Make a Cluster of Receivers procedure has a 10-second time limit. When you see the Master's Indicator start to flash Red, you have 10 seconds to power on the next receiver. When that receiver's Indicator starts to flash Red, you have 10 more seconds to power on the next one, and so on. |
| Why does only one of my Bond Buttons work? | When you make a Cluster from several receivers, the first one powered on in the Make a Cluster of Receivers procedure becomes the Master of the Cluster. Only the Master's ◁▶ Bond Button works because a Cluster uses just one Green List –the Master's Green List. The Bond Button of each of the other receivers will work only for the Mute / Unmute function (3-Click of the Bond Button). |
| Can any group of receivers be made into a Cluster? | No. The receivers must be members of the same product family. If they are not, the Make a Cluster of Receivers procedure won't work. This is because only receivers which were designed to work together (as a single product) can be made into a Cluster. |

# Specifications

| Parameter | Conditions | Value |
|---|---|---|
| Inputs | | 2 x ¼″ TRS Balanced or TS Unbalanced |
| Thrus | | 2 x ¼″ TRS wired in parallel to each respective input |
| Input Impedance | Line-GND, Balanced or Unbalanced | > 20 kΩ |
| Qty. Discrete Audio Channels | | 2 |
| Standard Compatibility | SKAA OS 2.1 and later | Any SKAA speakers, SKAA headphones, SKAA Receivers |
| Input Pads (Each Channel) | | 0 dB, -6 dB, -12 dB, user selectable |
| Max Input Level (0 dB FS) | Level -10, No pad, <0.1% THD+N, 997 Hz | 1 V rms |
| Max Input Level (0 dB FS) | Level -10, -12 dB pad, <0.1% THD+N, 997 Hz | 4 V rms |
| Max Input Level (0 dB FS) | Level +4, No pad, <0.1% THD+N, 997 Hz | +12 dBu |
| Max Input Level (0 dB FS) | Level +4, -12 dB pad, <0.1% THD+N, 997 Hz | +24 dBu |
| SIGNAL LED Thresholds | Reference:  0 dB FS at the ADC input | Green: -20 dB, Red: -3 dB, of the greater of channel 1&2 |
| Frequency Response | Reference:  997 Hz @ 0 dB FS | 20 Hz – 20 kHz, +/- 0.3 dB |
| THD+N | -1 dB FS, 20 Hz –20 kHz, 24 kHz BW | <0.03% |
| SNR Unweighted | 997 Hz @ 0 dB FS, 24 kHz BW | >91 dB |
| SNR A-weighted | 997 Hz @ 0 dB FS, 24 kHz BW | >94 dB |
| Crosstalk, Unbalanced | Channel to Channel, 0 dB FS, 20 Hz -20 kHz | >58 dB |
| Crosstalk, Balanced | Channel to Channel, 0 dB FS, 20 Hz -20 kHz | >66 dB |
| Digital Resolution | | 48 kSamples/second, 16 bit, each channel |
| SKAA Transport Latency | I2S digital to I2S digital | 36.72 ms, +/- 1.5 samples |
| SKAA Max Qty. Receivers | Concurrently Bonded | 4 |
| SKAA Pro Transport Latency | I2S Digital to I2S Digital | 19.39 ms, +/- 1.5 samples |
| SKAA Pro Max Qty. Receivers | Concurrently Bonded | 2 |

# CONGRATULATIONS on your new bouncing baby Dani

*Subscribe to the SKAAsound channel on YouTube for HOW-TO vids!*

*Need audio cables, mics or adapters? SKAAstore.com has what you need!*

*Join us on social media … visit SKAA.com and follow the links*

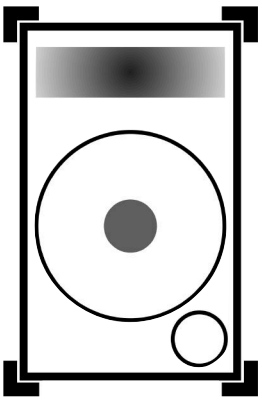

**support: dillingerlabs.com/contact**

# The Sweet Hookups

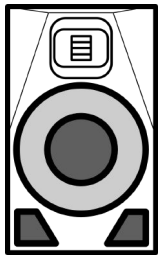
- We're sure you're already thinking of how to integrate your brand new Dani into your existing setup. But in case you're needing some inspiration, we've listed a few of our favourite ways to use Dani here.
- You can use these as a starting point and add/subtract to taste
- If you're scratching your head on how you're going to pull off that DJ gig you got roped into doing because you co-worker's cousin is getting married and "they'd love someone who can really throw down" … you'll find plenty of ideas below

## Legend

SKAA → SKAA Pro → Bluetooth → cable

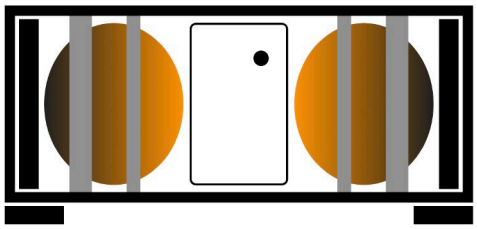


powered wired speaker

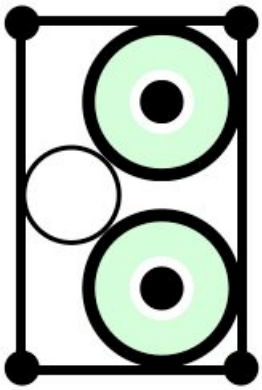


studio monitor speaker

*Certain speakers, like the Death from Below sub are enabled with SKAA receivers built in. In other words, these are SKAA Satellites. Dani can feed these directly.*



Death From Below



SKAA Speaker (Hub or Satellite)

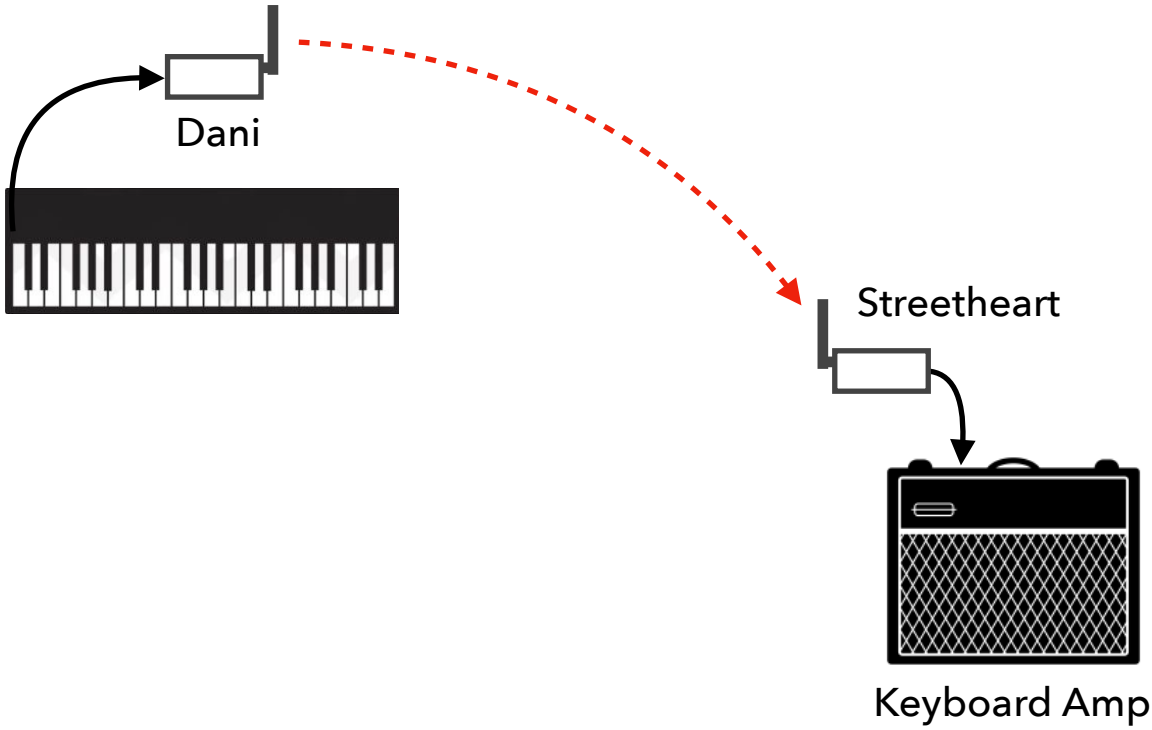
*Certain speakers are enabled with SKAA networking tech. For example: Soundboks 3, 4, Go, Electrotec Stage One, Wet Sounds WS-L, Electrotec Stage One, Trulli Bass 50 and others. These can act as SKAA Transmitters (Hub mode) or SKAA Receivers (Satellite mode)*

# Sweet Hookups:  contents


LIVE
PERFORMANCE
DILLINGER LABS

## 1

## *put your amp EXACTLY where you want it*

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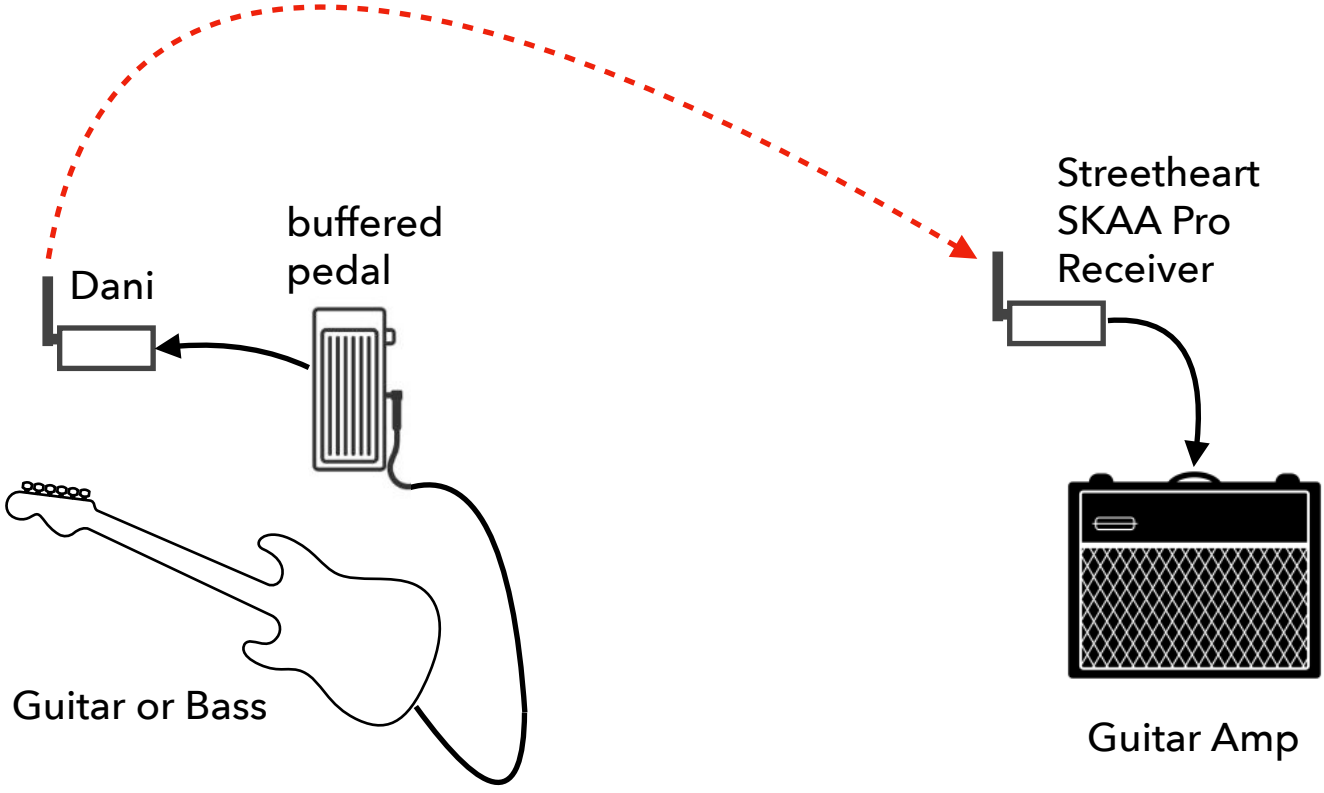
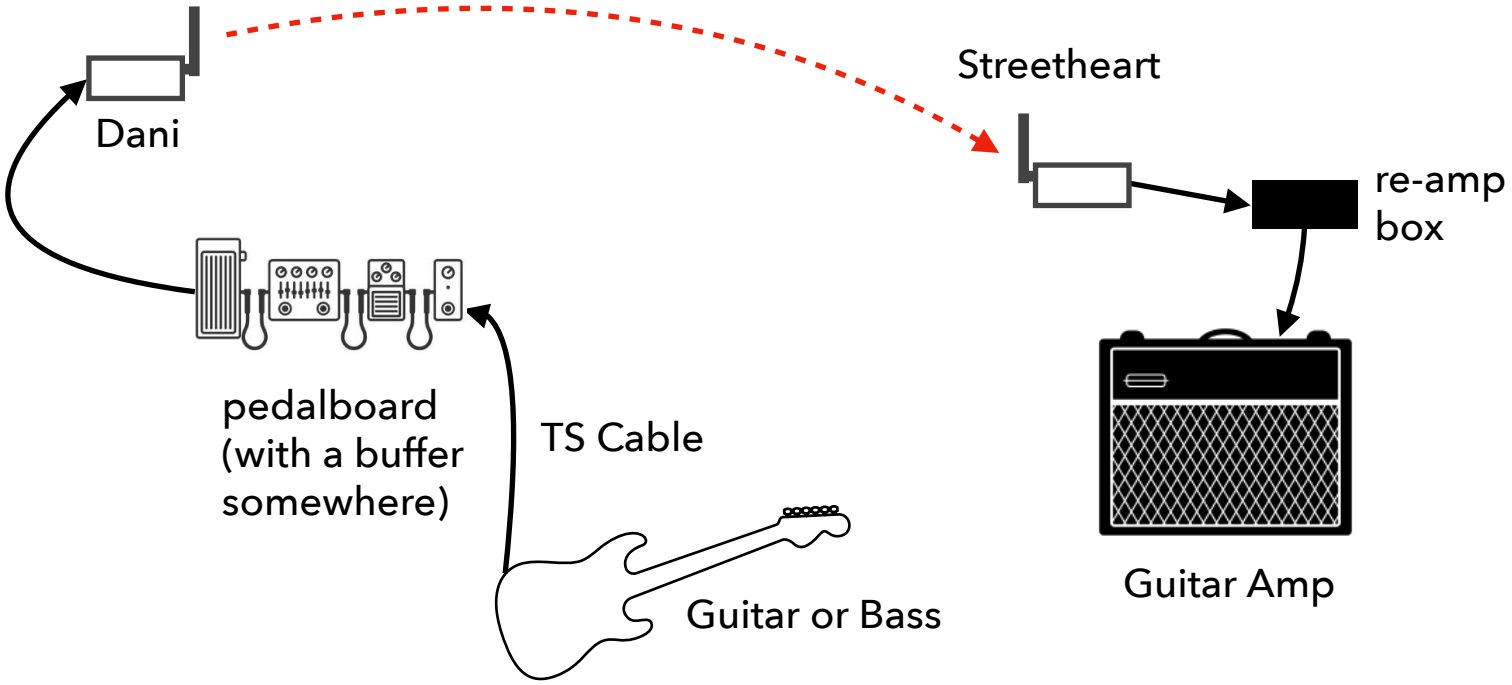
## 2

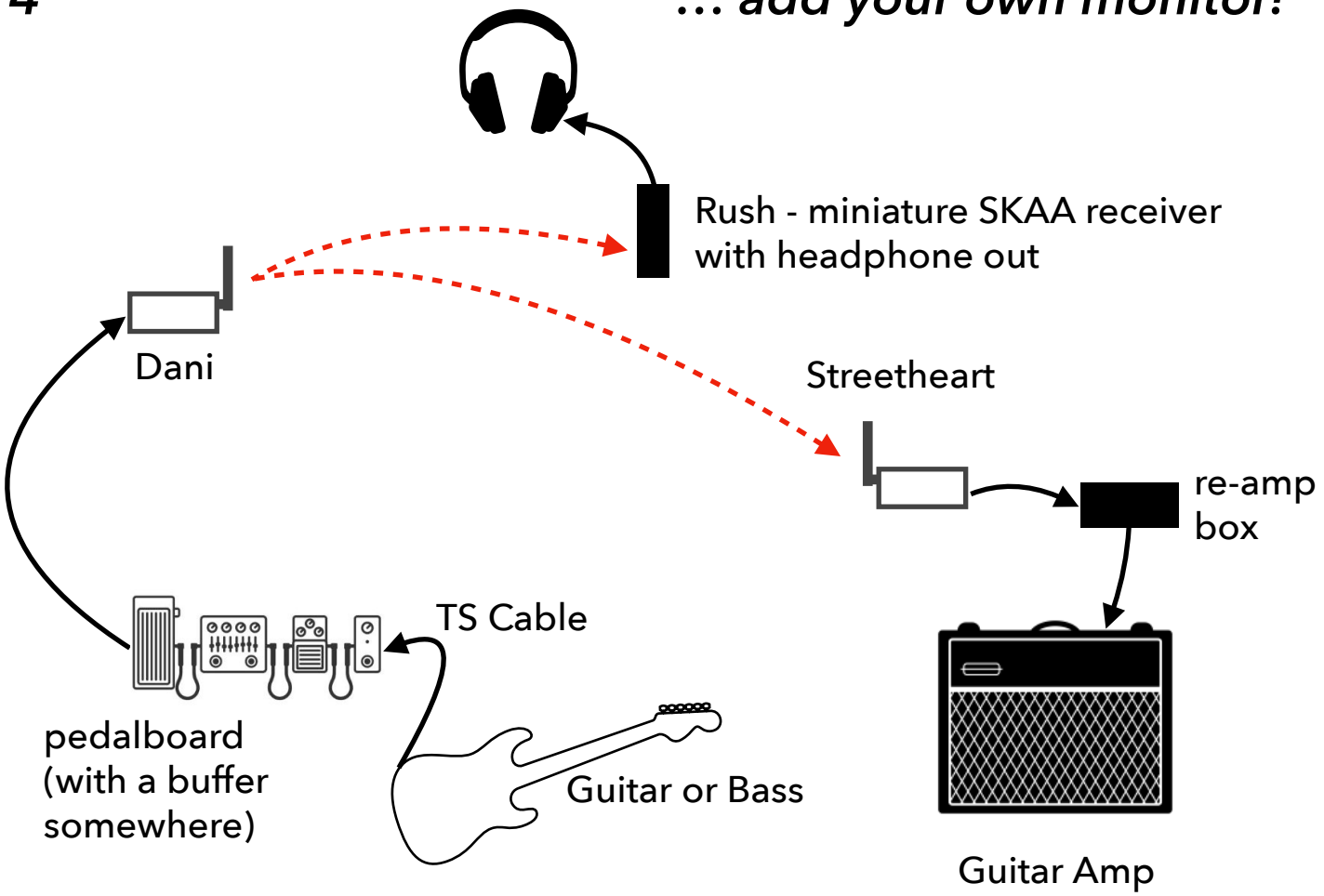
## *minimize clutter on stage*



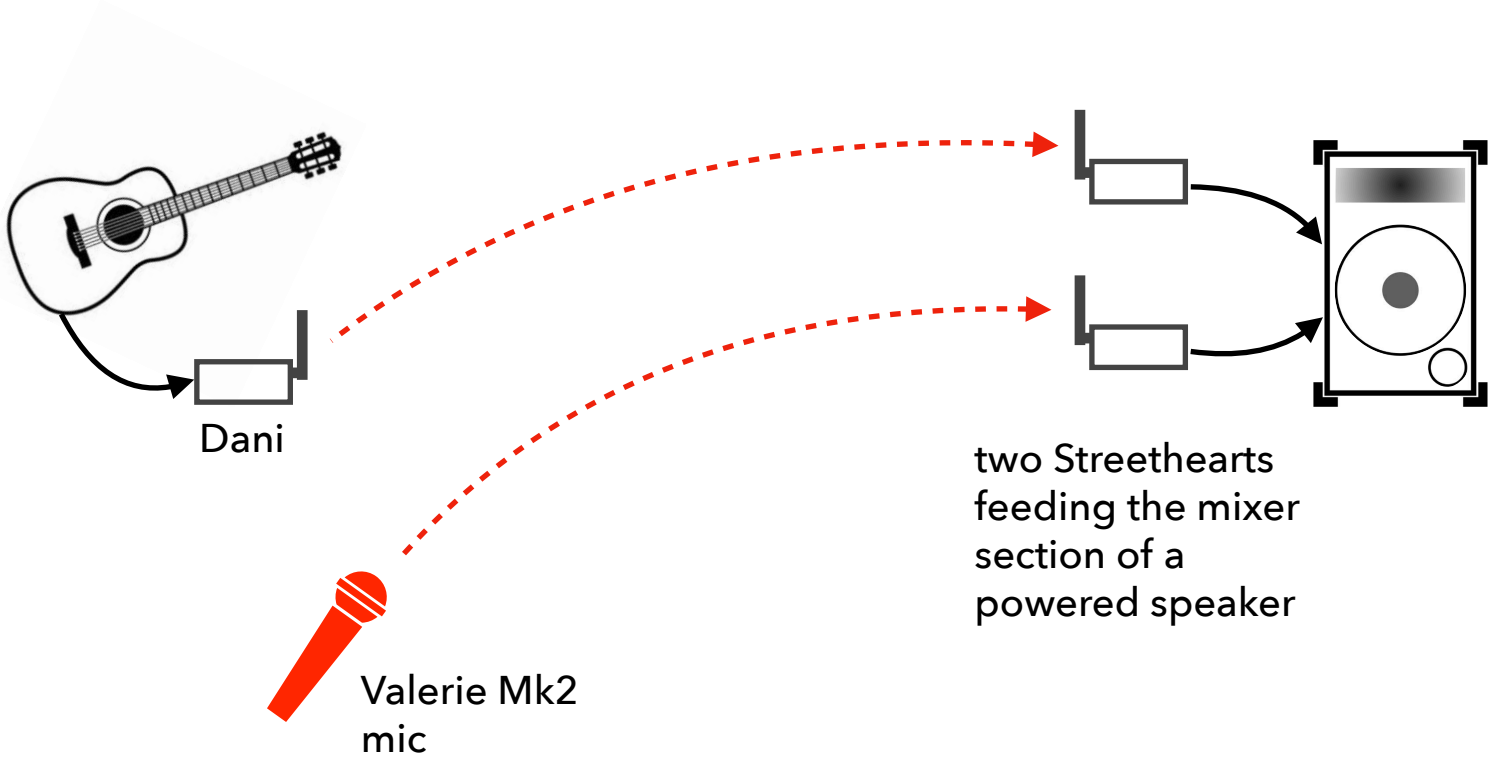
## 3 … or a whole pedalboard!



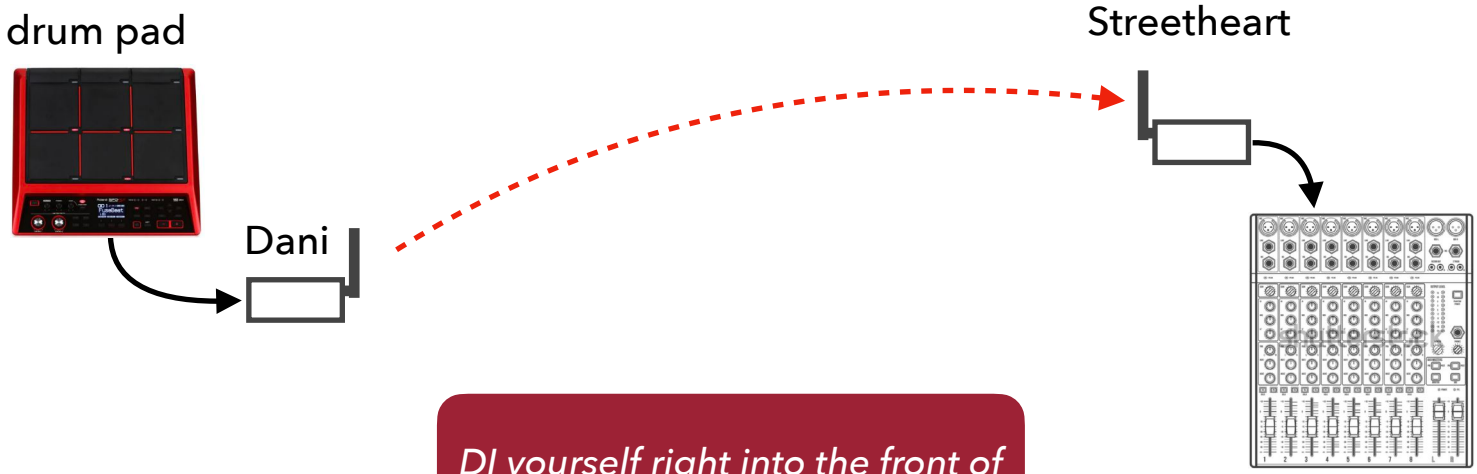

## 4 … add your own monitor!



## 5 *coffee shop special*



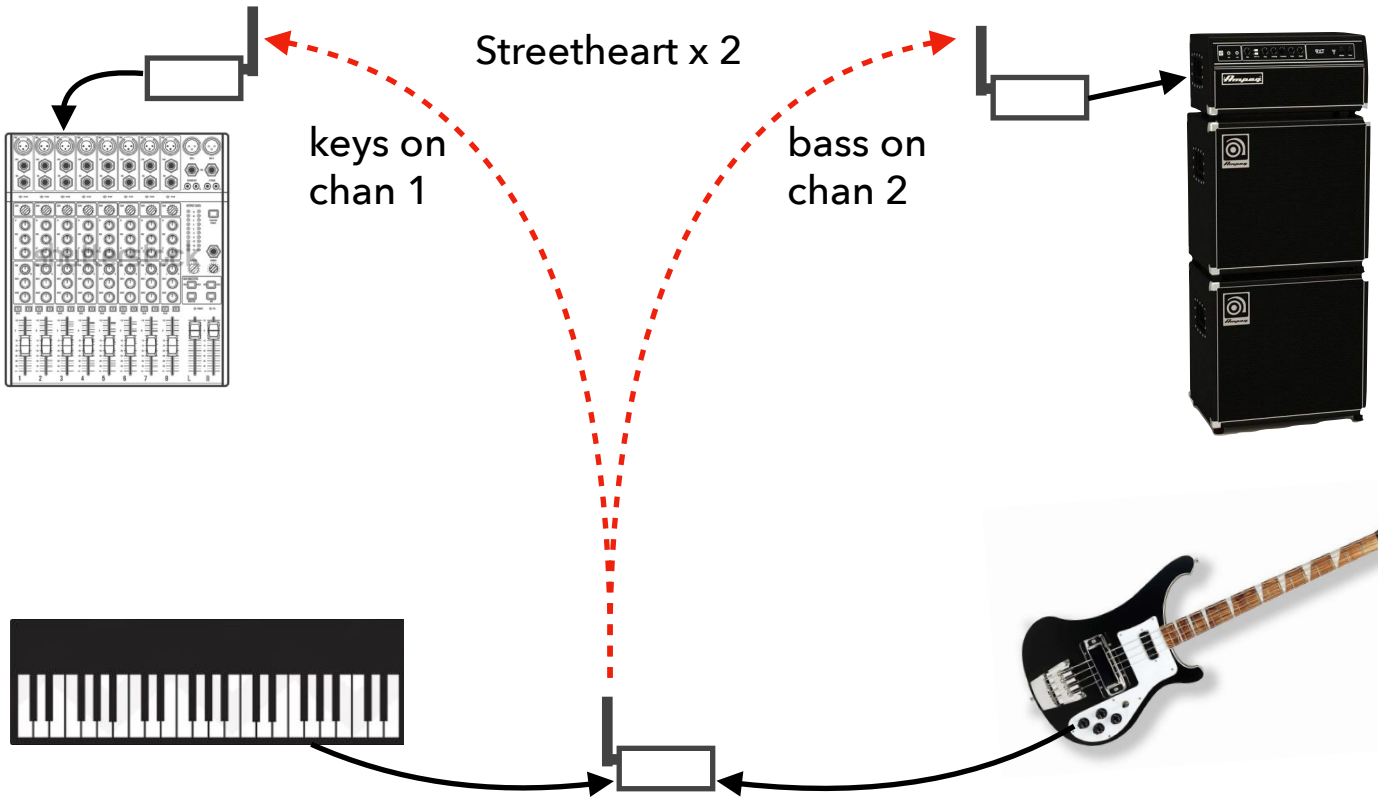

## 6 *go wireless with your drum pad*




*DI yourself right into the front of house desk from anywhere – your sound tech will love you*

## 7

## *the Ged*

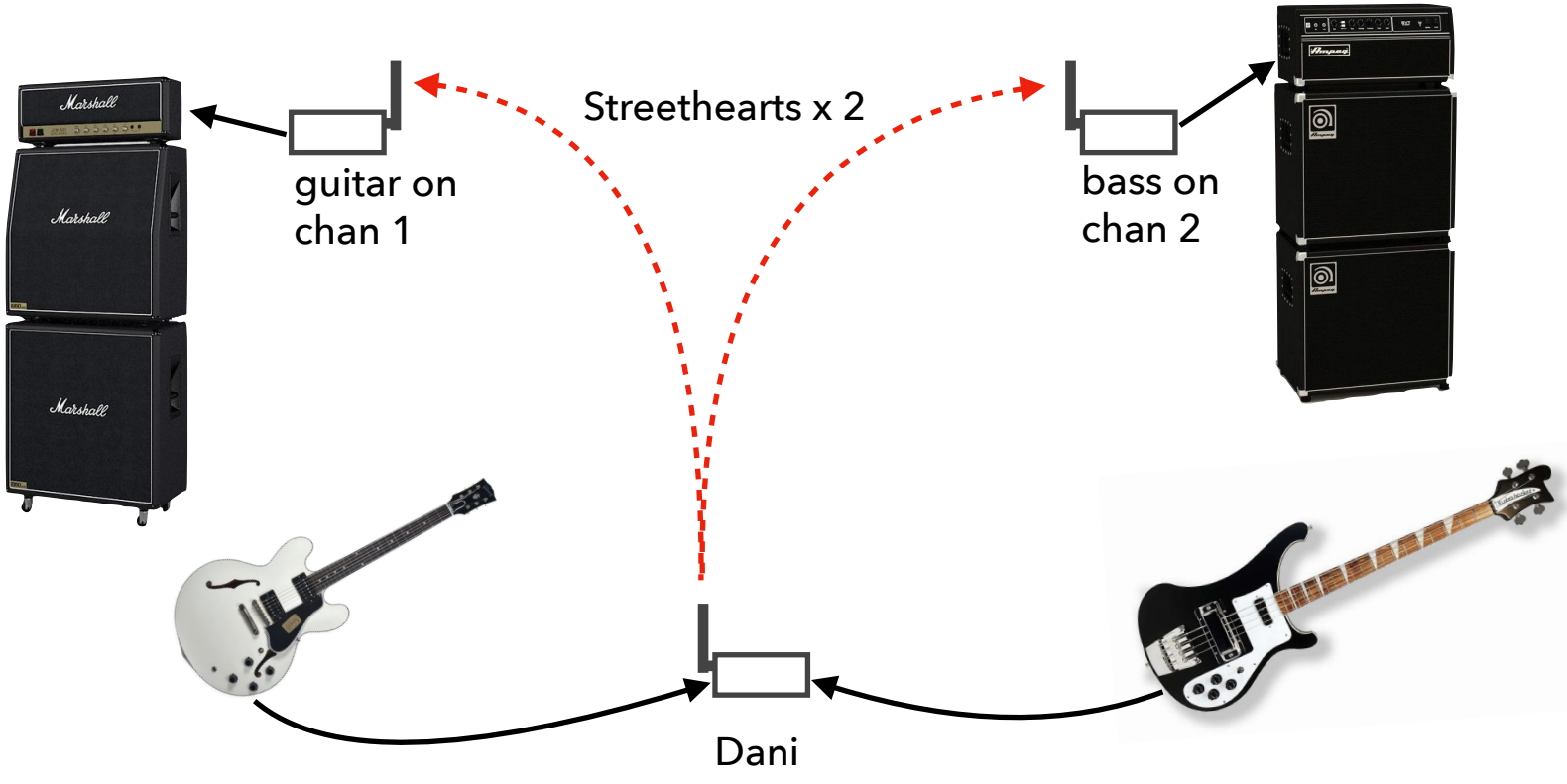



*pedalboard not shown …*

---

## 8

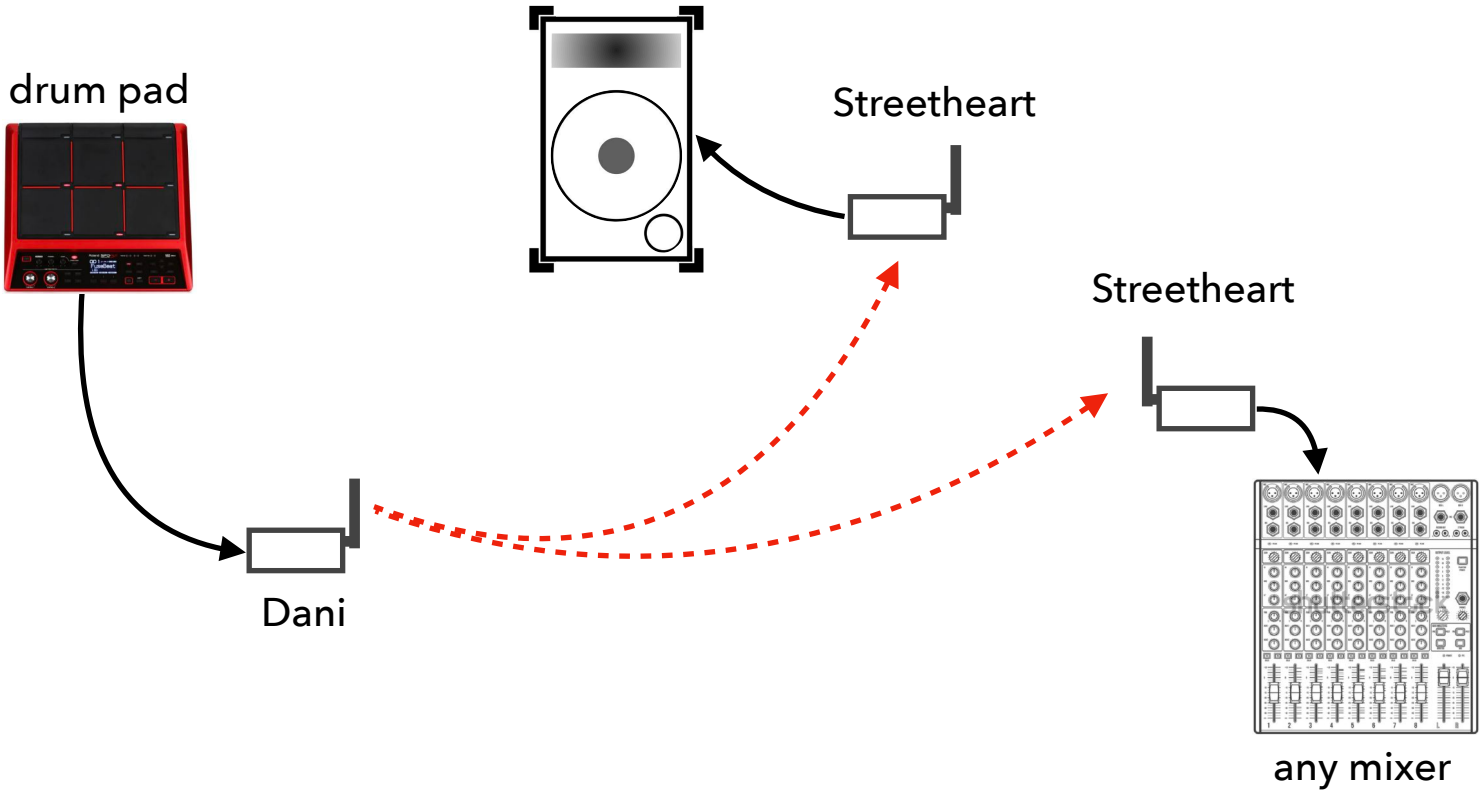
## *the Al & Ged*



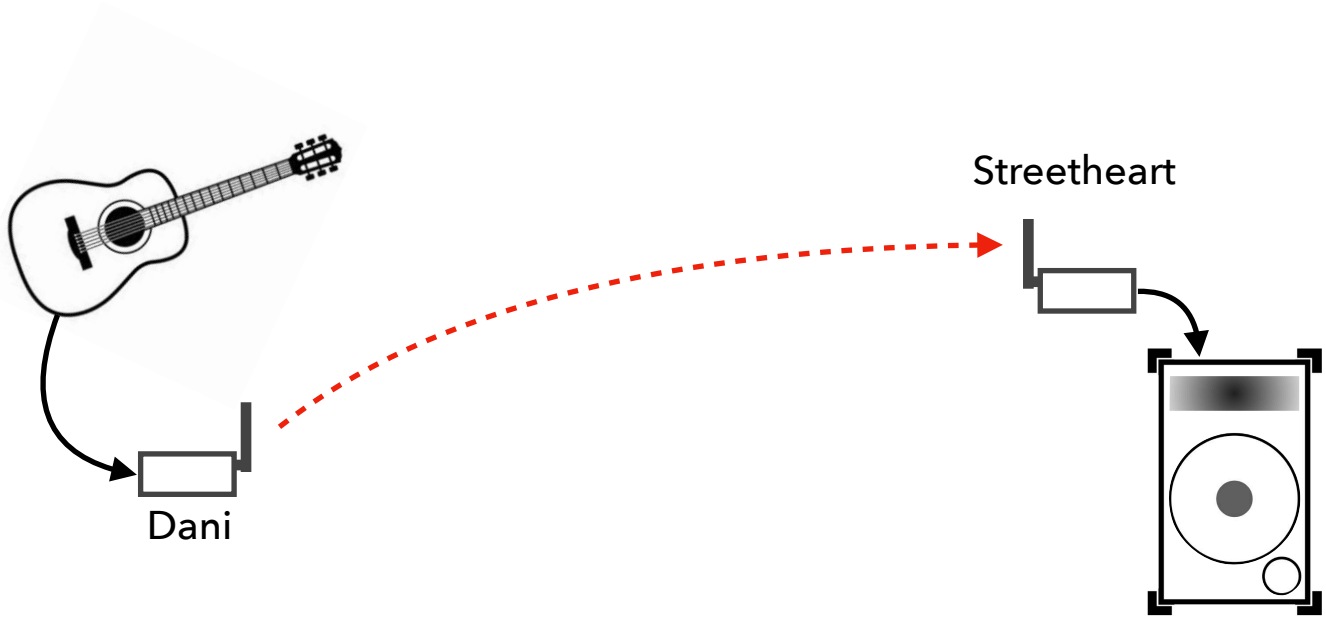

*pedalboards not shown …*
*but you know they're there!*

*ok so A&G never actually*
*shared a Dani … but you can!*

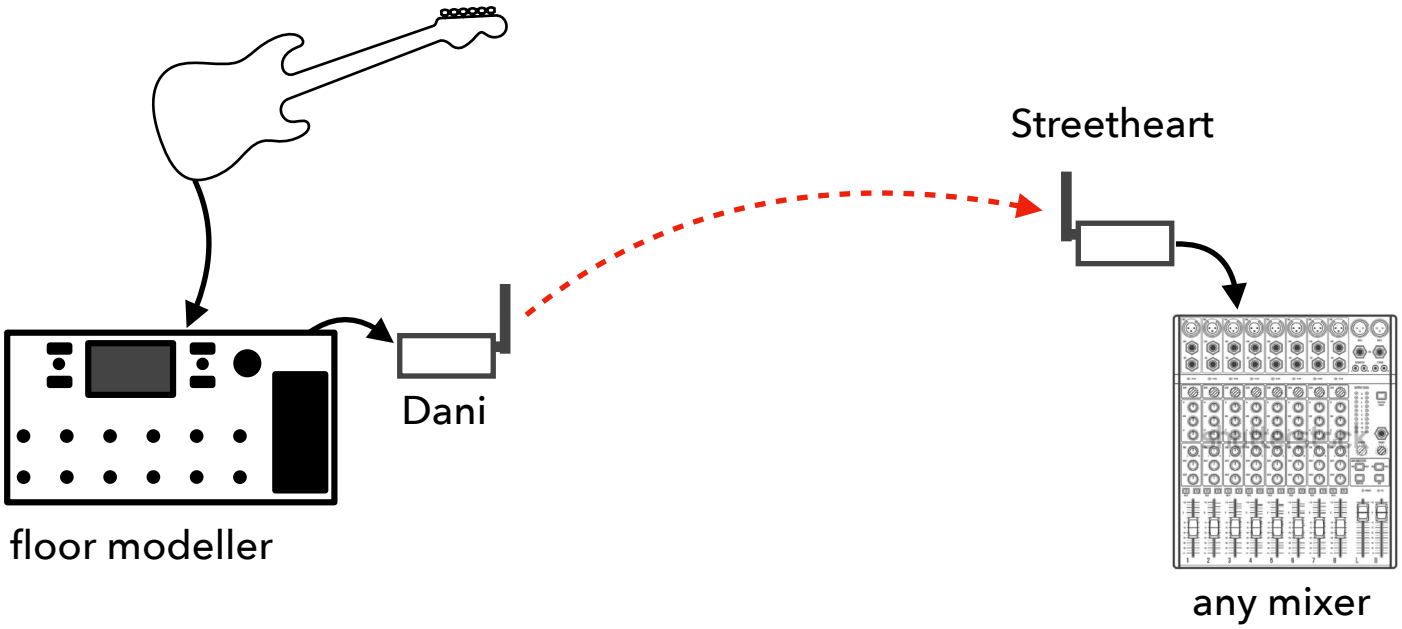
## 9 *don't trust your monitor tech?*



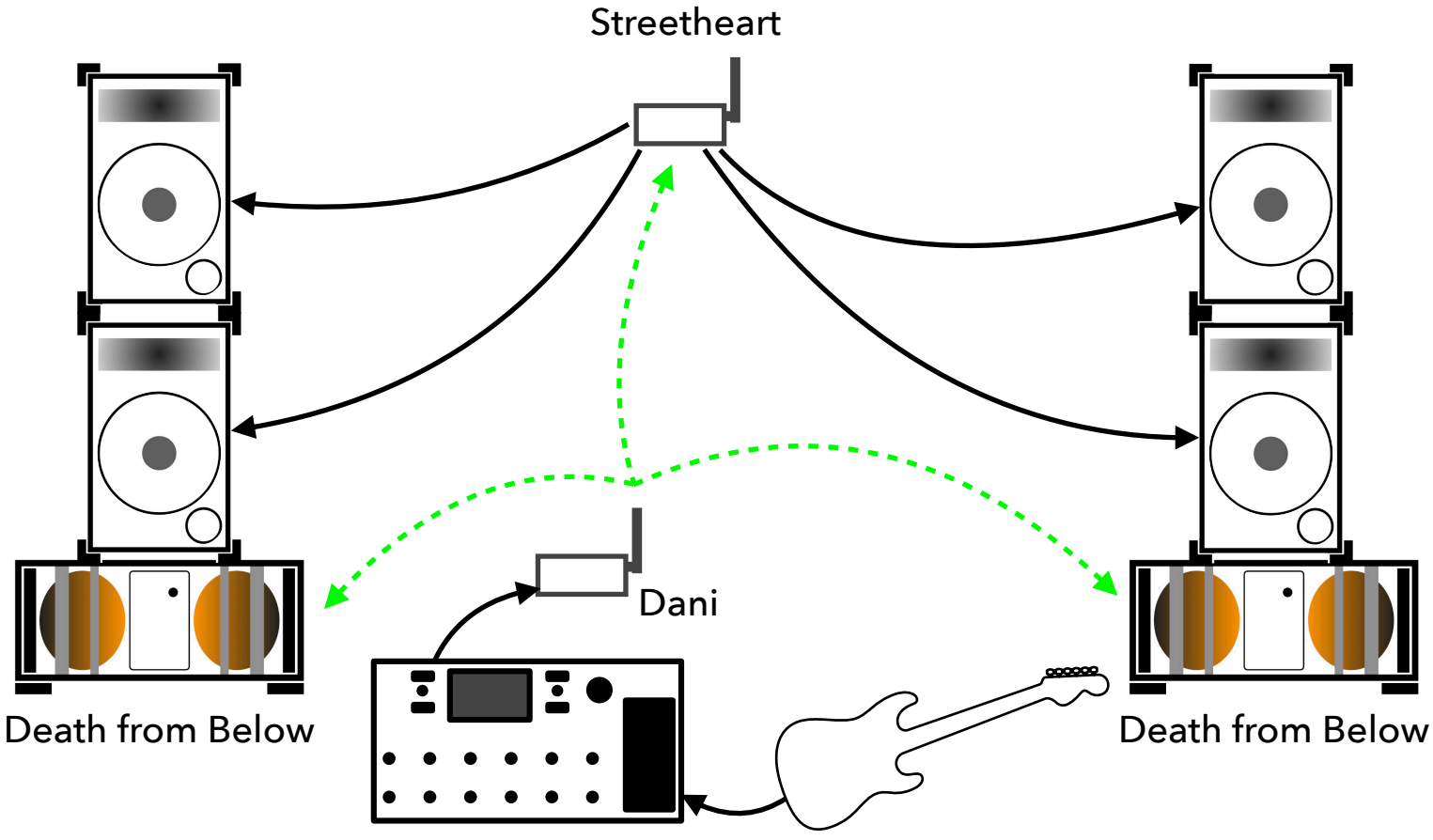

## 10 *the background music gig that pays in "exposure"*



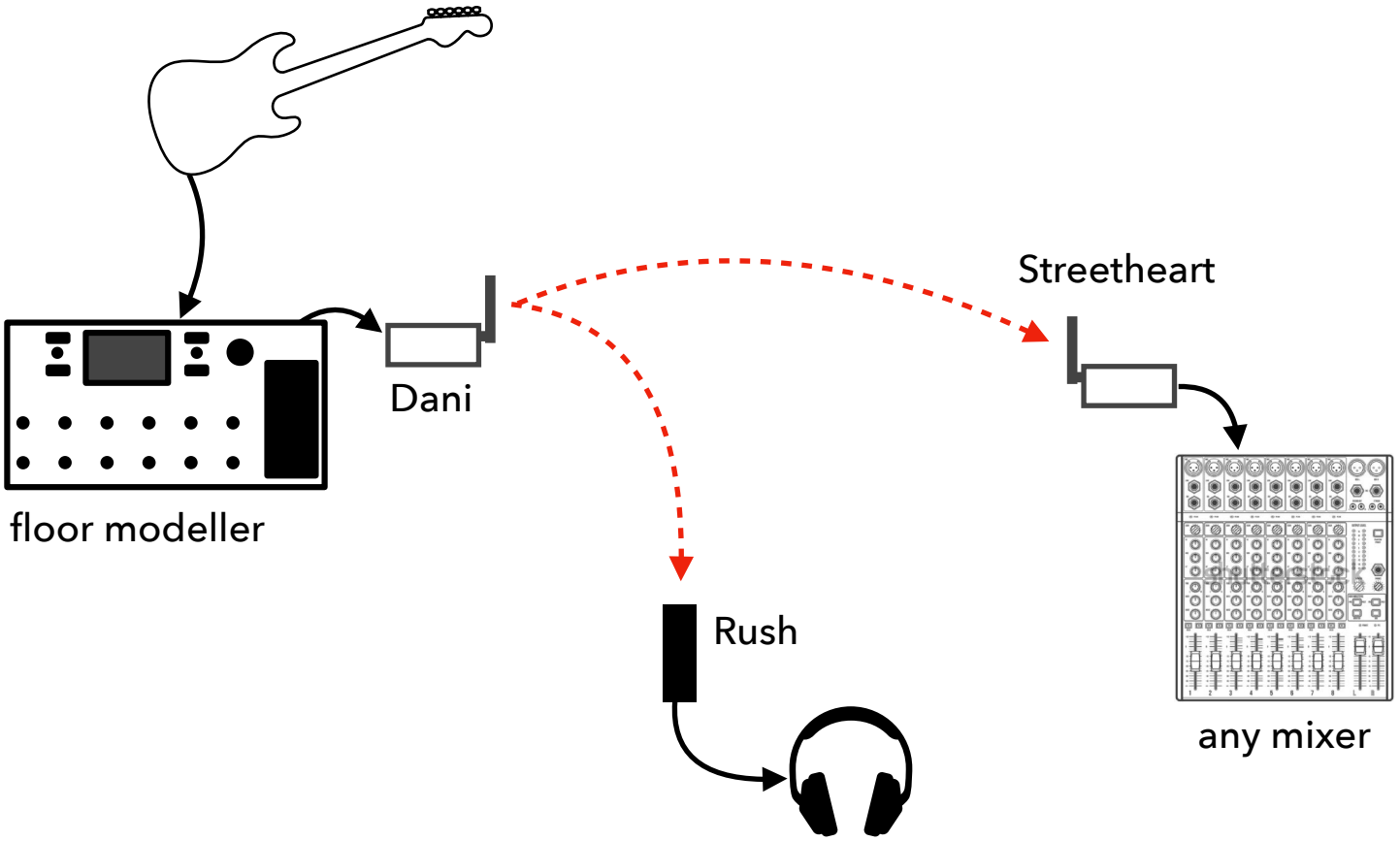
## 11 *"nah, I don't need help loading gear"*



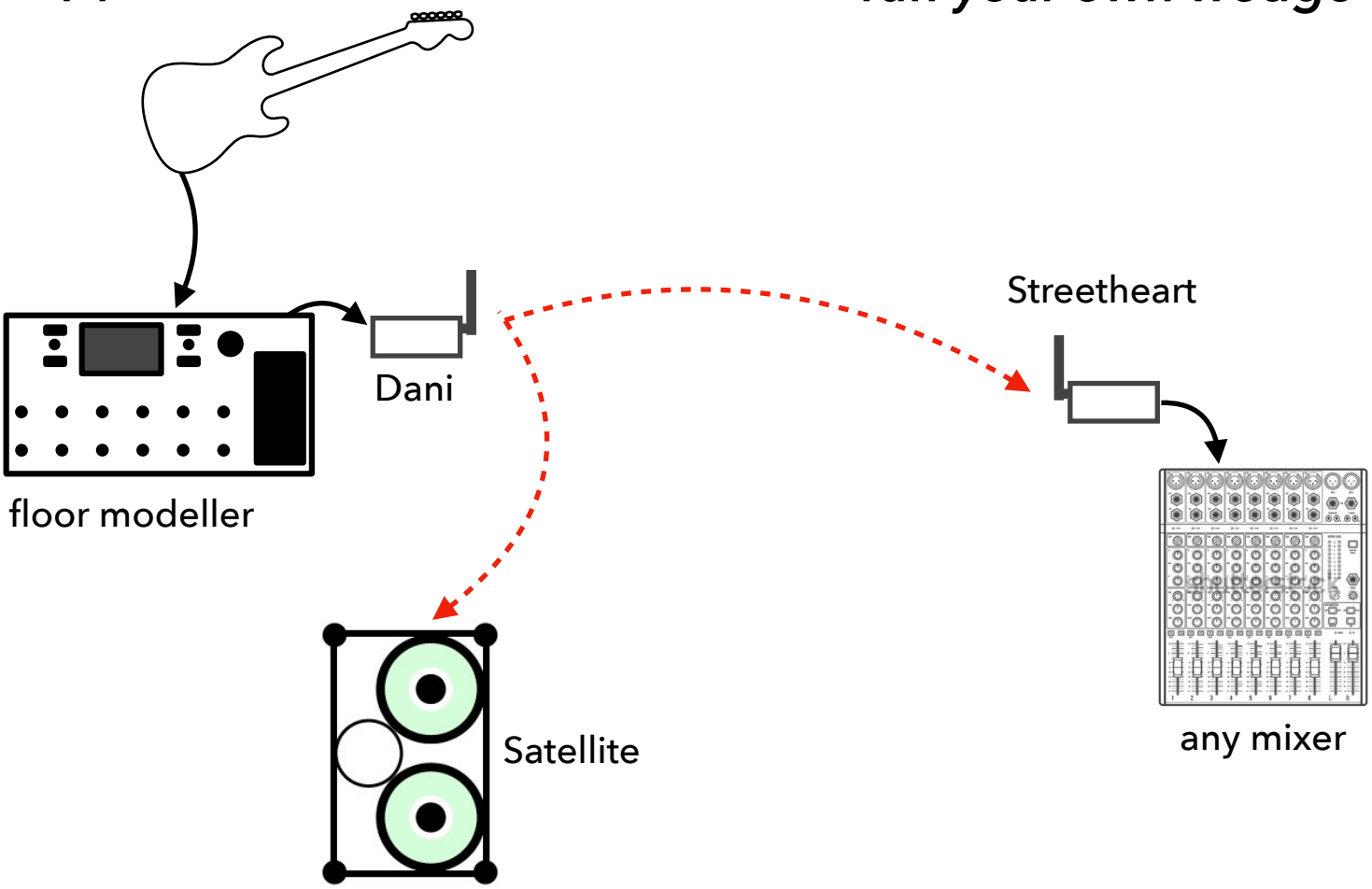

## 12 *"why doesn't anybody help me load gear?"*



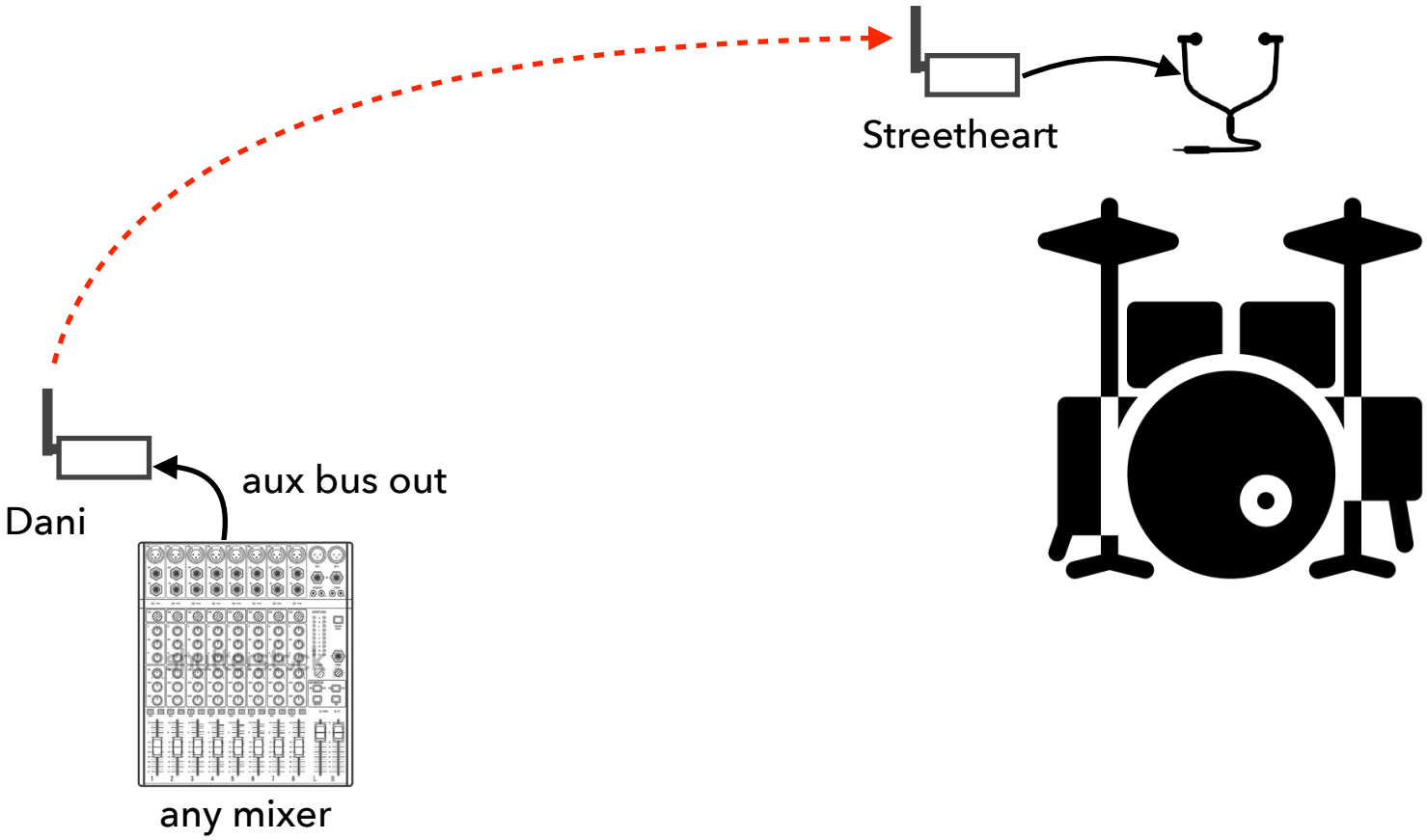
## 13 *run your own monitors*



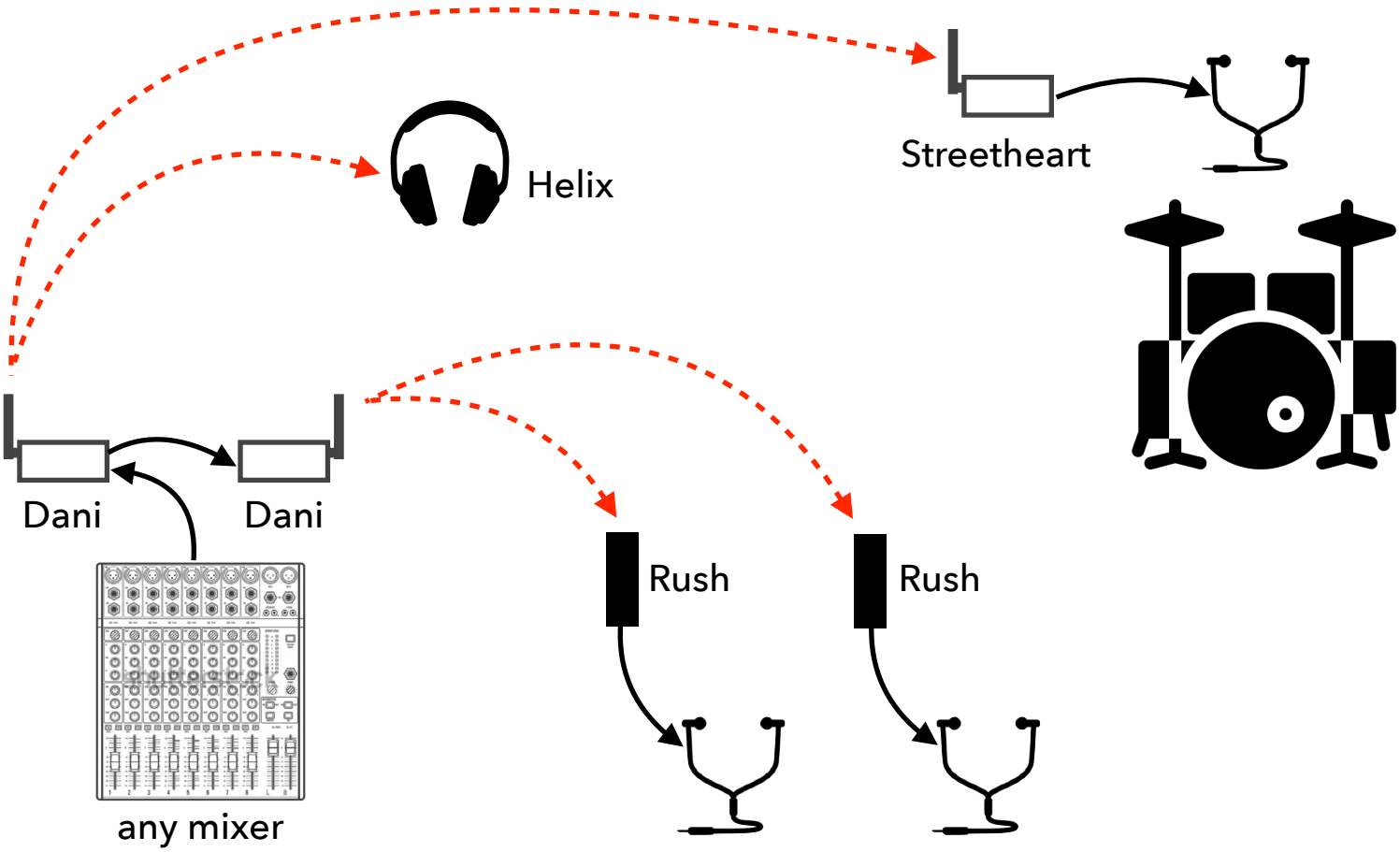

## 14 *run your own wedge*



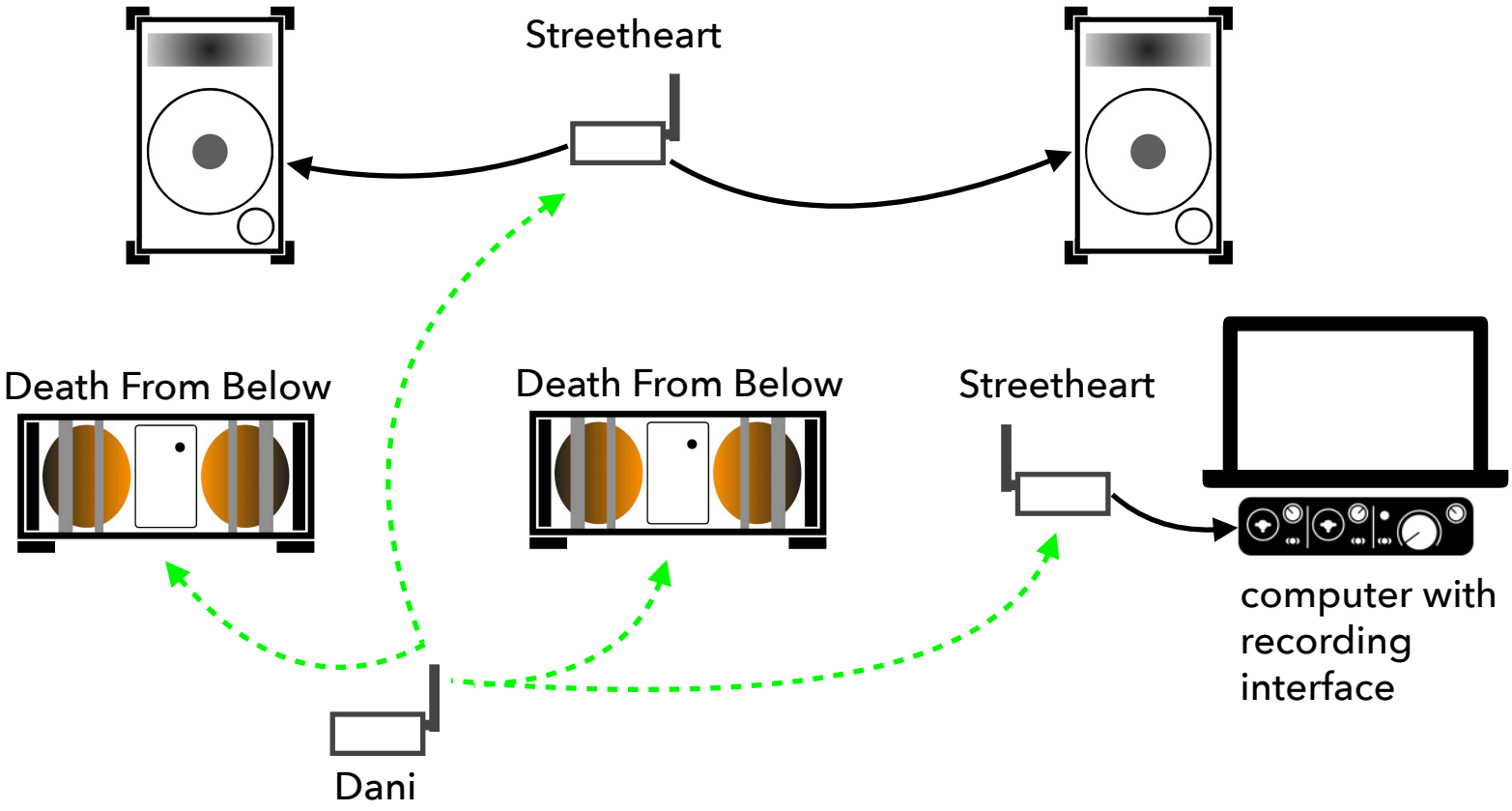
## 15 *in ear monitors for the drummer*



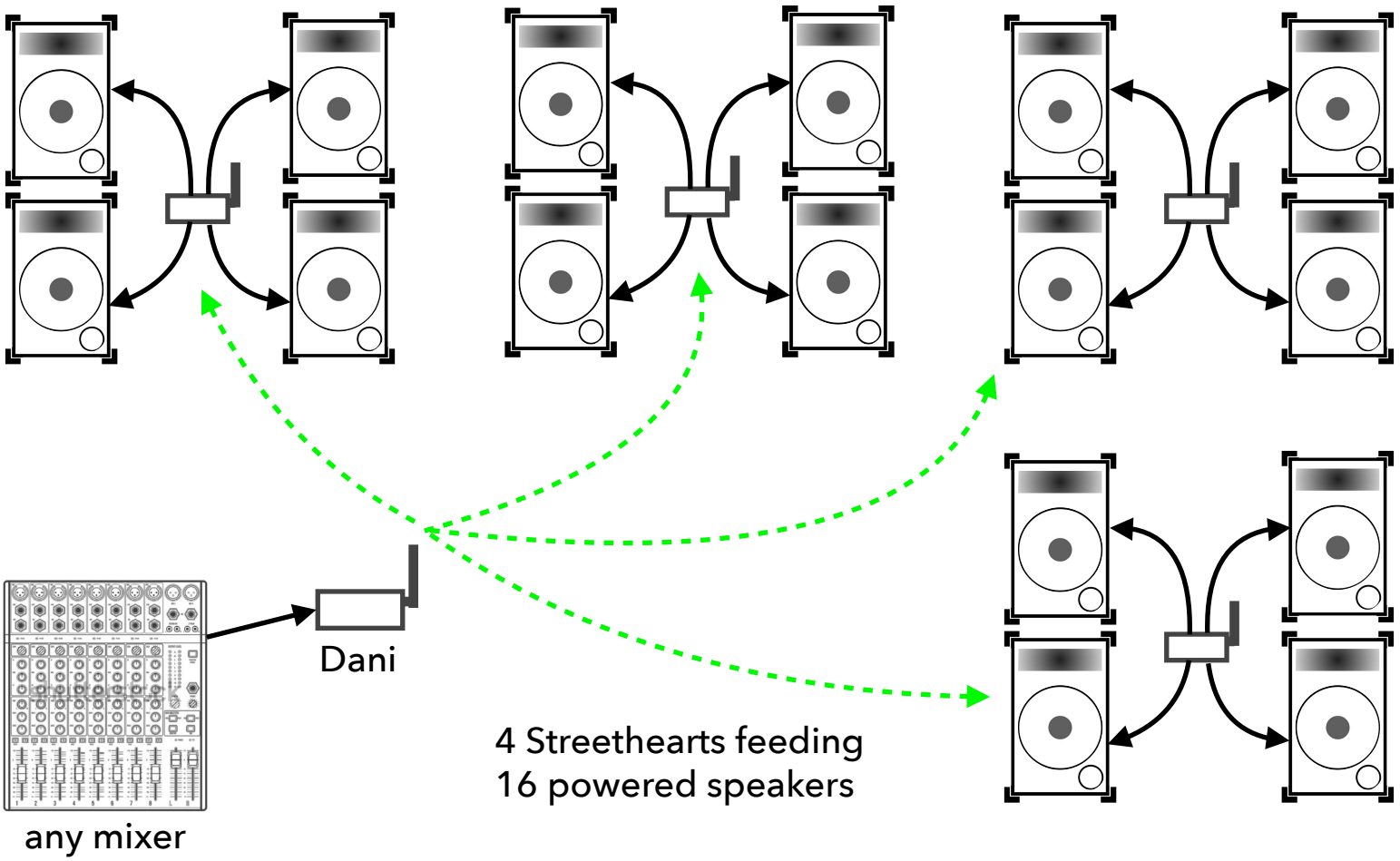

## 16 *personal monitors for everybody*



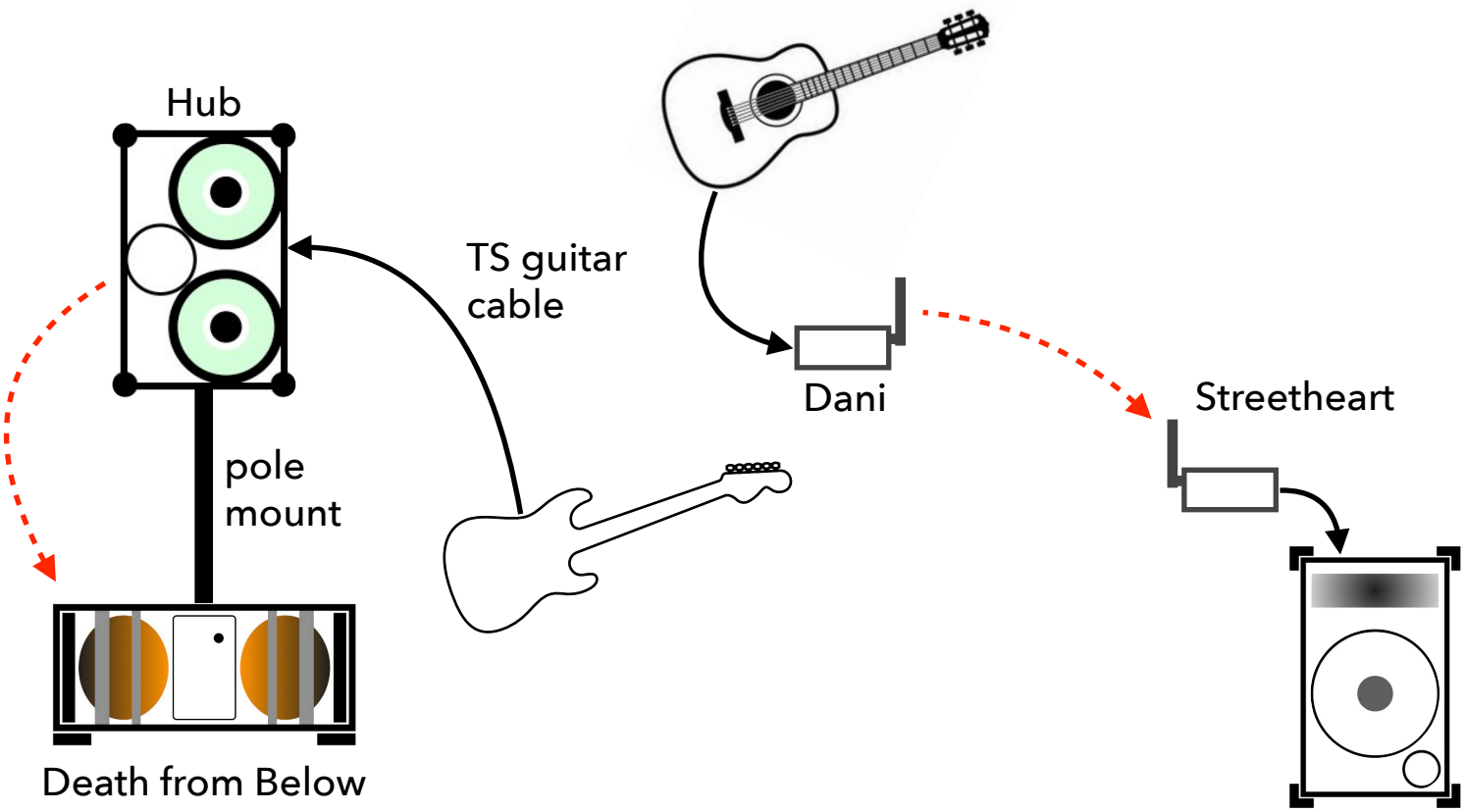
## 17 run and record your front of house audio




## 18 the Grateful Dead called...

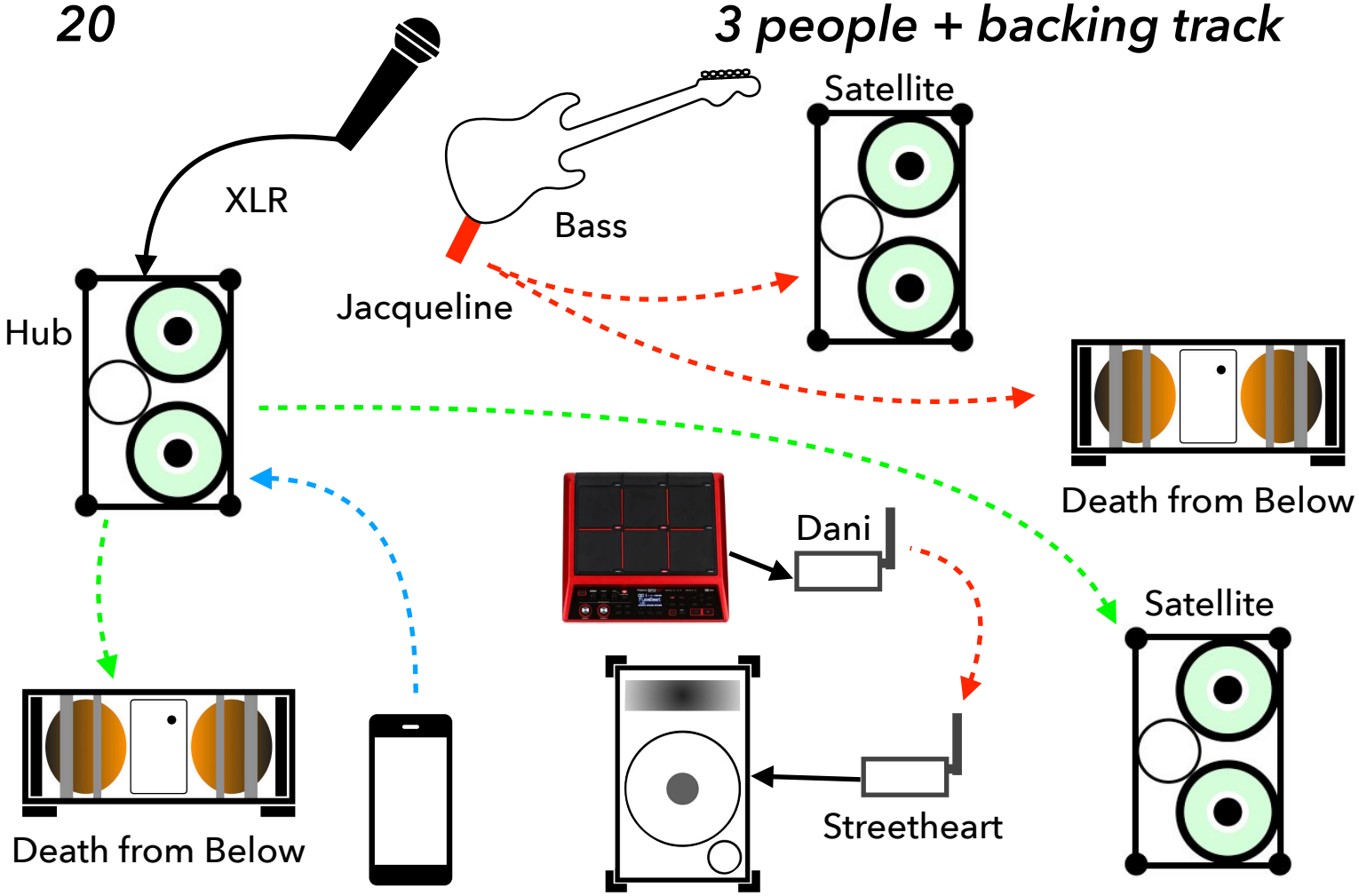


## 2-person jam

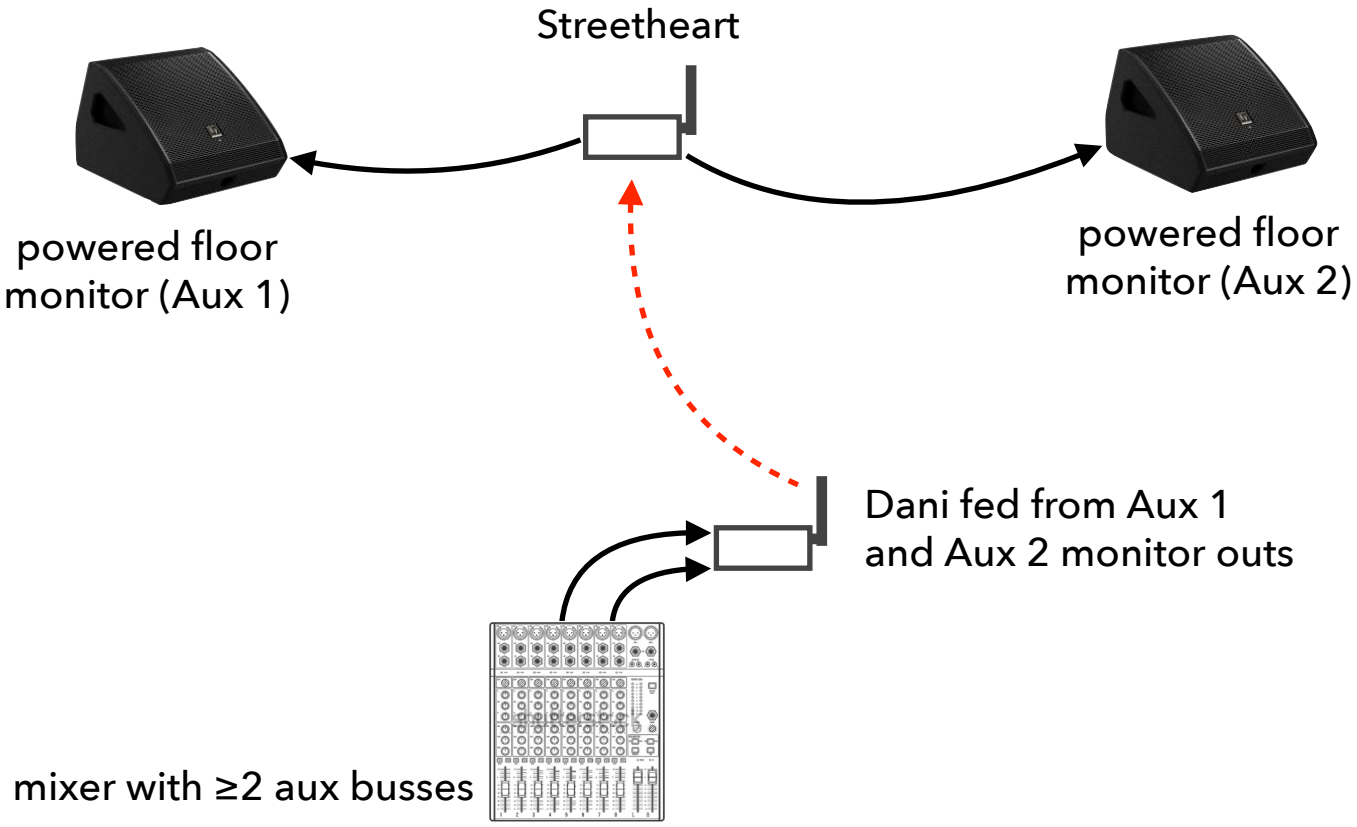




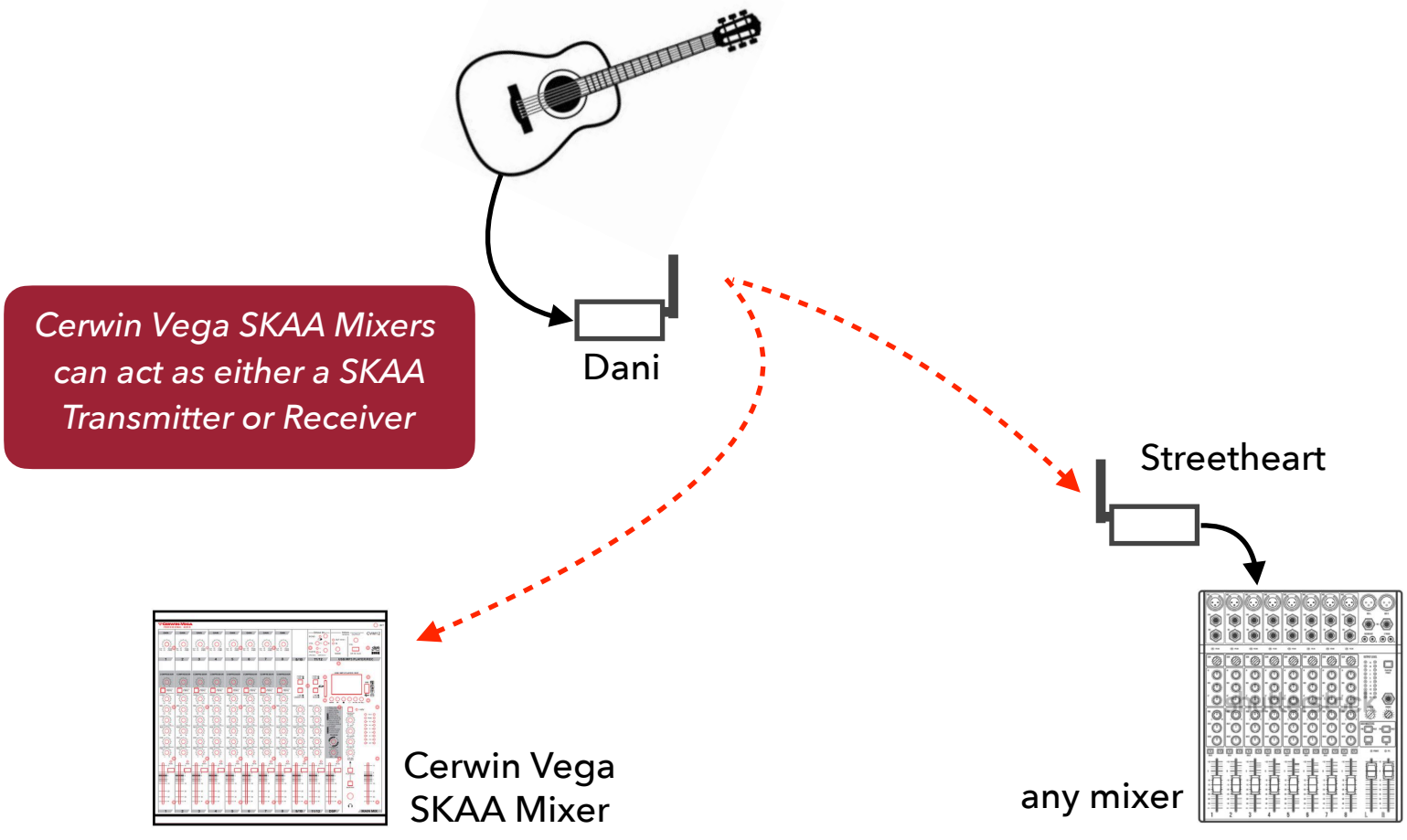

## 3 people + backing track



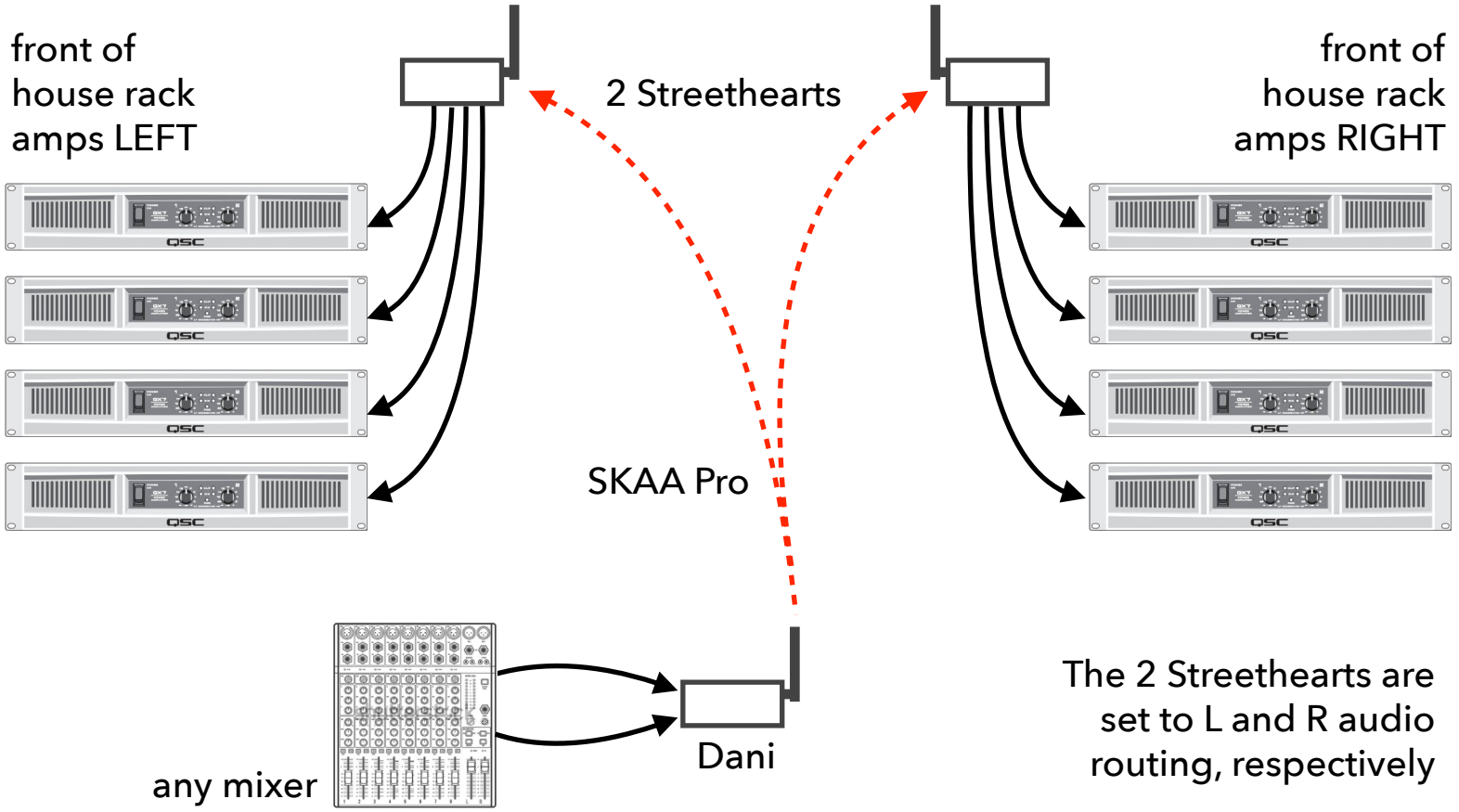
## 21 *run 2 mono monitor mixes on stage*




## 22 *easiest wireless guitar ever*



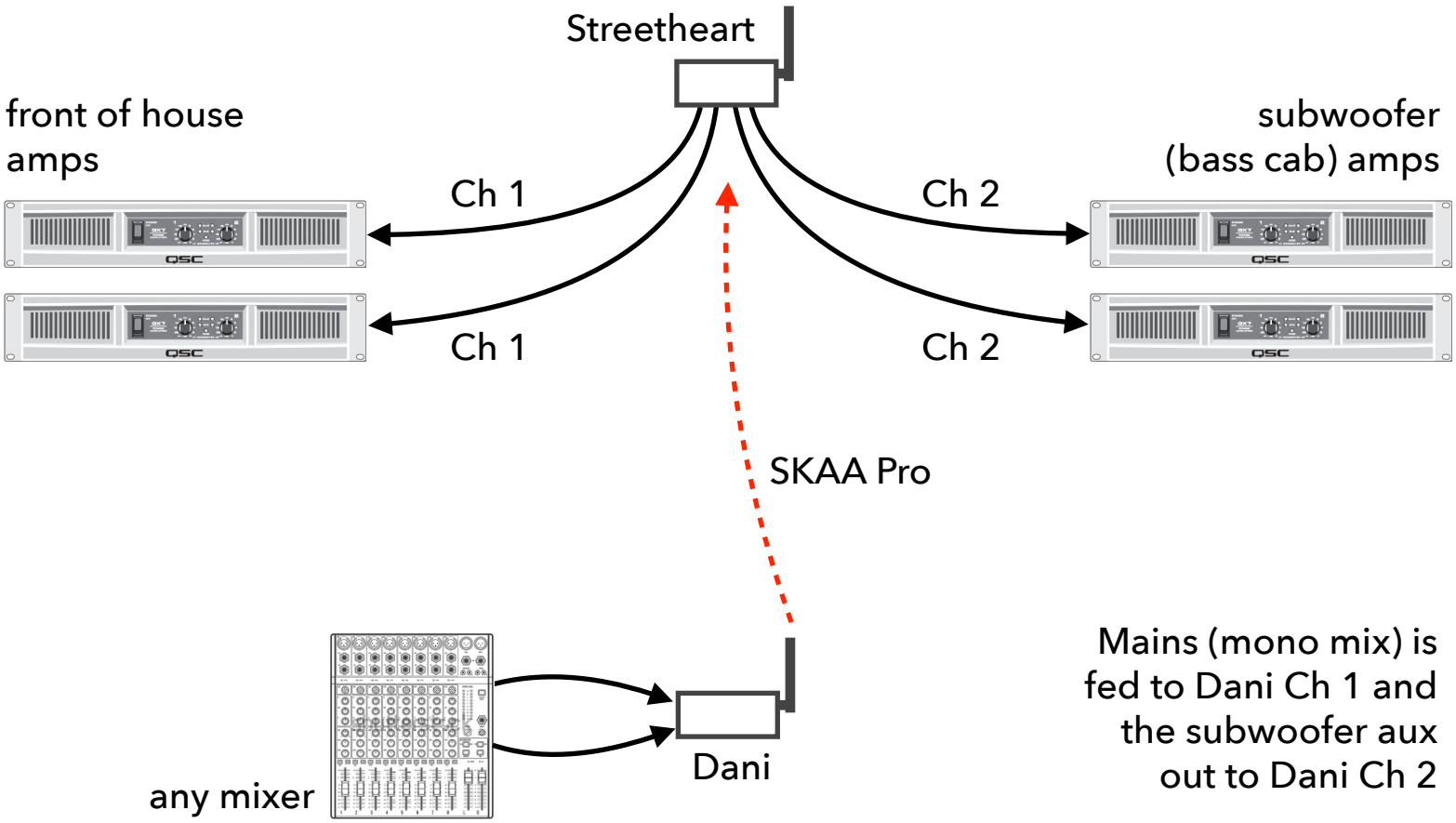
## 23 *feeding 8 rack amps in stereo*




The 2 Streethearts are set to L and R audio routing, respectively

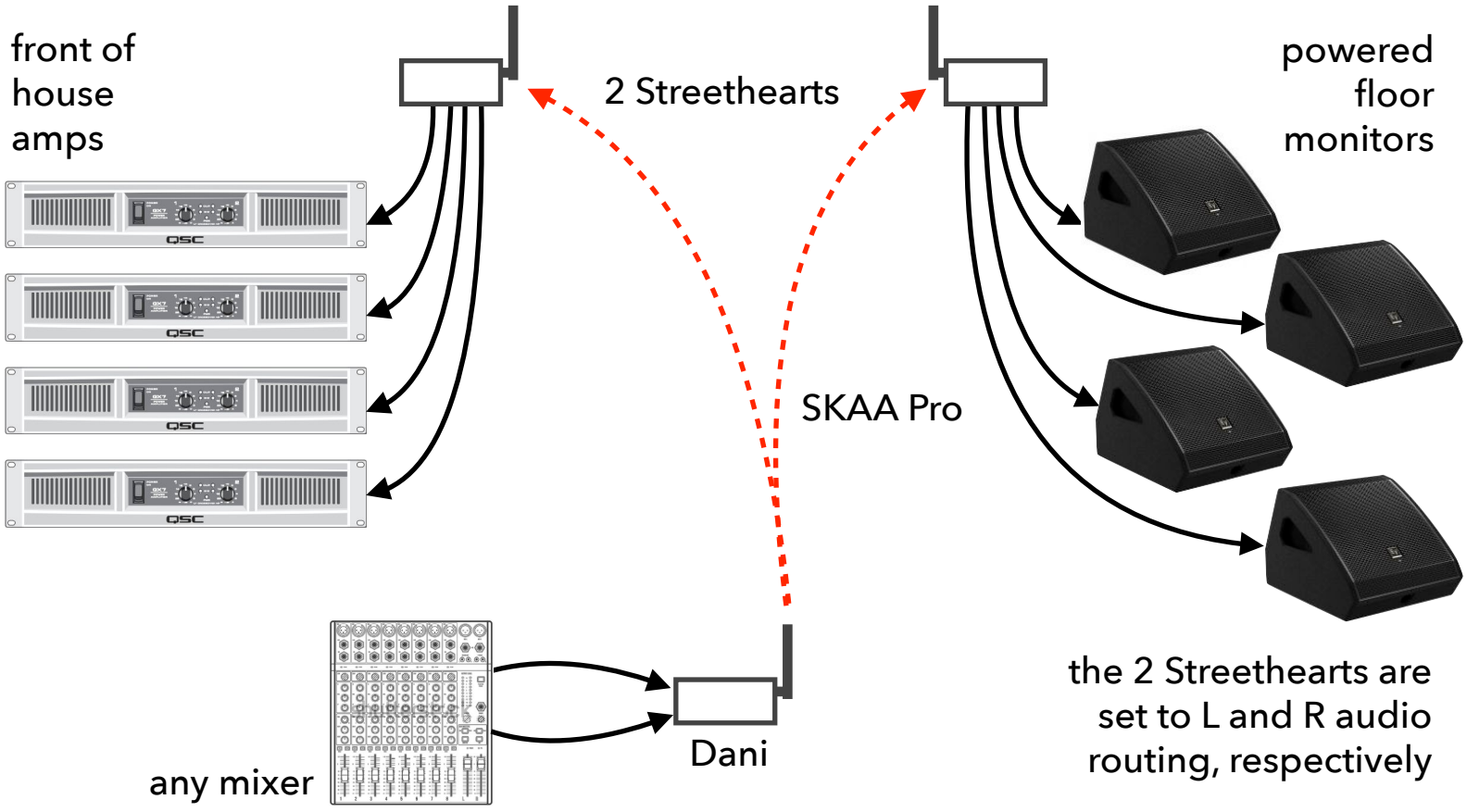
---

## 24 *mains & aux-fed subs*

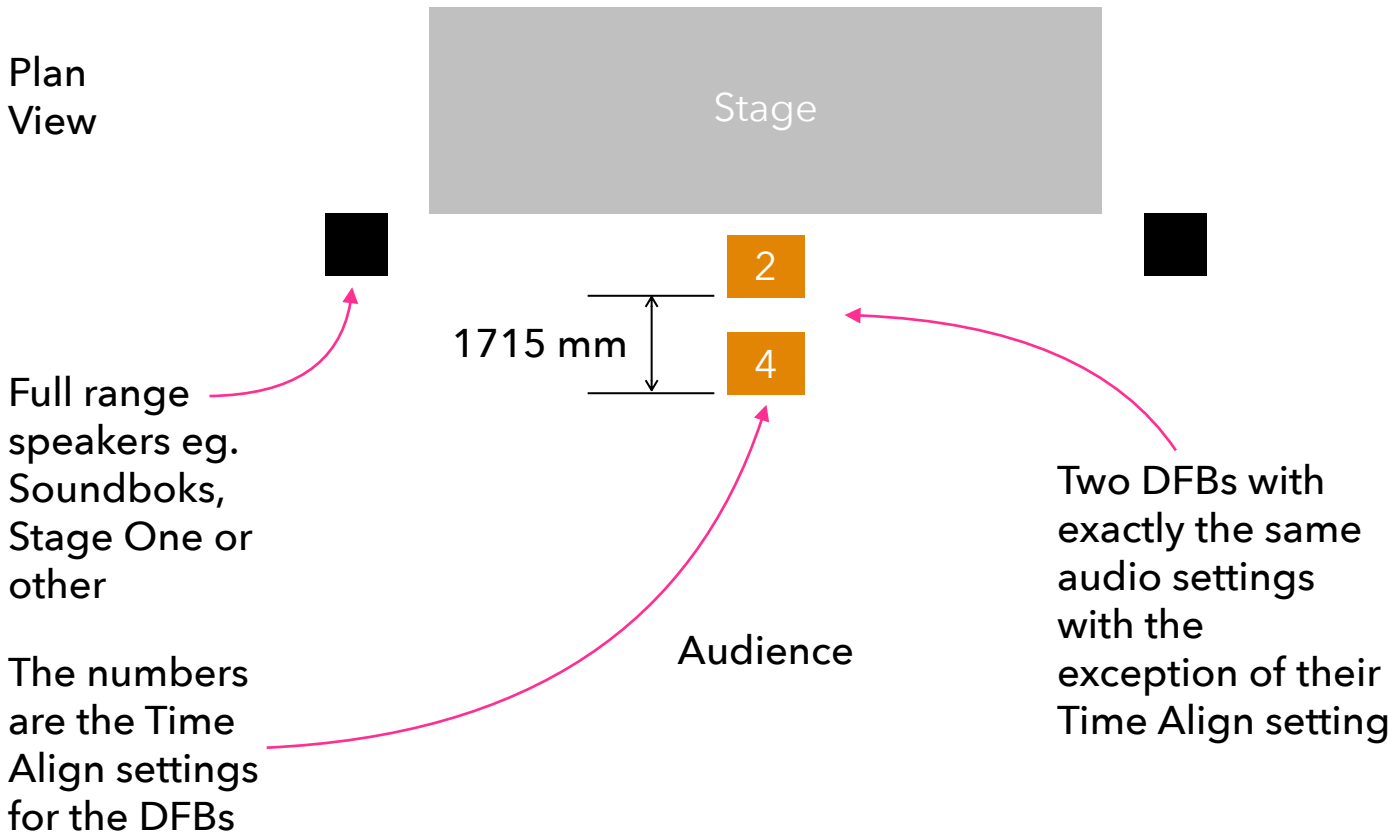



Mains (mono mix) is fed to Dani Ch 1 and the subwoofer aux out to Dani Ch 2

## 25 *front of house and monitors with one Dani*



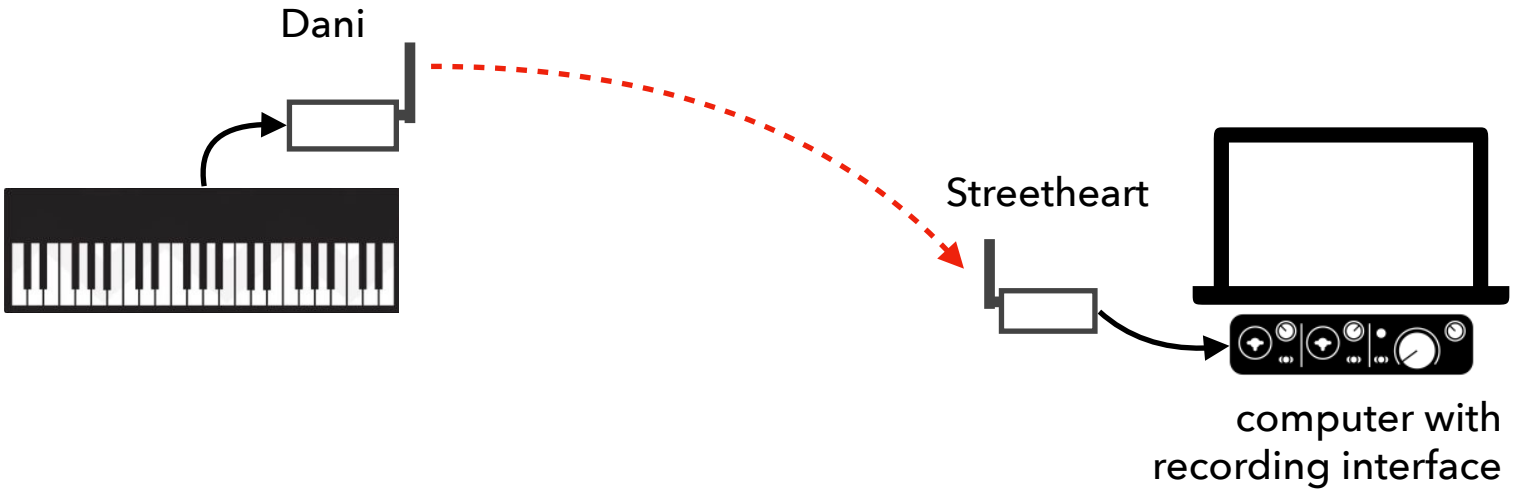

## 26 *beam forming array*



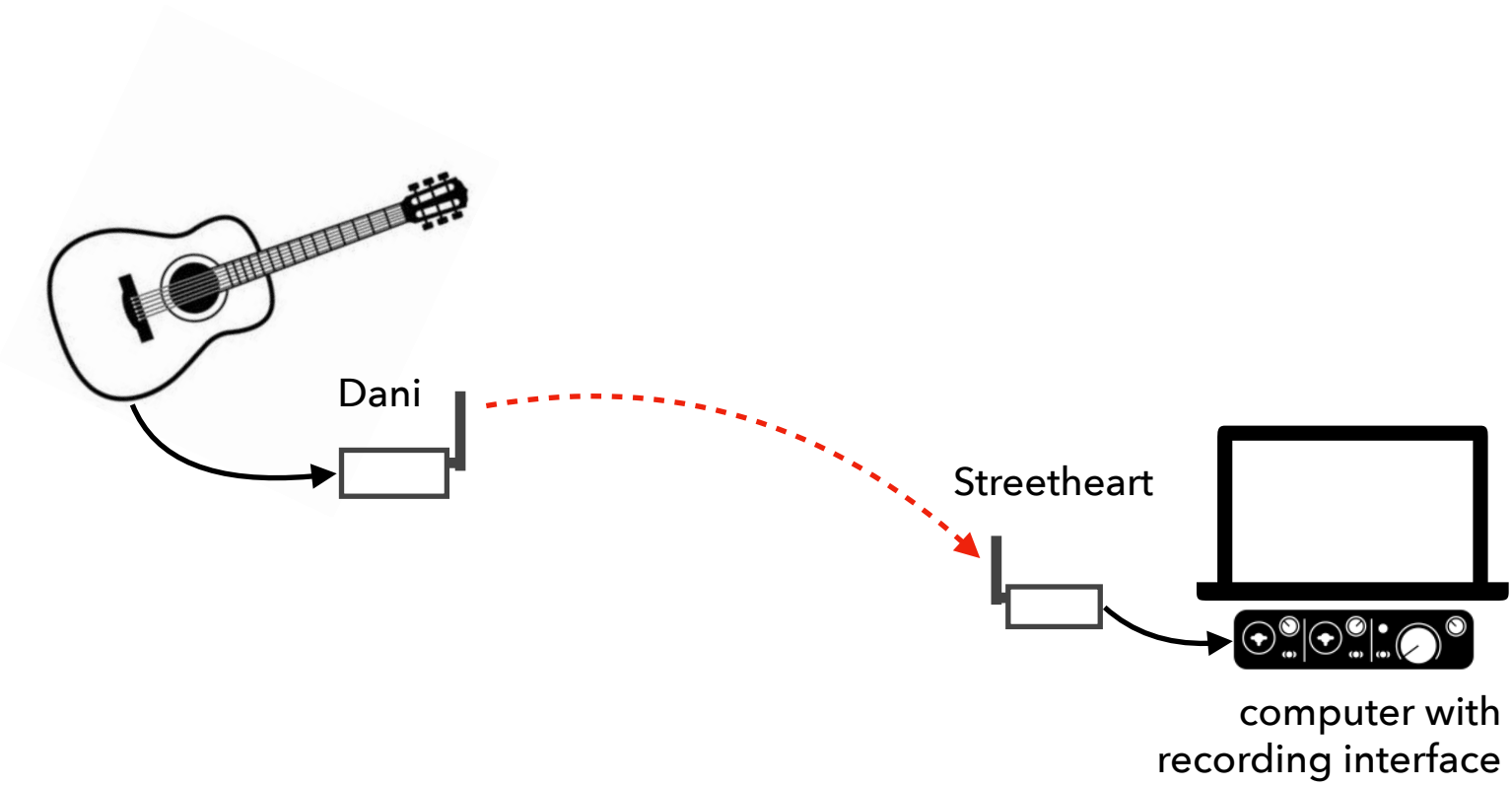
# STUDIO

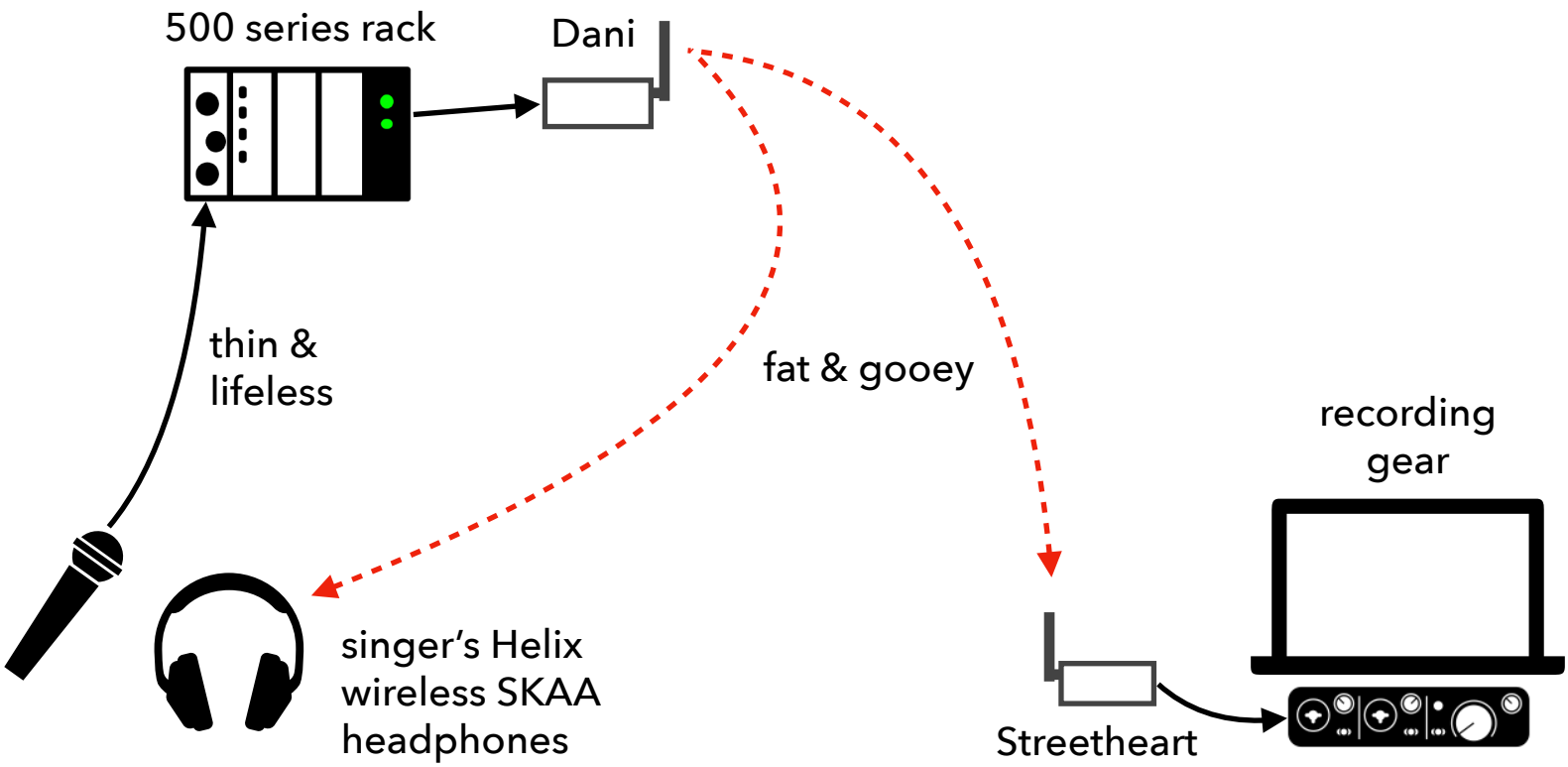

DILLINGER LABS

## 27 *what, me worry about studio cables?*

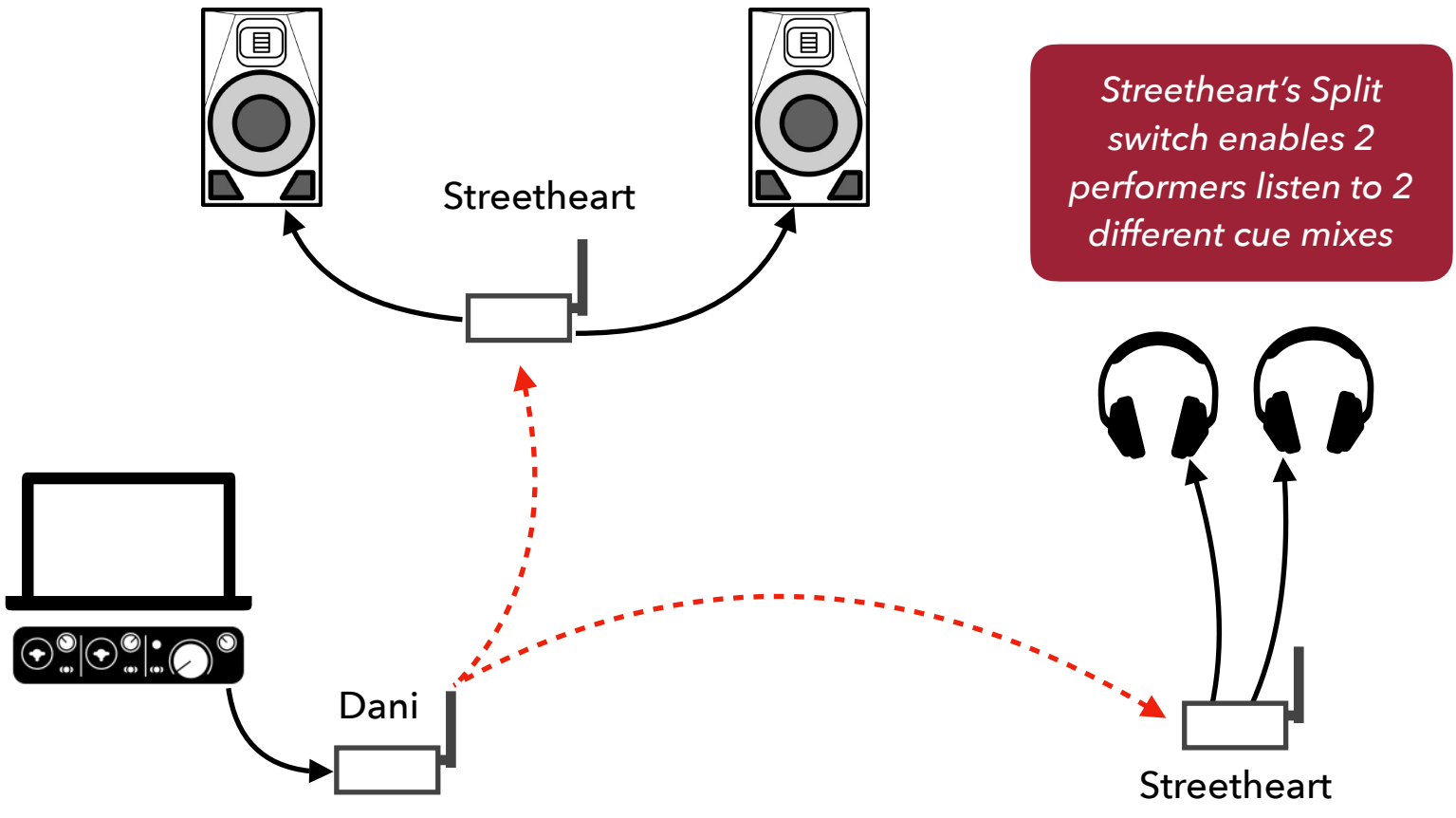



## 28 *what, me wire up the live room?*

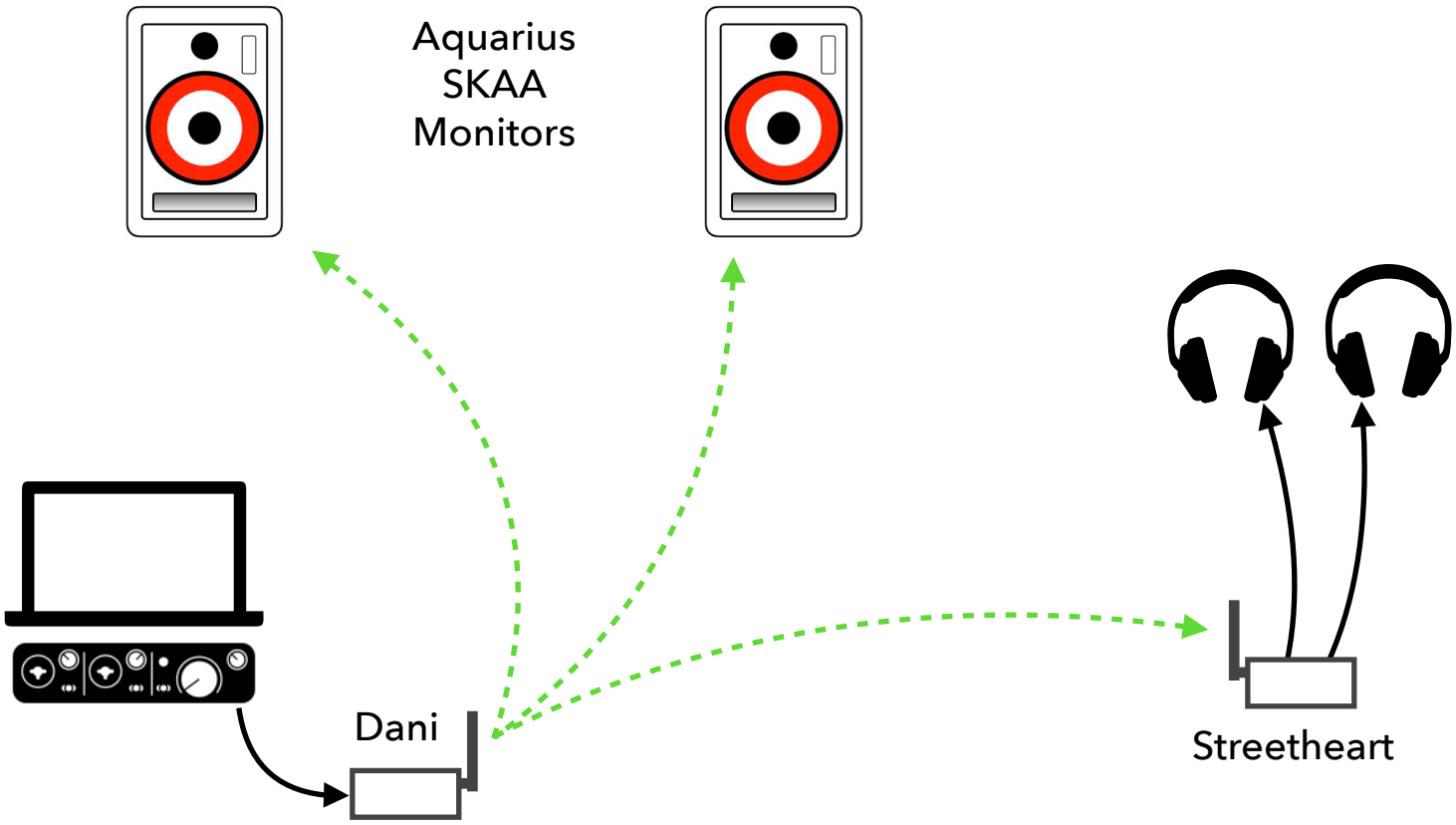



500 series rack
Dani
thin &
lifeless
fat & gooey
recording
gear
singer's Helix
wireless SKAA
headphones
Streetheart

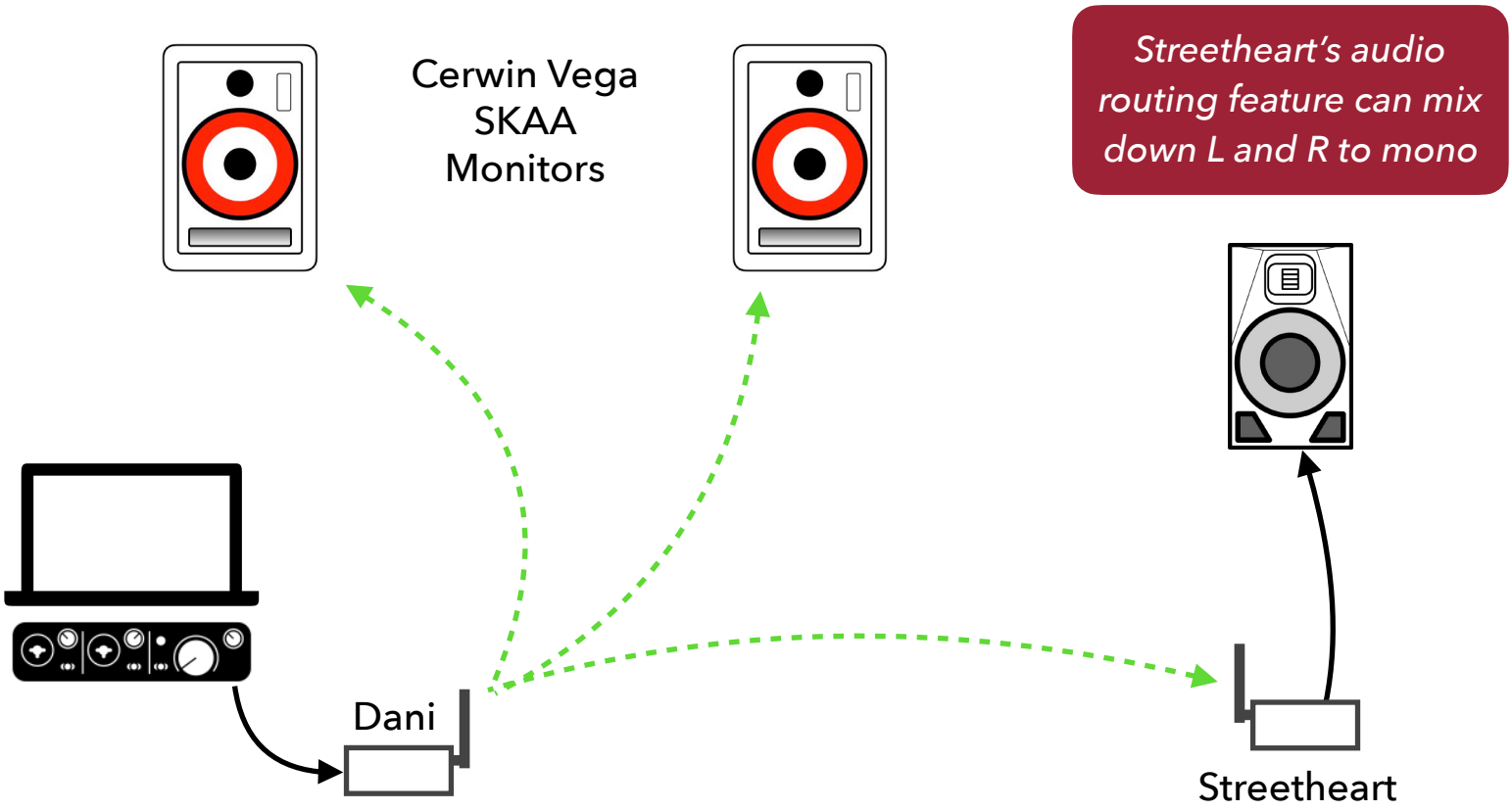


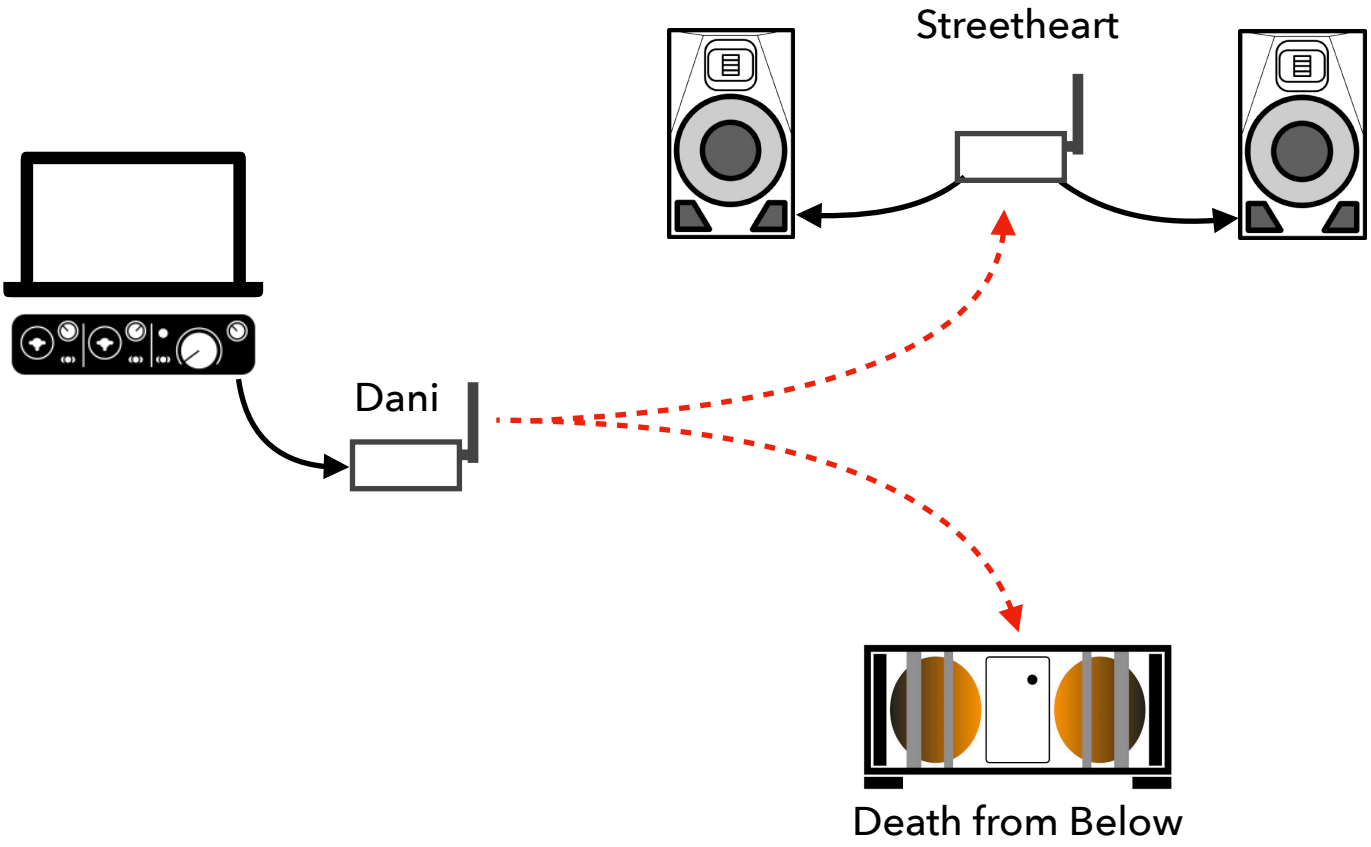

Streetheart's Split switch enables 2 performers listen to 2 different cue mixes
Streetheart
Dani
Streetheart

## 31 *use a pair of SKAA monitors*

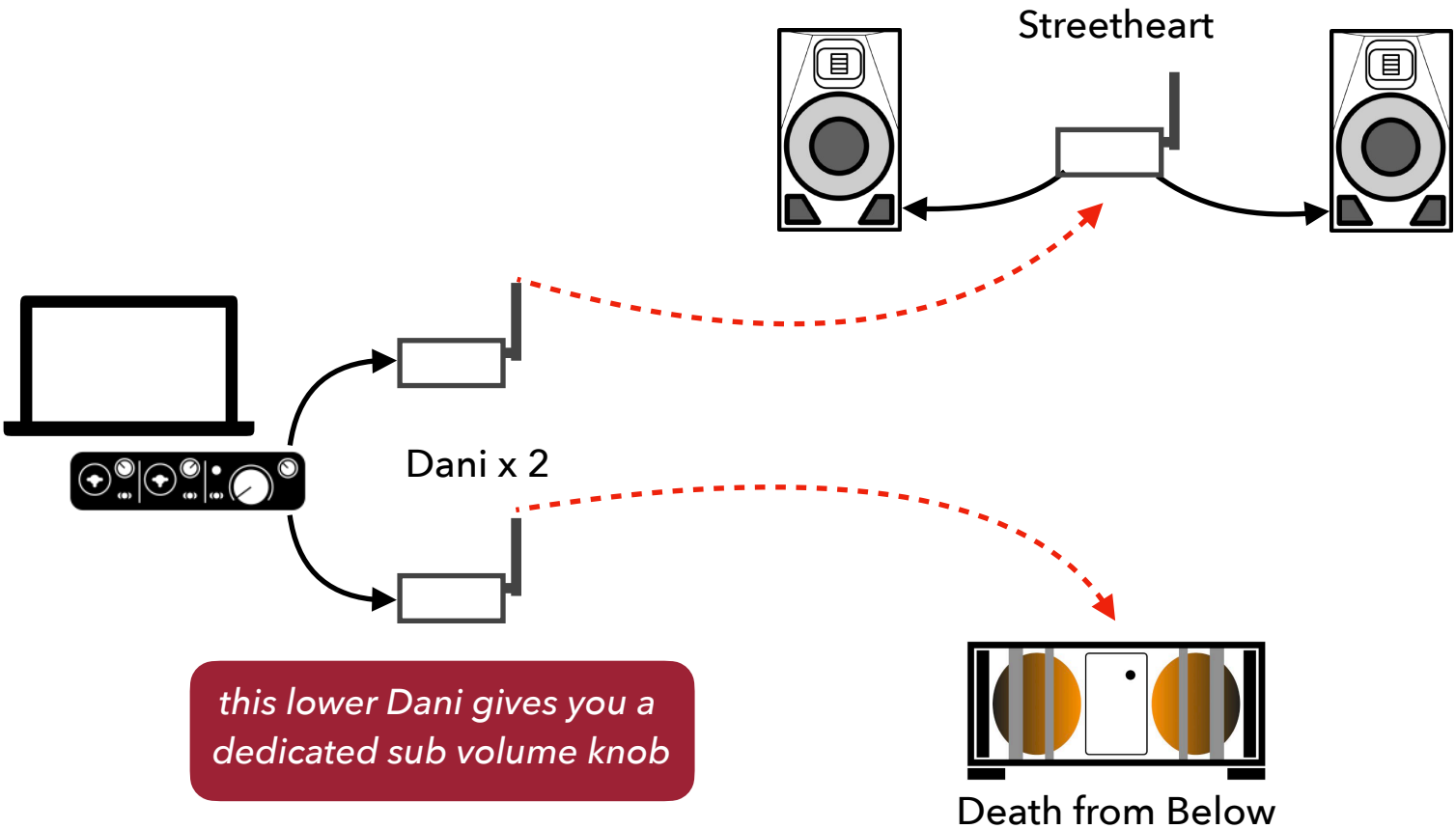



## 32 *add a playback speaker for your live room*

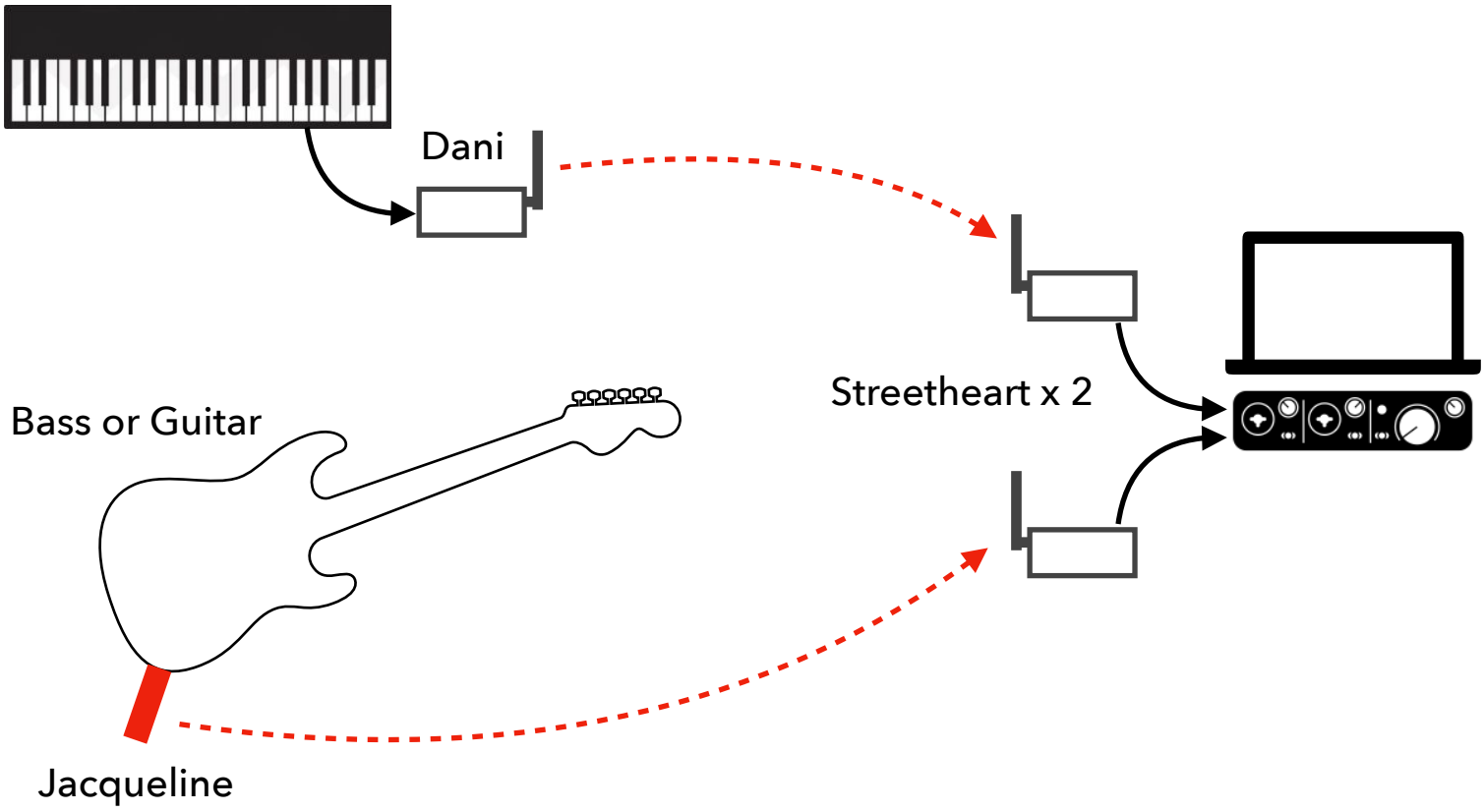




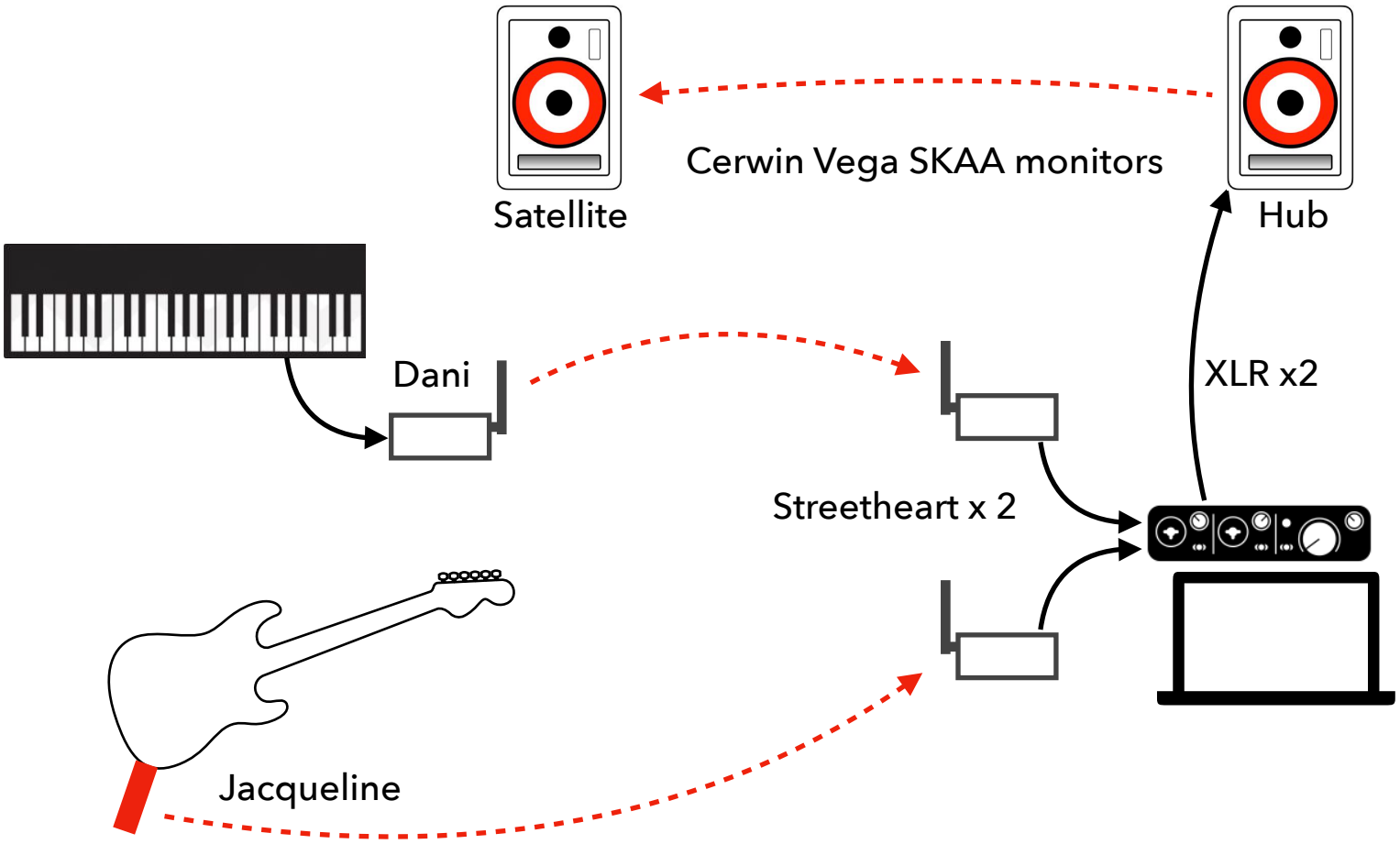

## 34 or feed DFB from its own DAW output (like a boss)



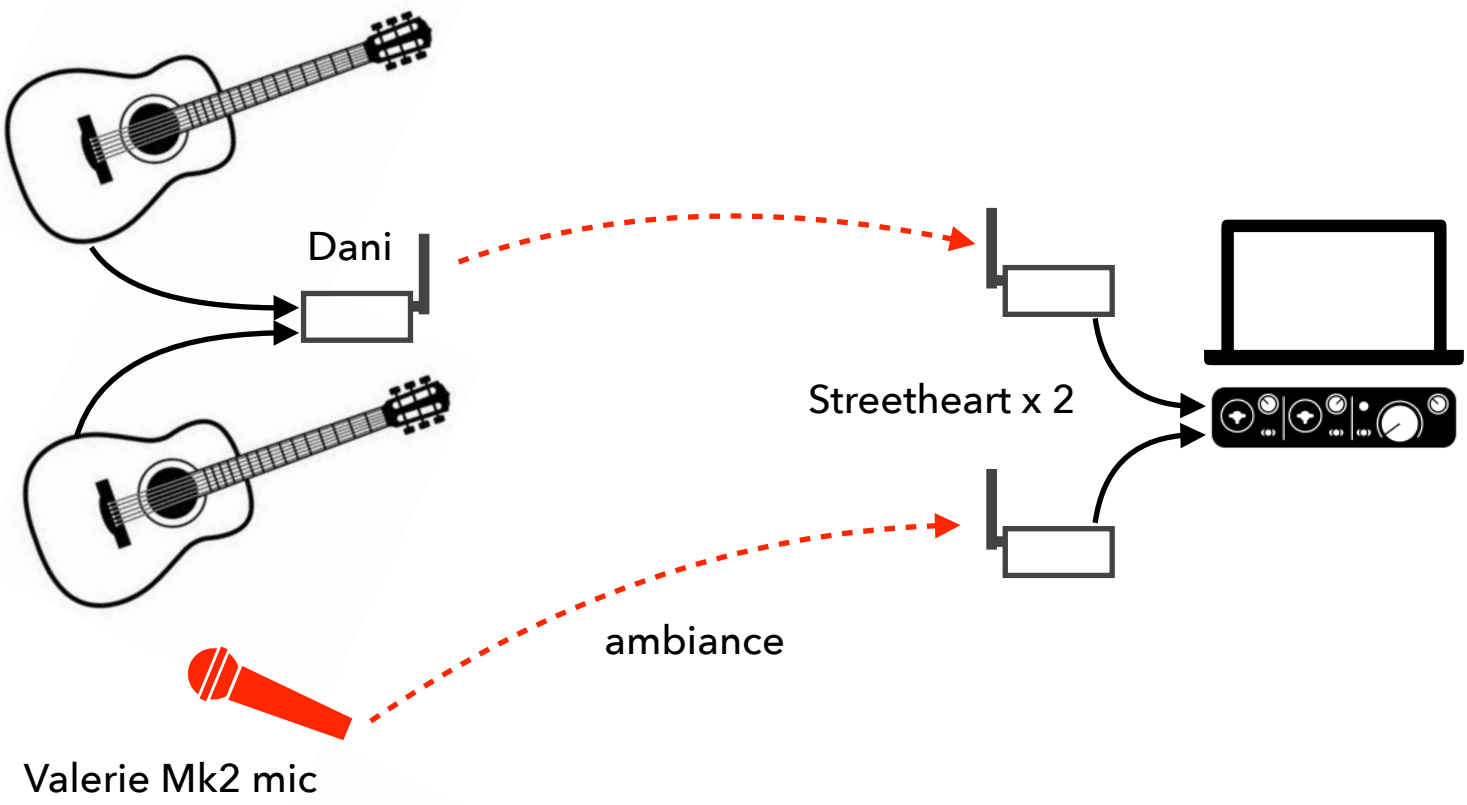
35 *duo recording session*



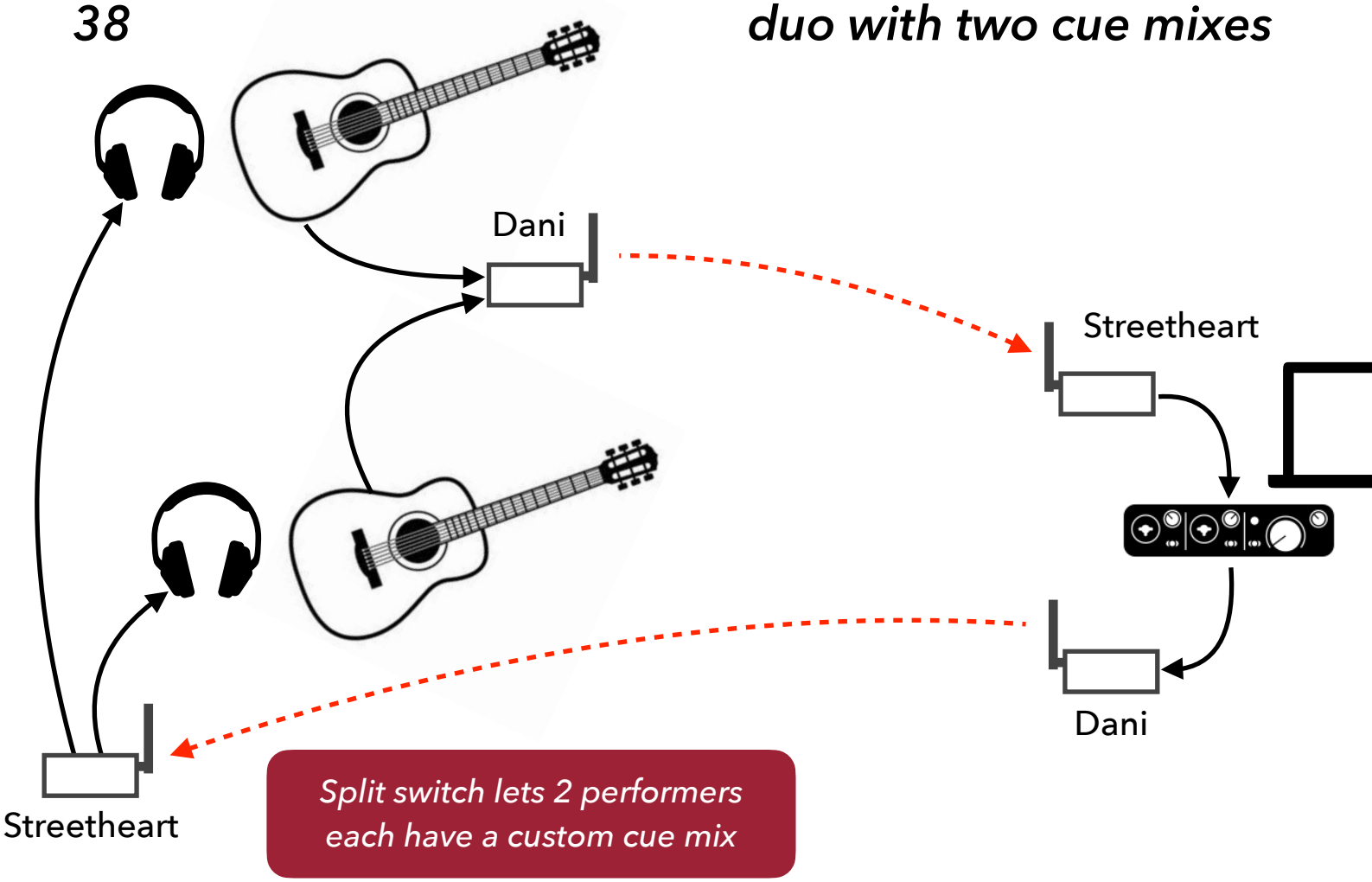

36 *just put those new monitors 'on credit'*



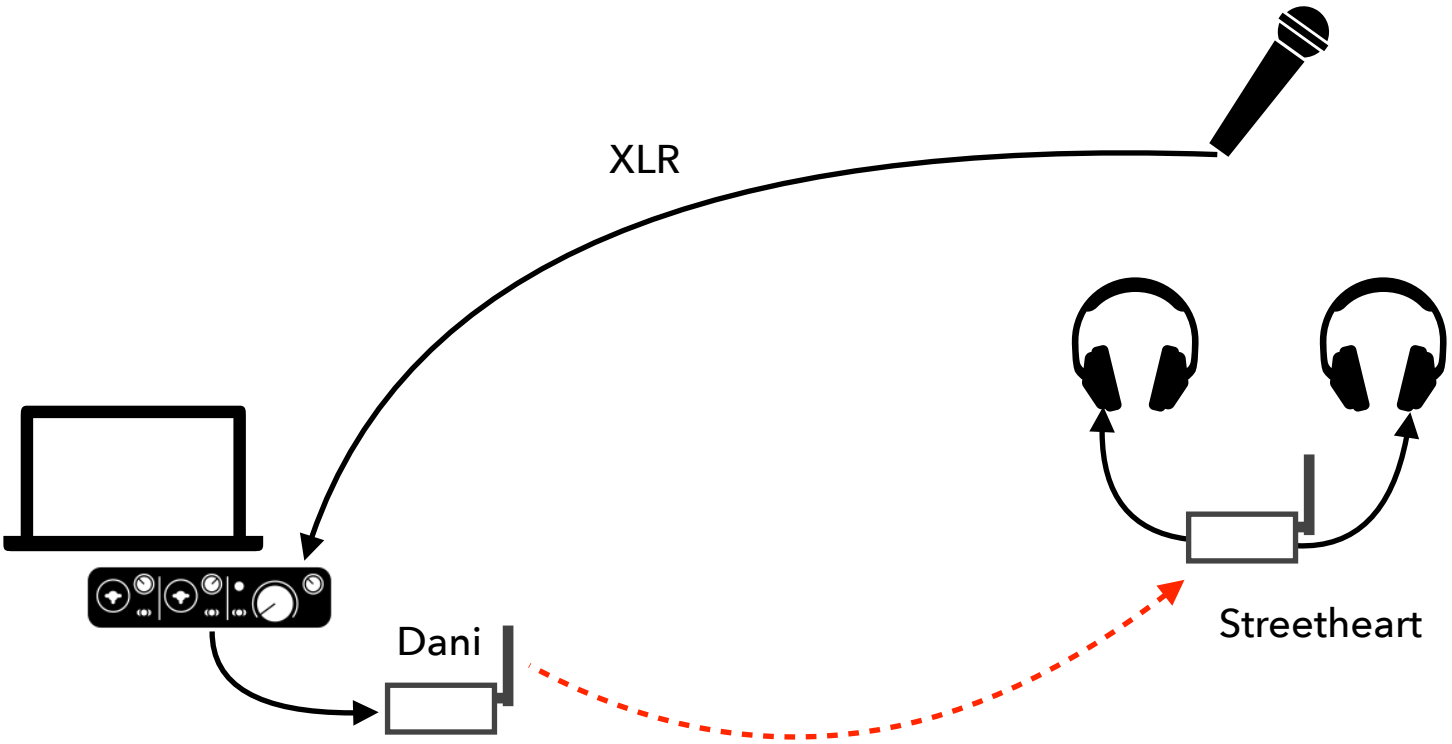
## 37 *recording duo in that vibey spot*



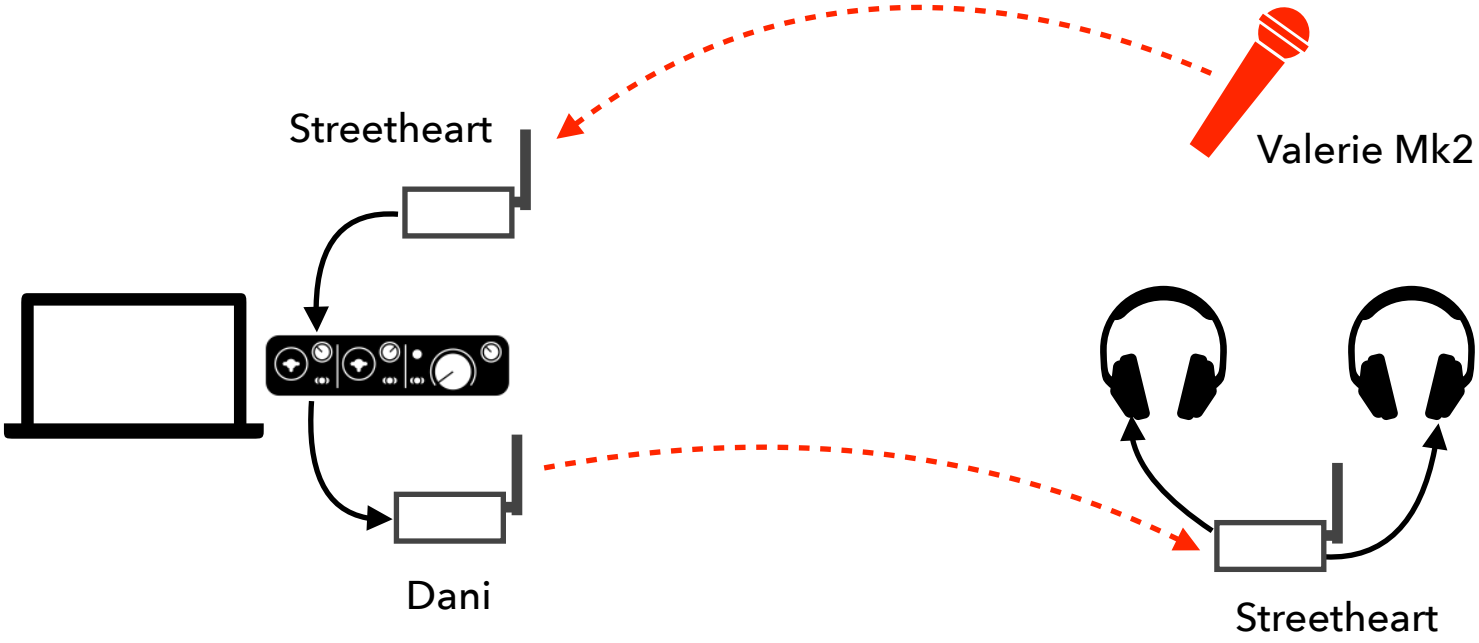

## 38 *duo with two cue mixes*



## 39 *gang vocals under the stairs*



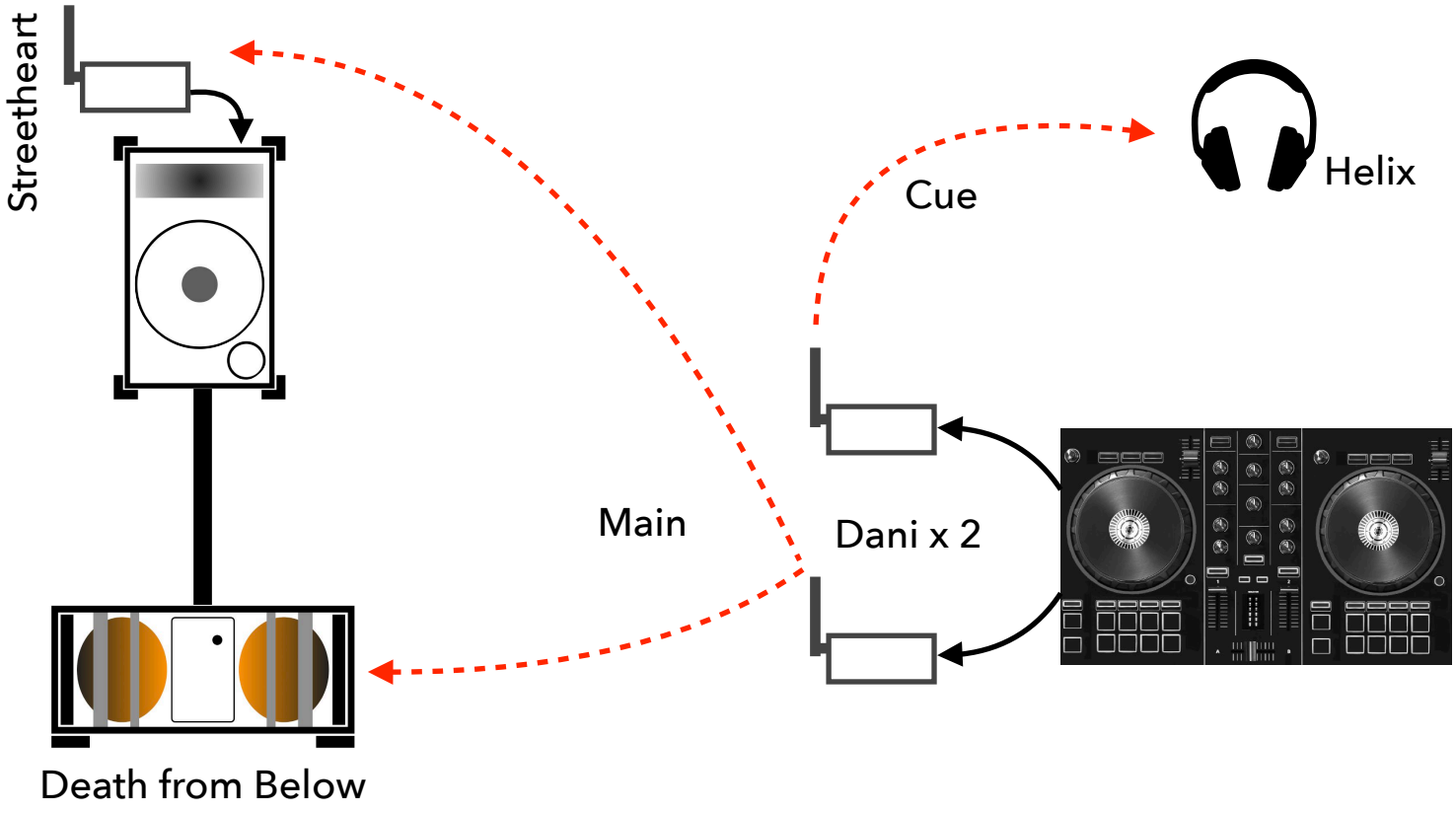

## 40 *gang vocals in a seedy alley*



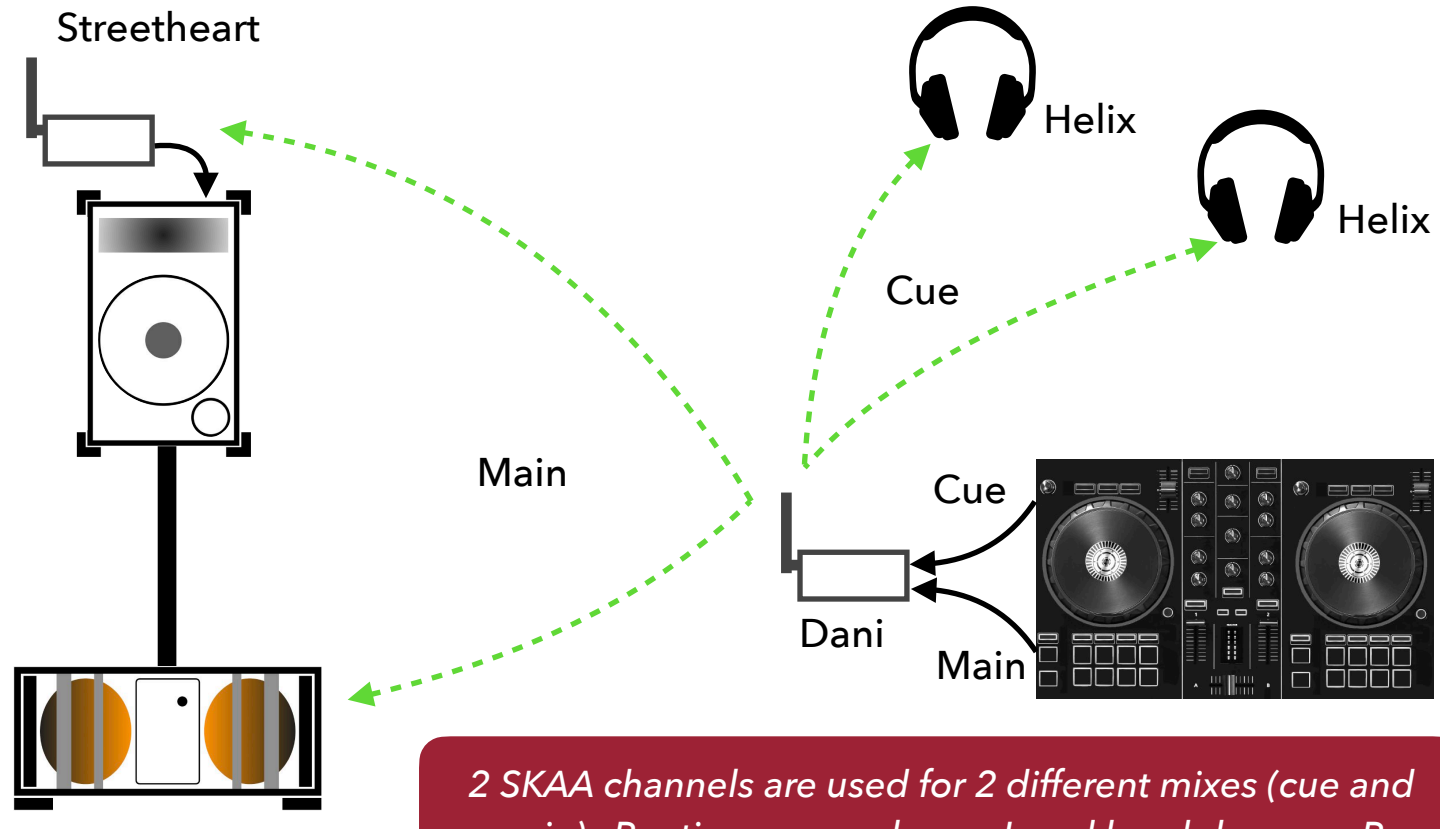
# PRO DJ

BILLINGER LABS

## 41 *pro wireless DJ setup*

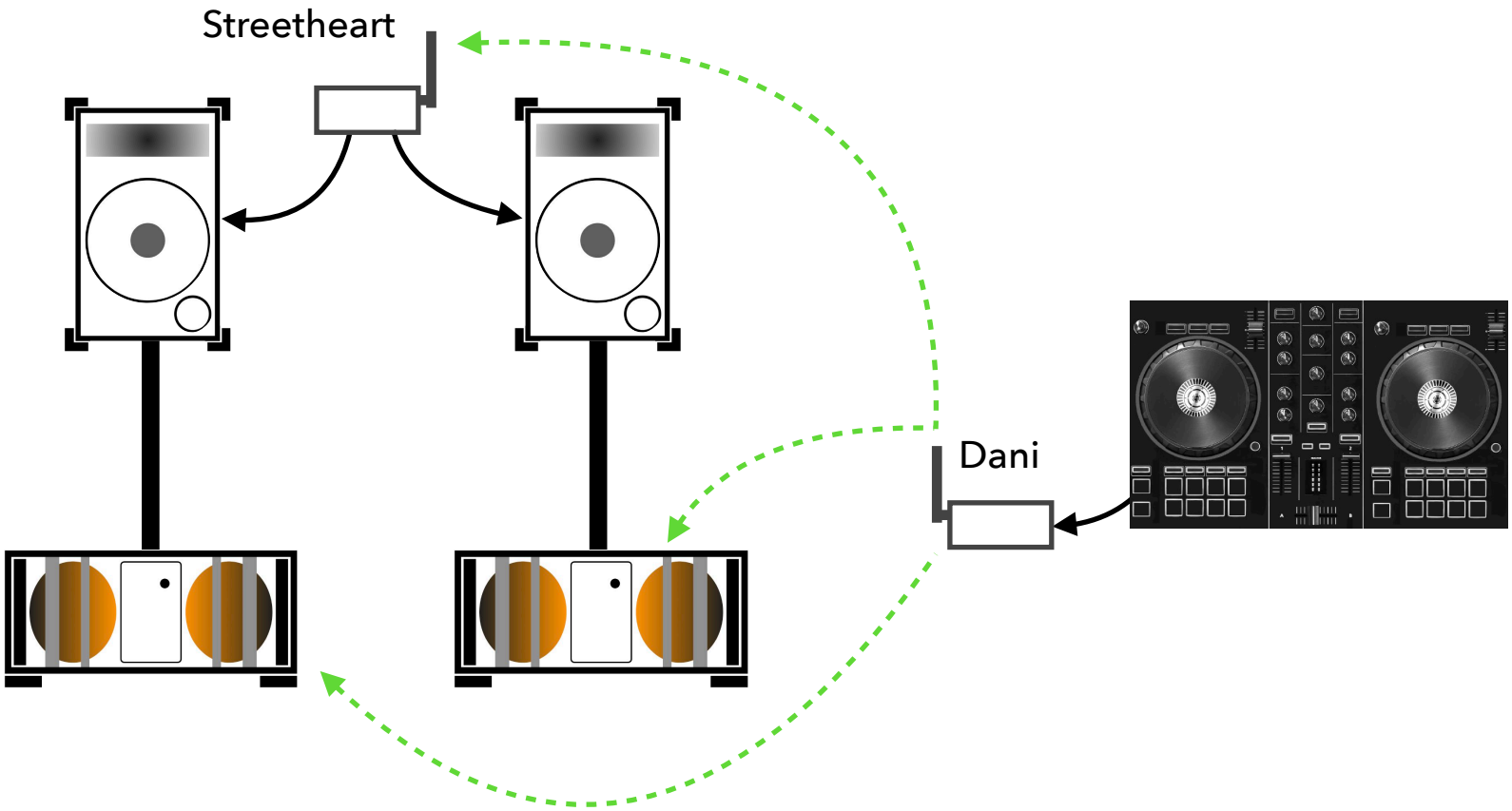



## 42 *dude, I brought my flash drive*

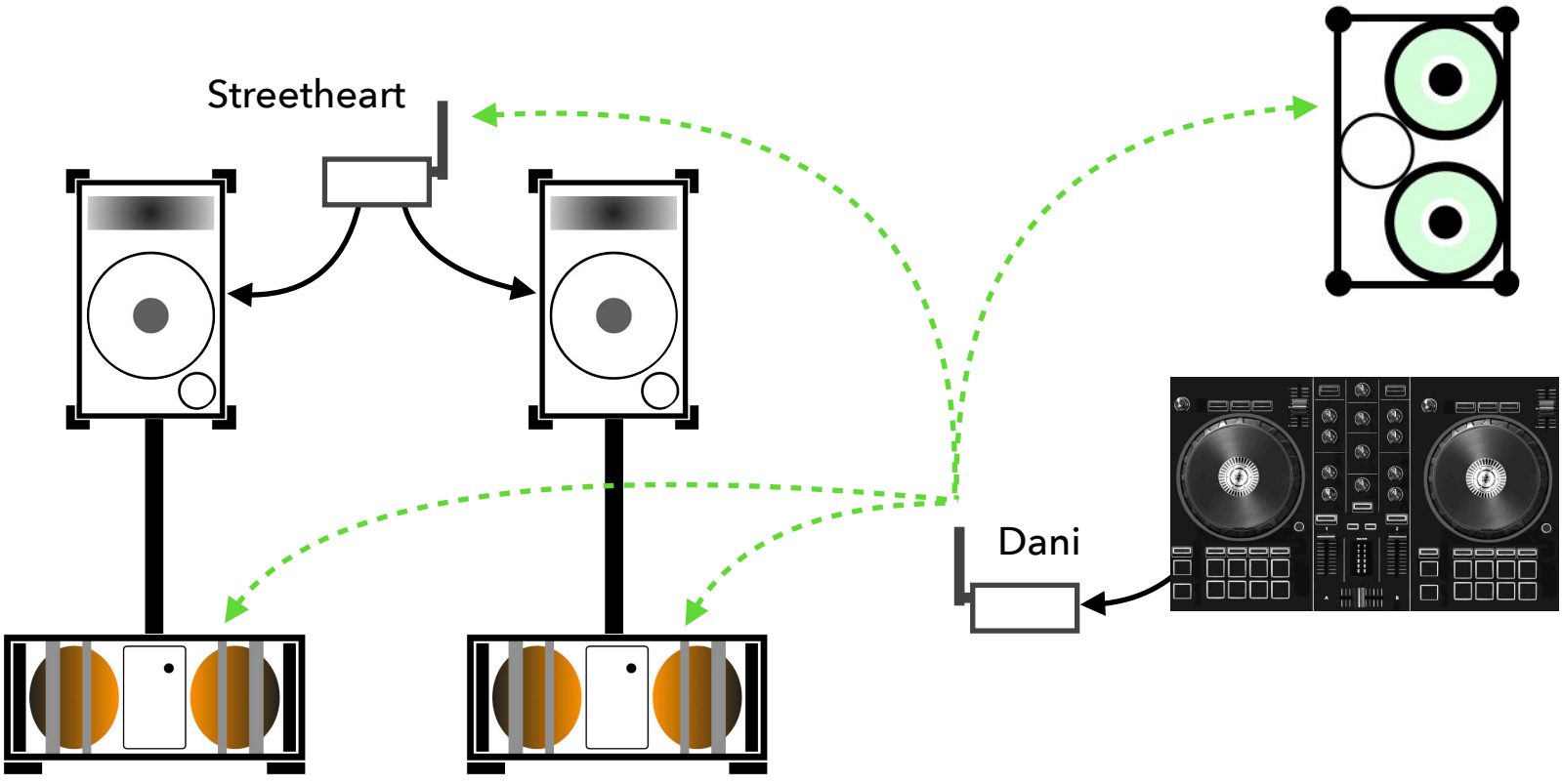


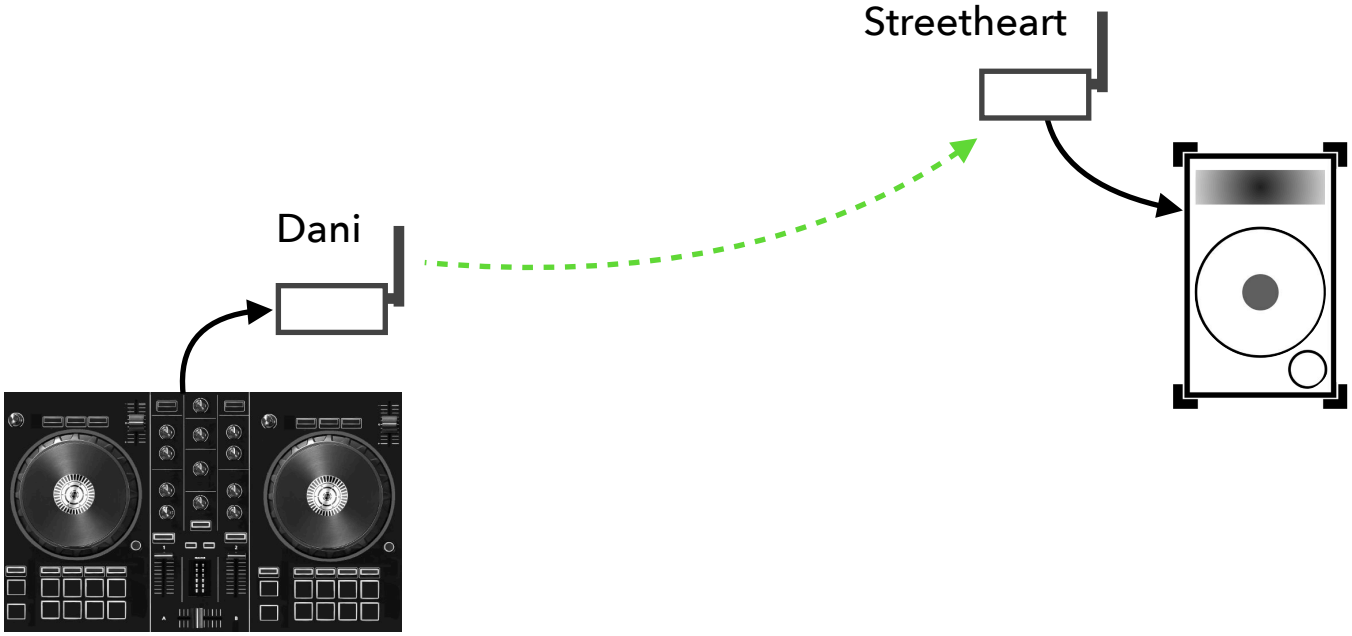

*2 SKAA channels are used for 2 different mixes (cue and main). Routing on speakers = L and headphones = R.*

## 43 *shaking the dance floor*




## 44 *add a booth monitor!*




Streetheart
Dani

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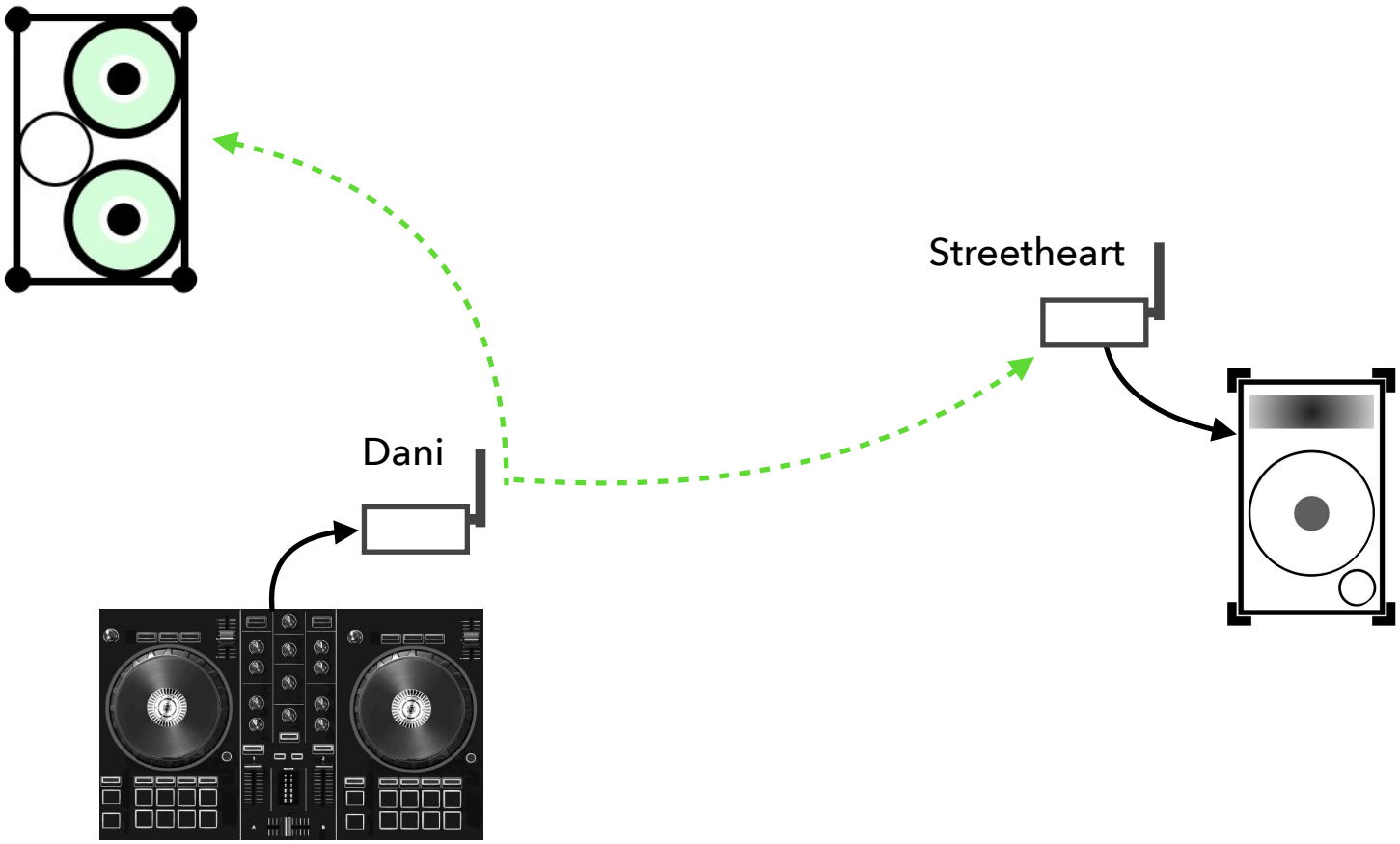
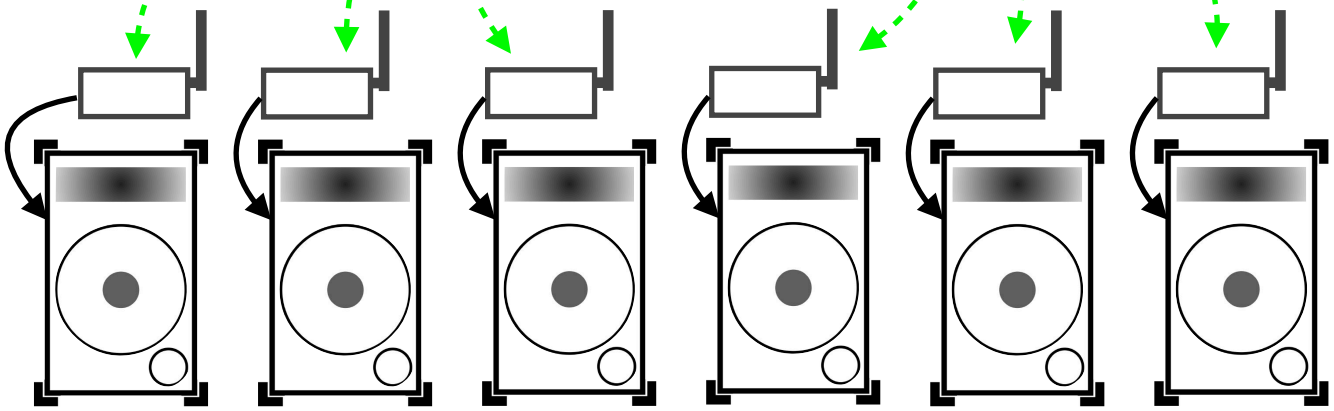

Streetheart
Dani

## insane coverage

*You might not need 6 Streethearts. If two of these speakers are in the same room you can run them both from 1 Streetheart!*

Streethearts x6

Dani Dani

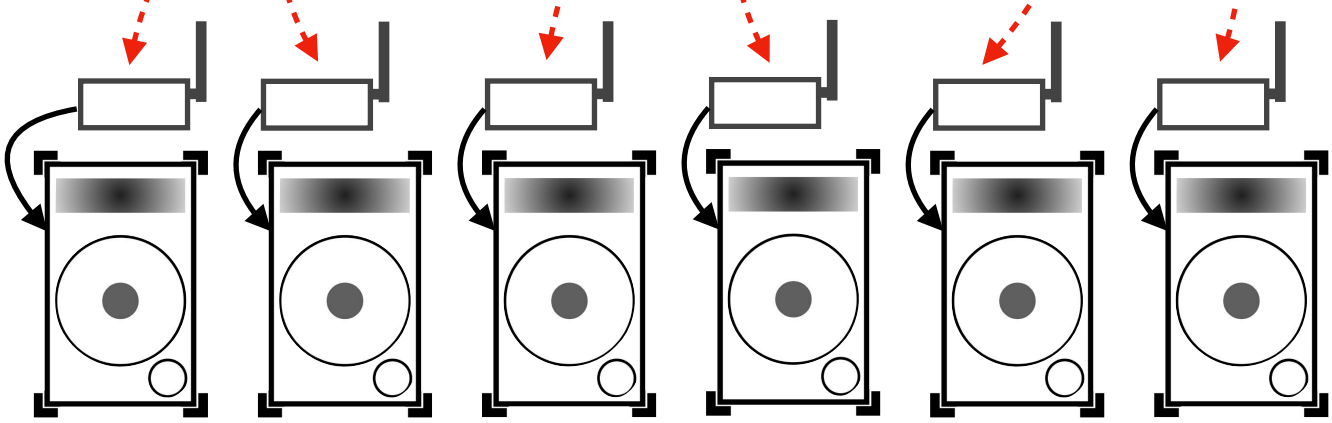




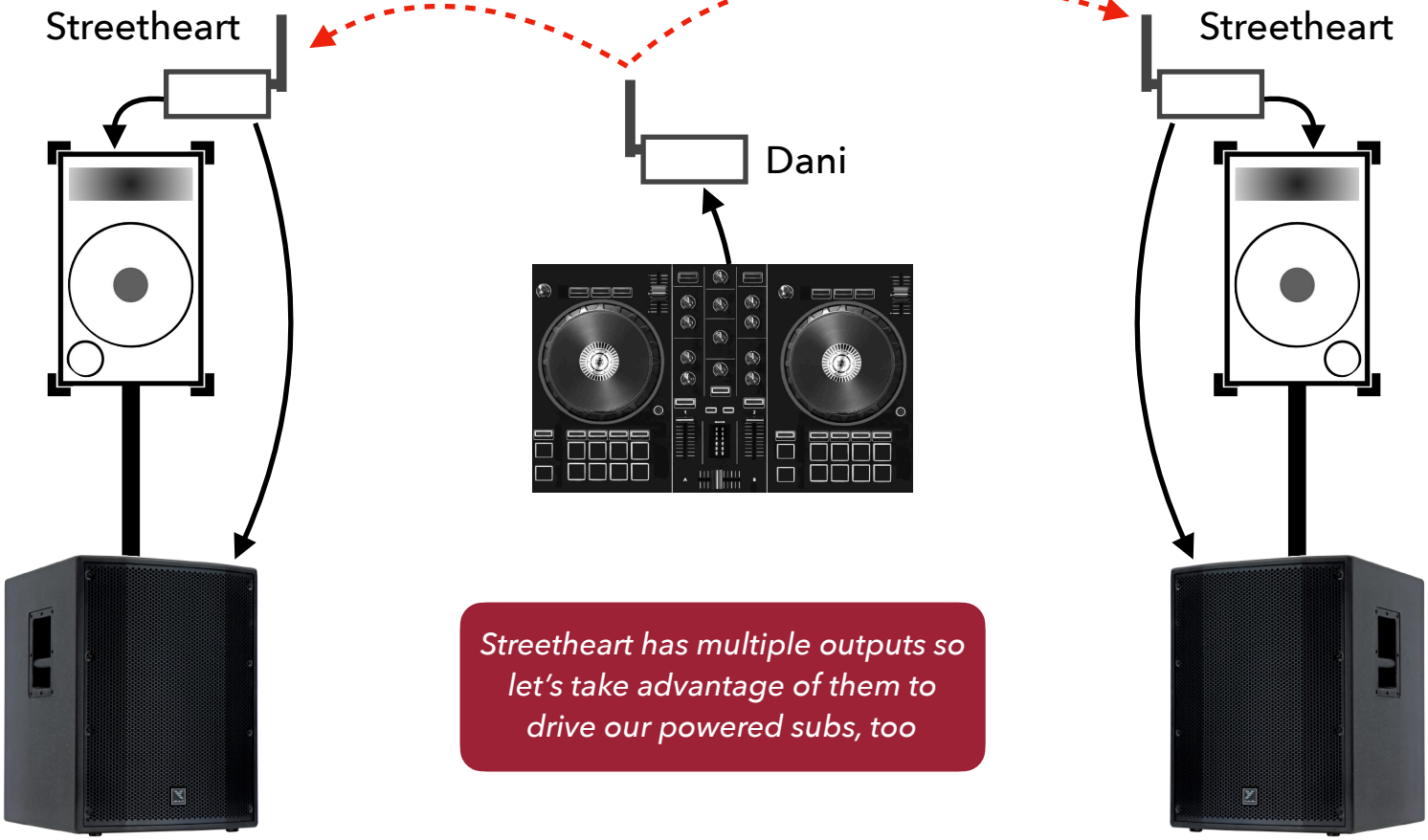
## pro latency insane coverage

Dani Dani Dani

Streethearts x6

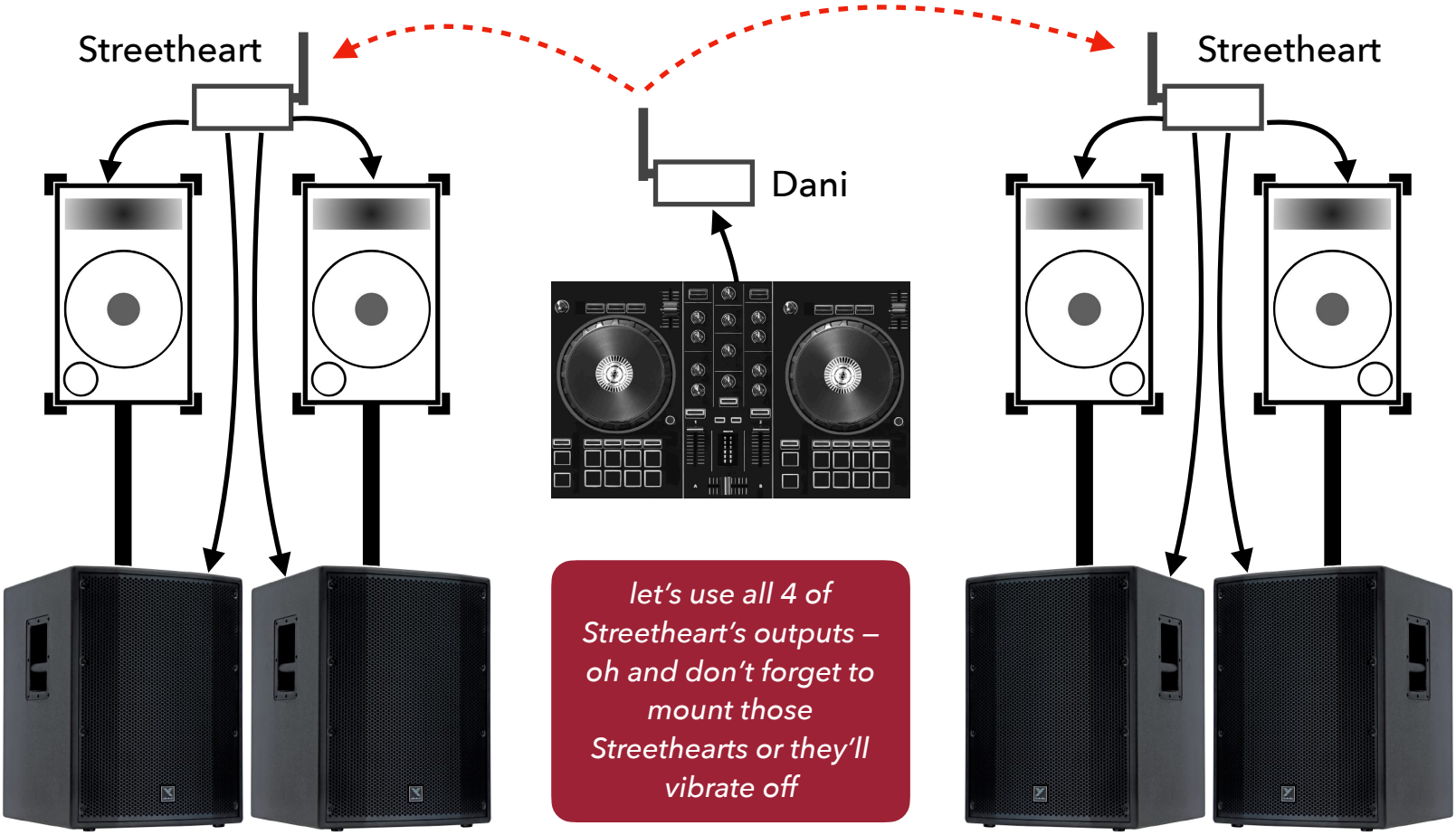


## 49 stacks




*Streetheart has multiple outputs so let's take advantage of them to drive our powered subs, too*

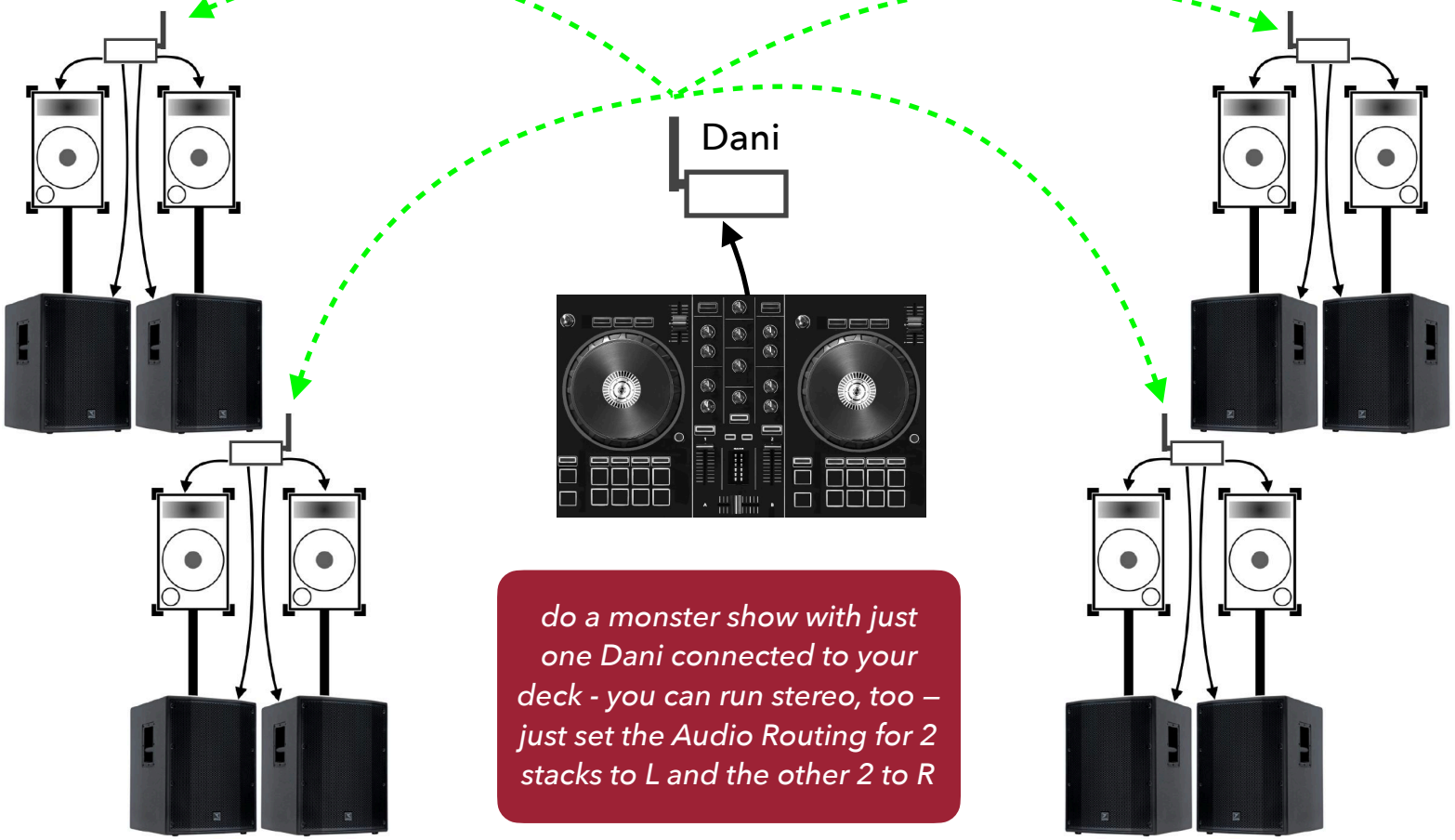
## 50 stacks II




*let's use all 4 of Streetheart's outputs – oh and don't forget to mount those Streethearts or they'll vibrate off*

## 51

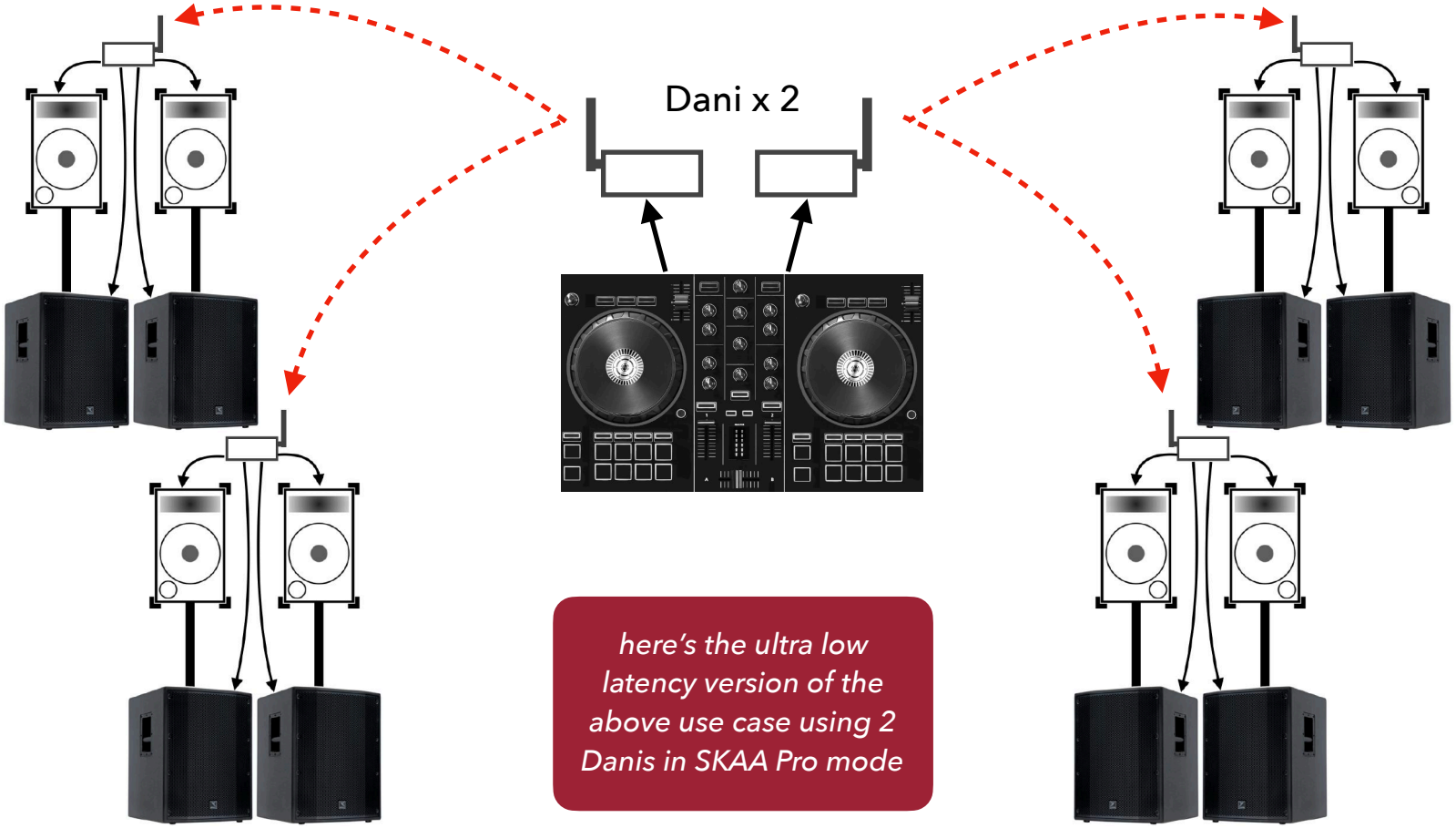
## stacks III




*do a monster show with just one Dani connected to your deck - you can run stereo, too – just set the Audio Routing for 2 stacks to L and the other 2 to R*

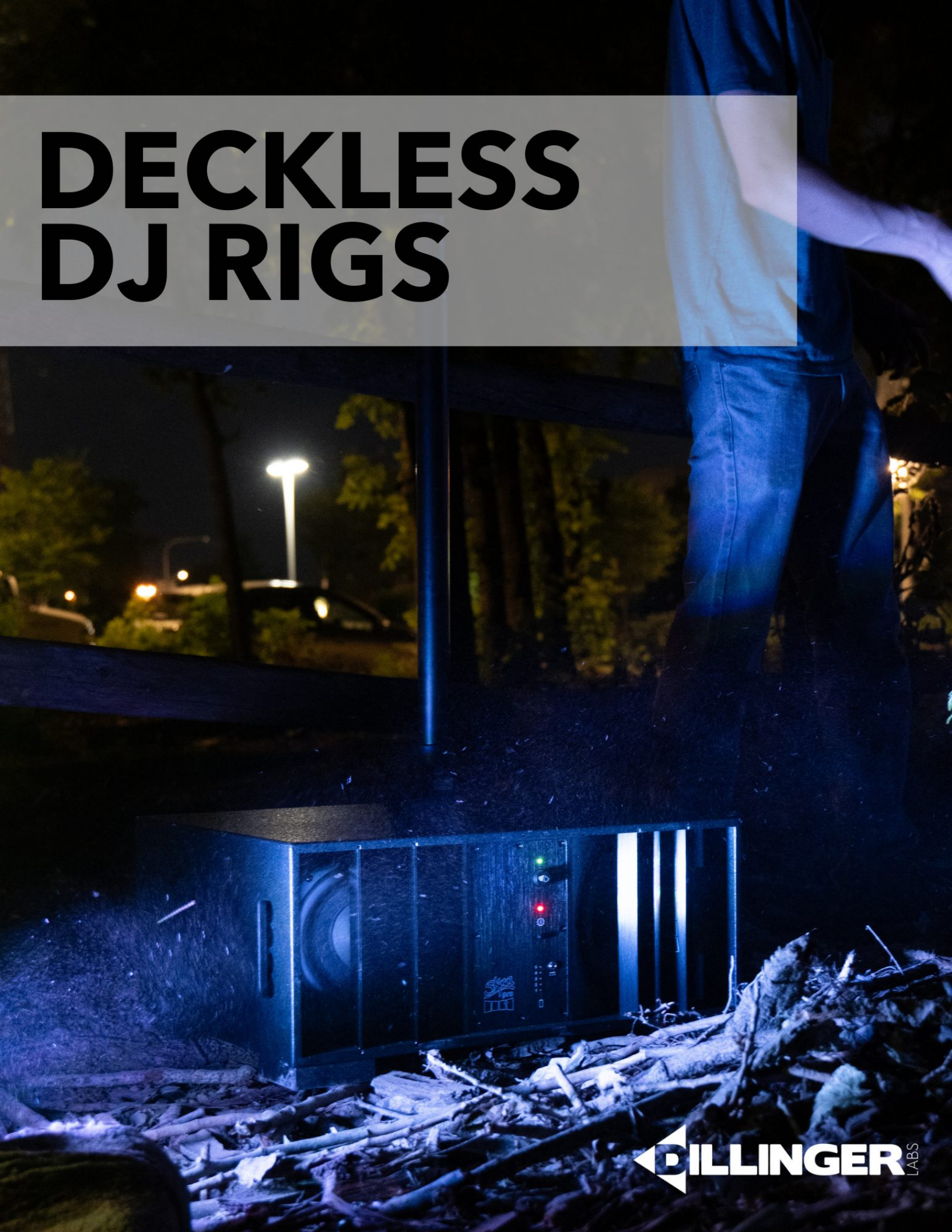
## 52

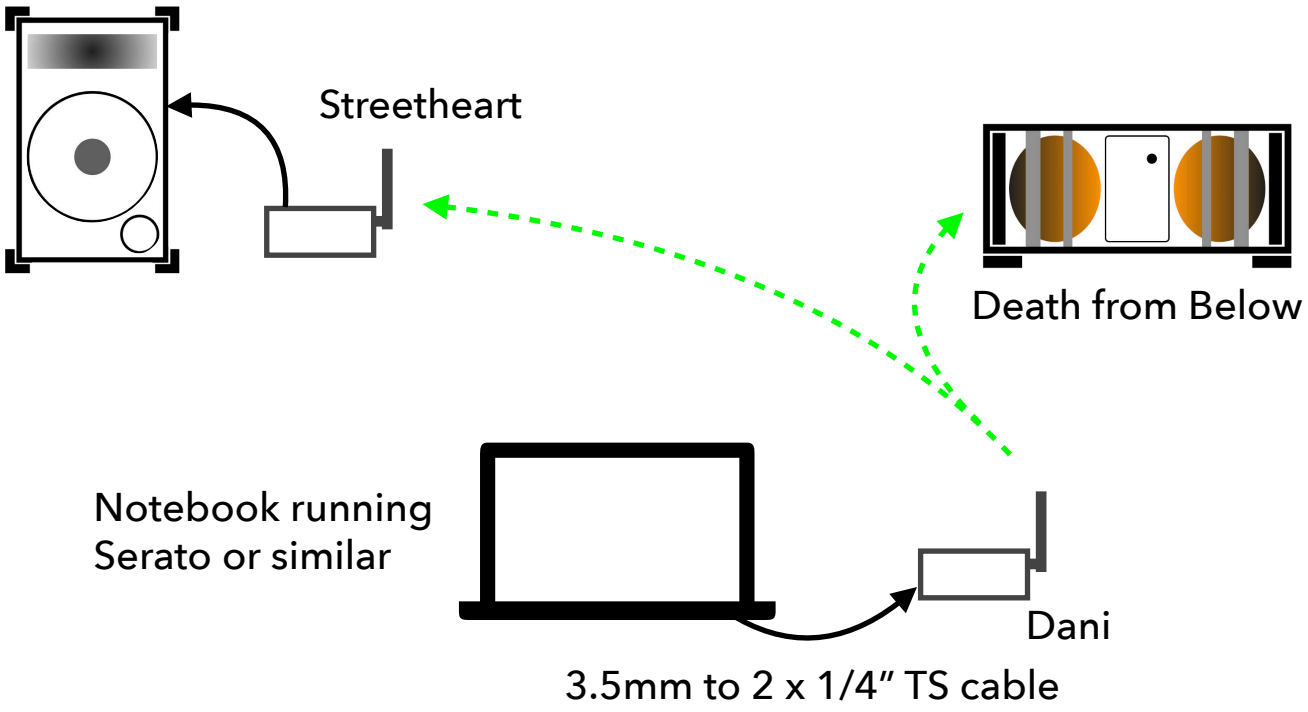
## stacks IV



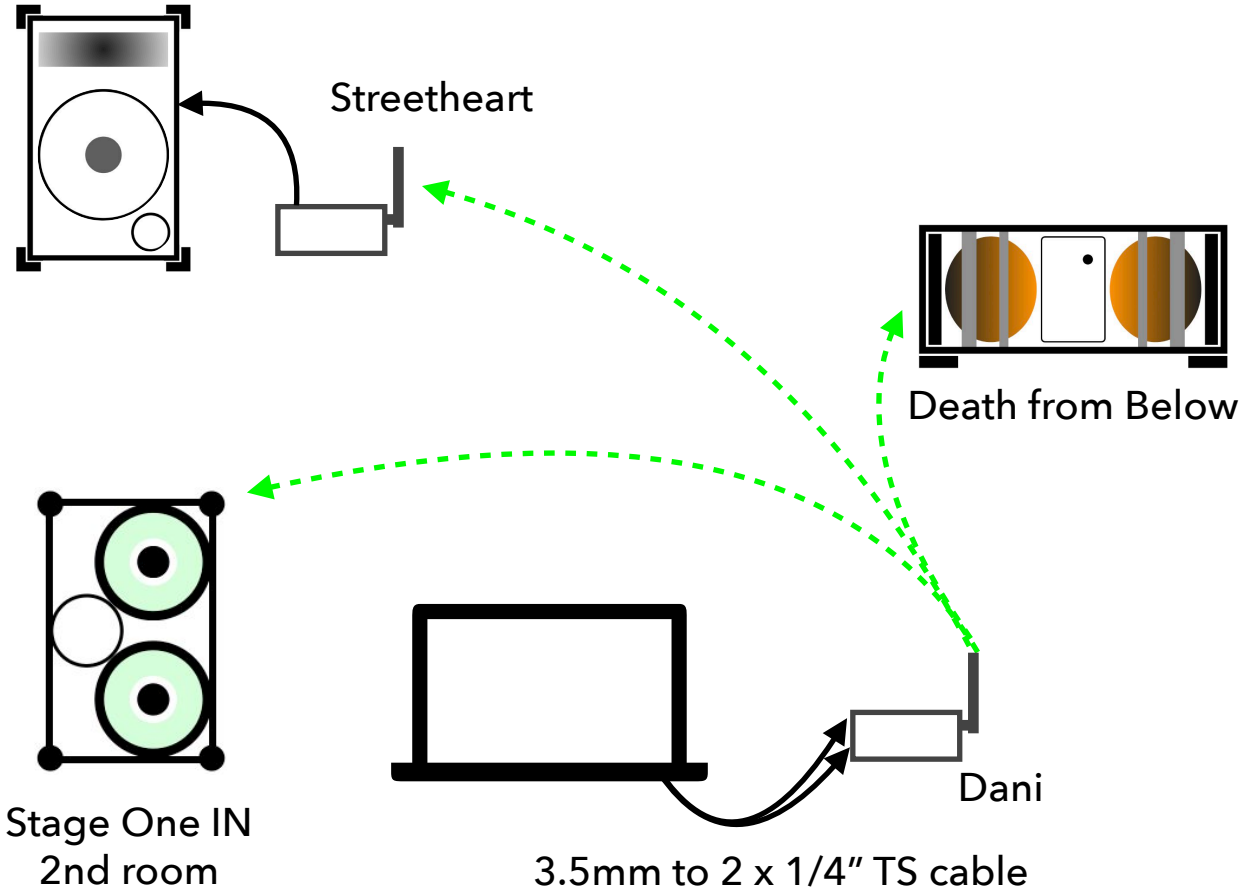

*here's the ultra low latency version of the above use case using 2 Danis in SKAA Pro mode*

# DECKLESS DJ RIGS

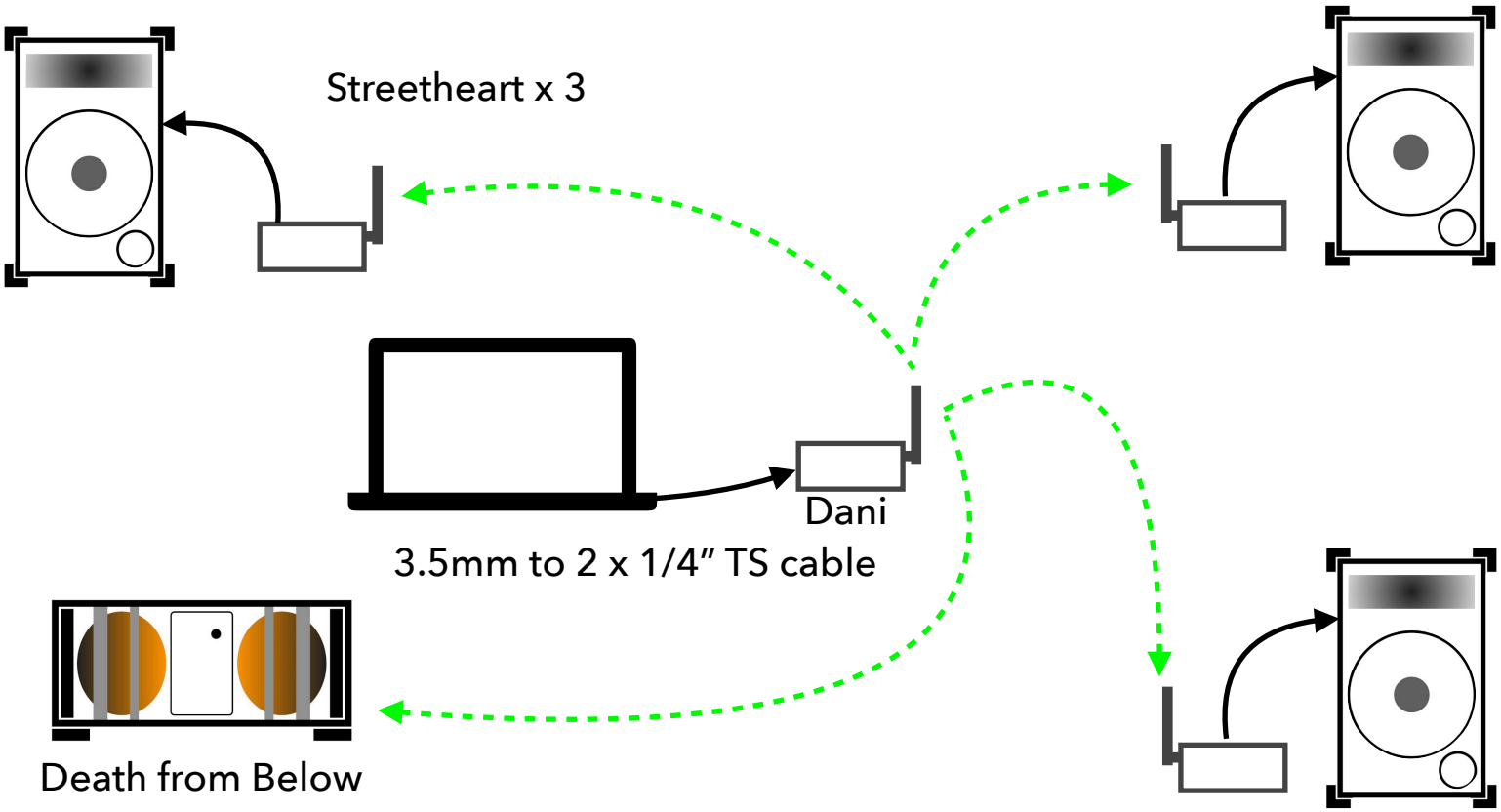




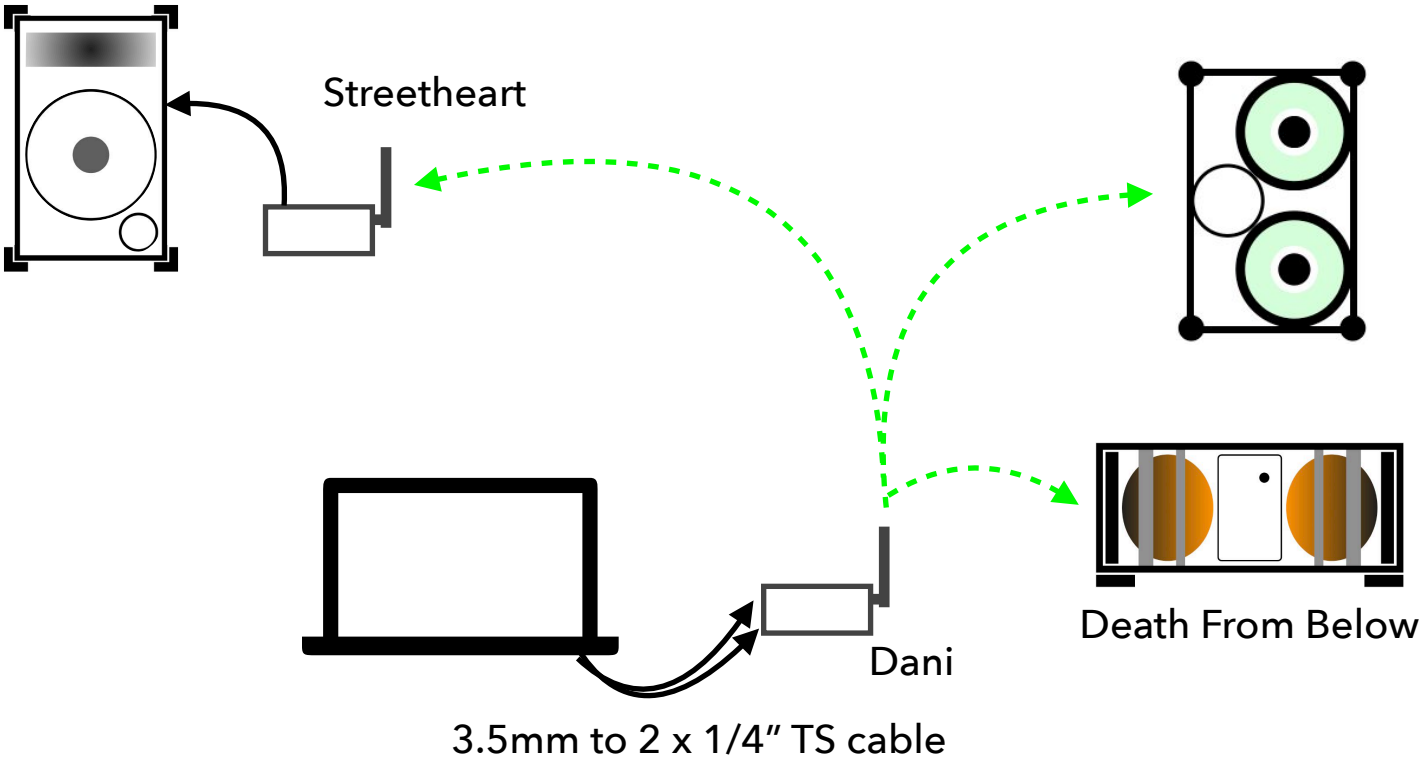

## 54 *add a 2nd room*



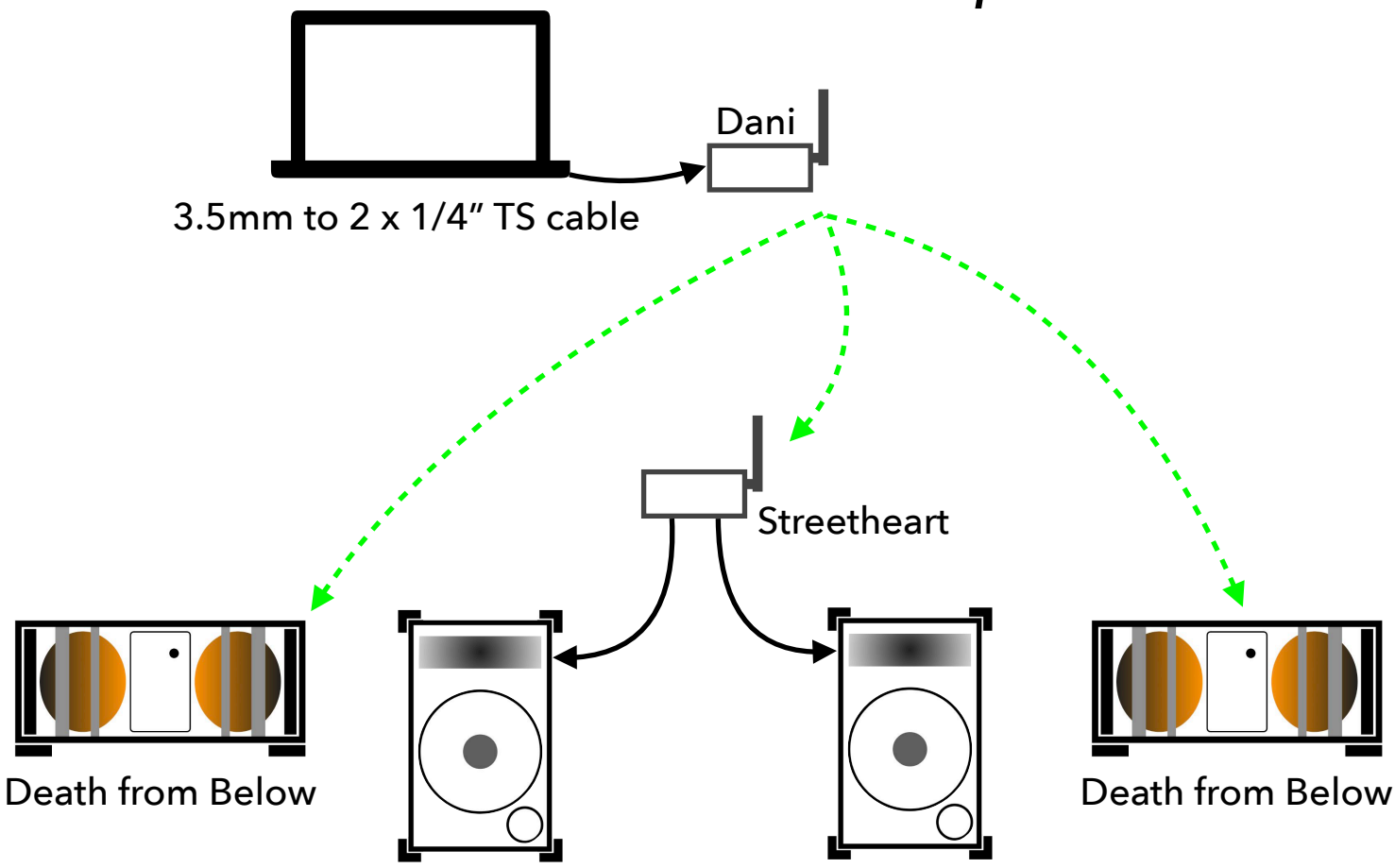
## 55 *fill a wedding venue without running cables…*



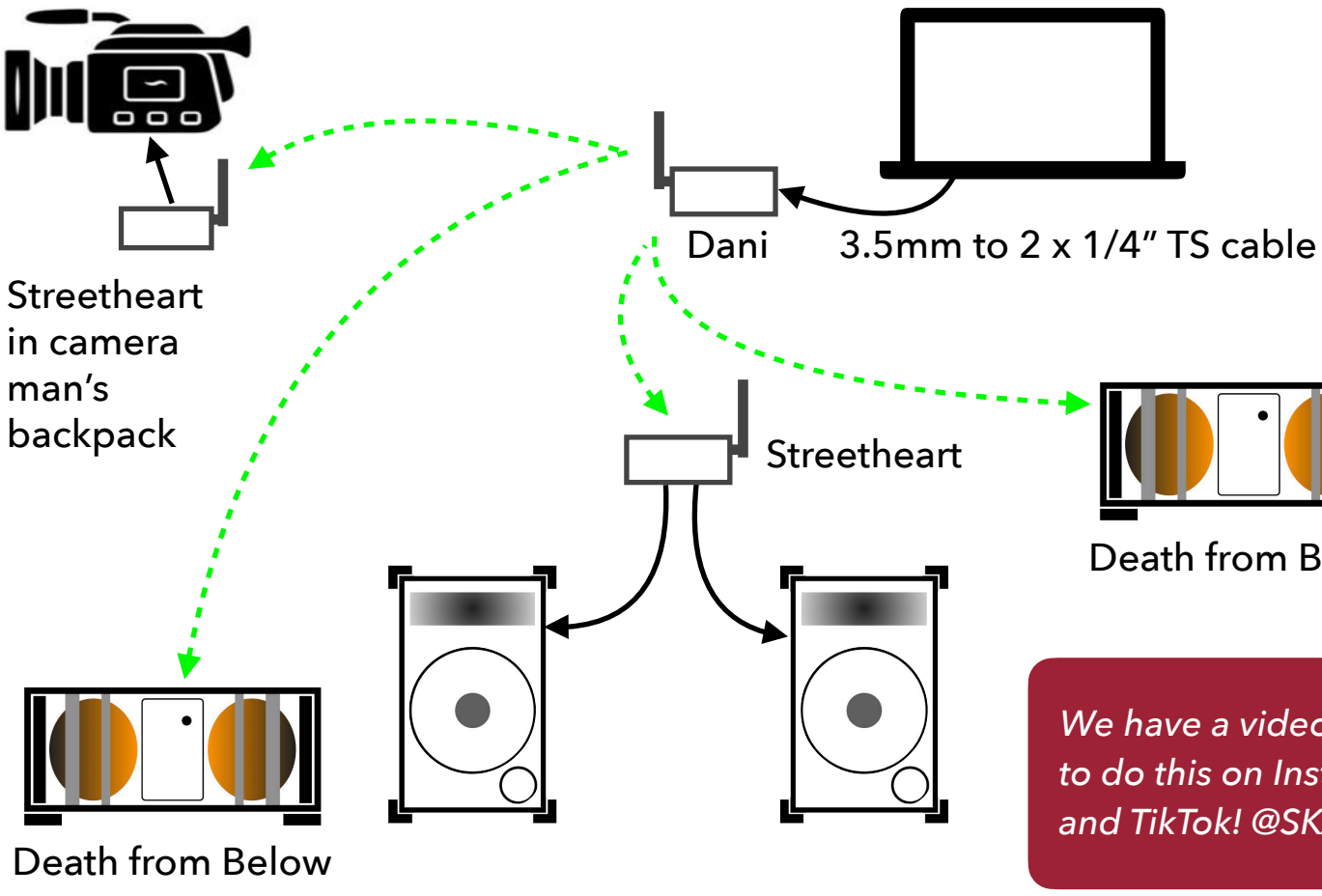

## 56 *…or add a Soundboks to fill the extra room*



## 57 *stereo tops and bottoms*



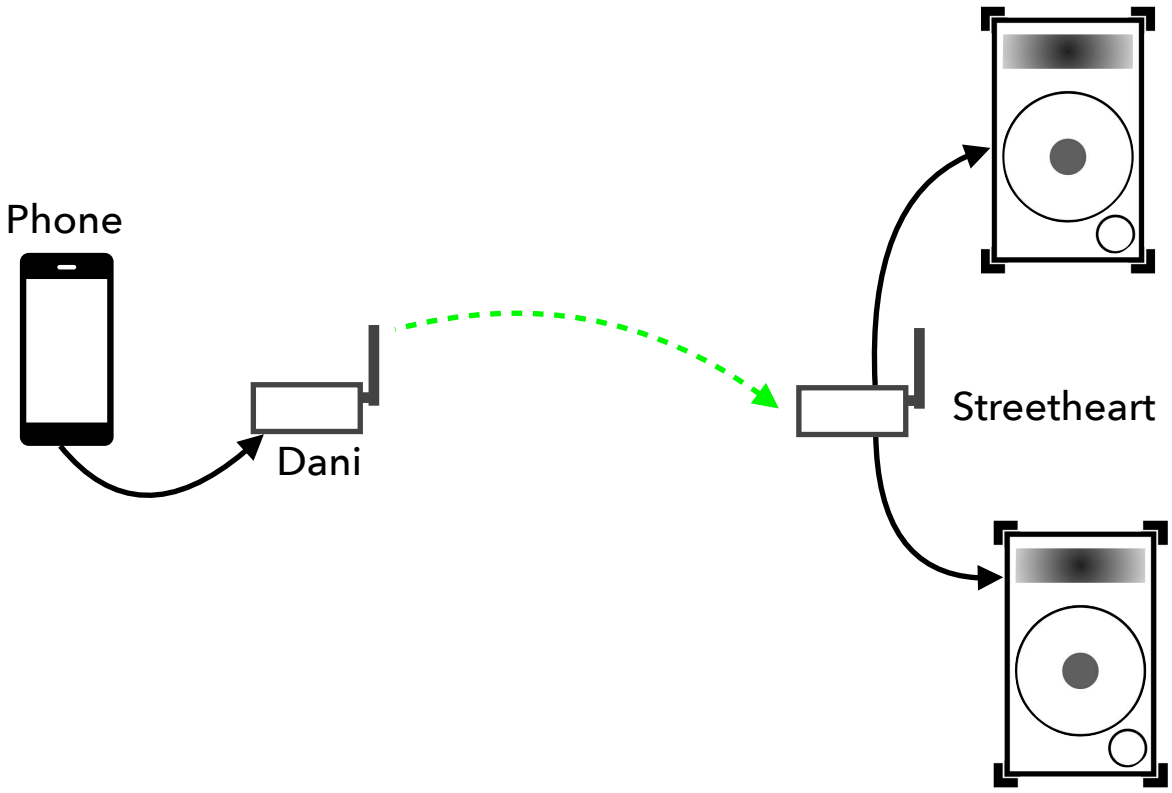

## 58 *send audio to your wedding videographer*




*We have a video on how to do this on Instagram and TikTok! @SKAAsound*

# HOME


DILLINGER LABS


Phone
Dani
Streetheart

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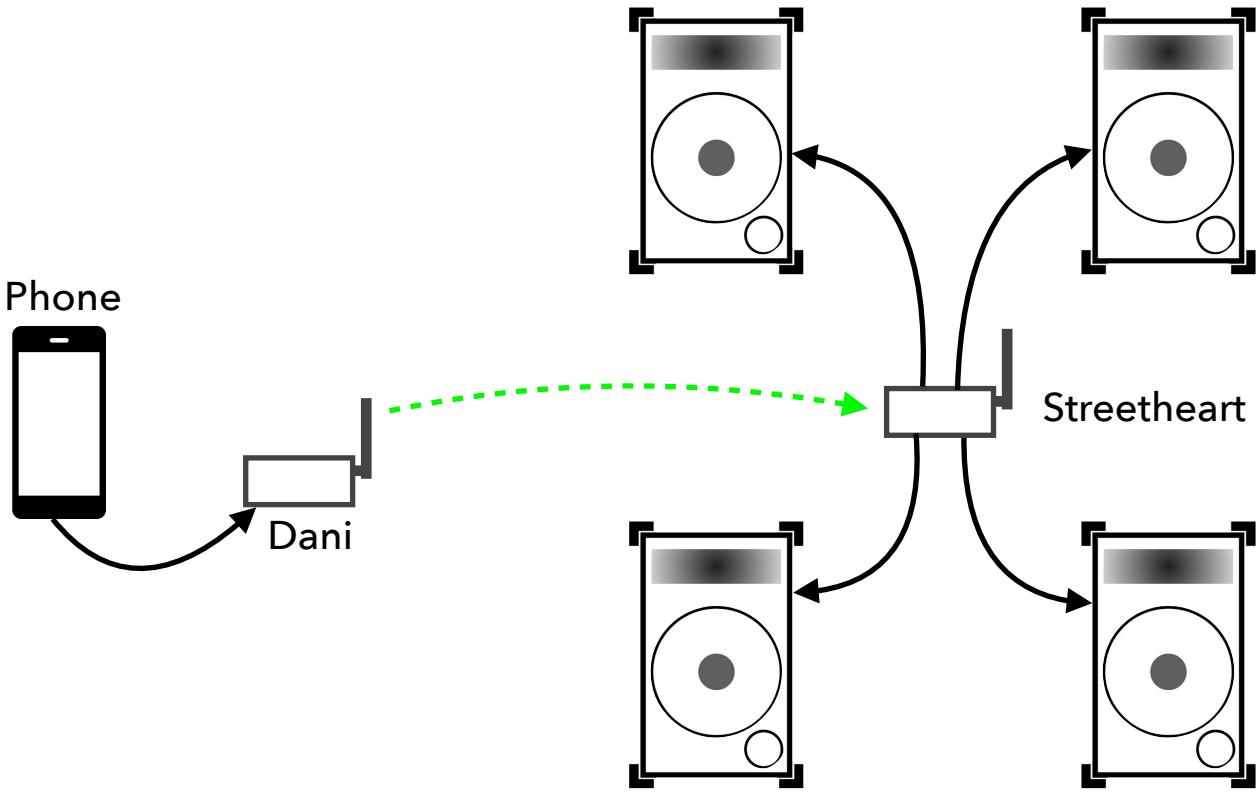
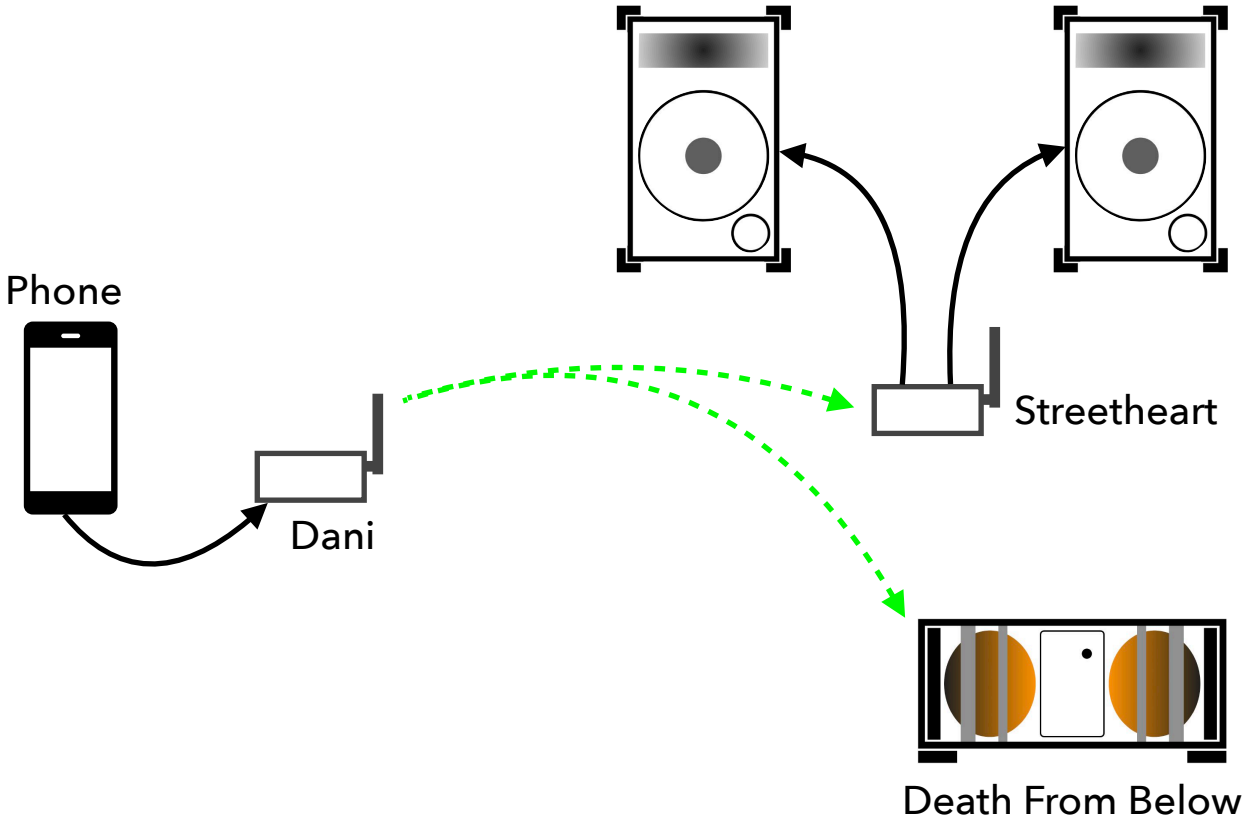
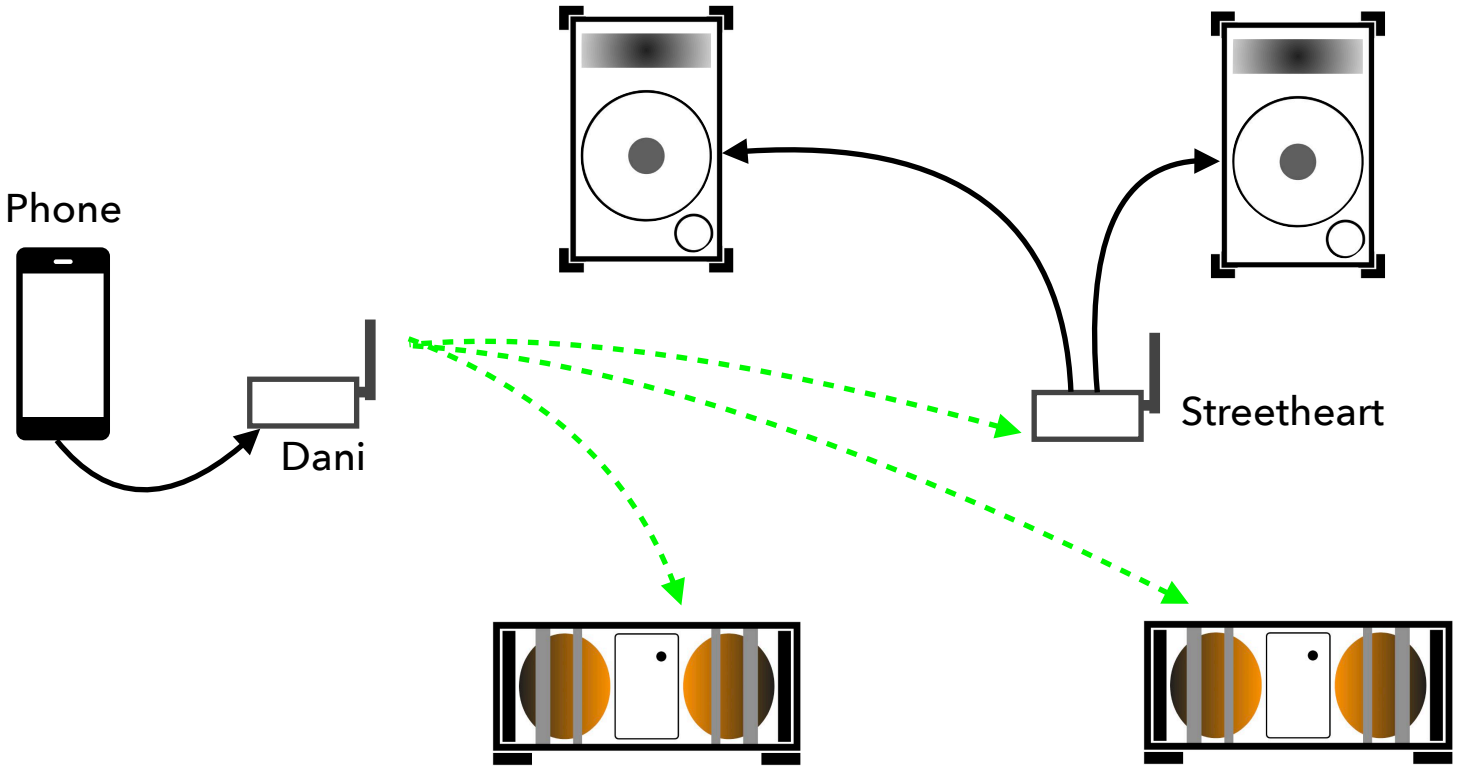

Phone
Dani
Streetheart

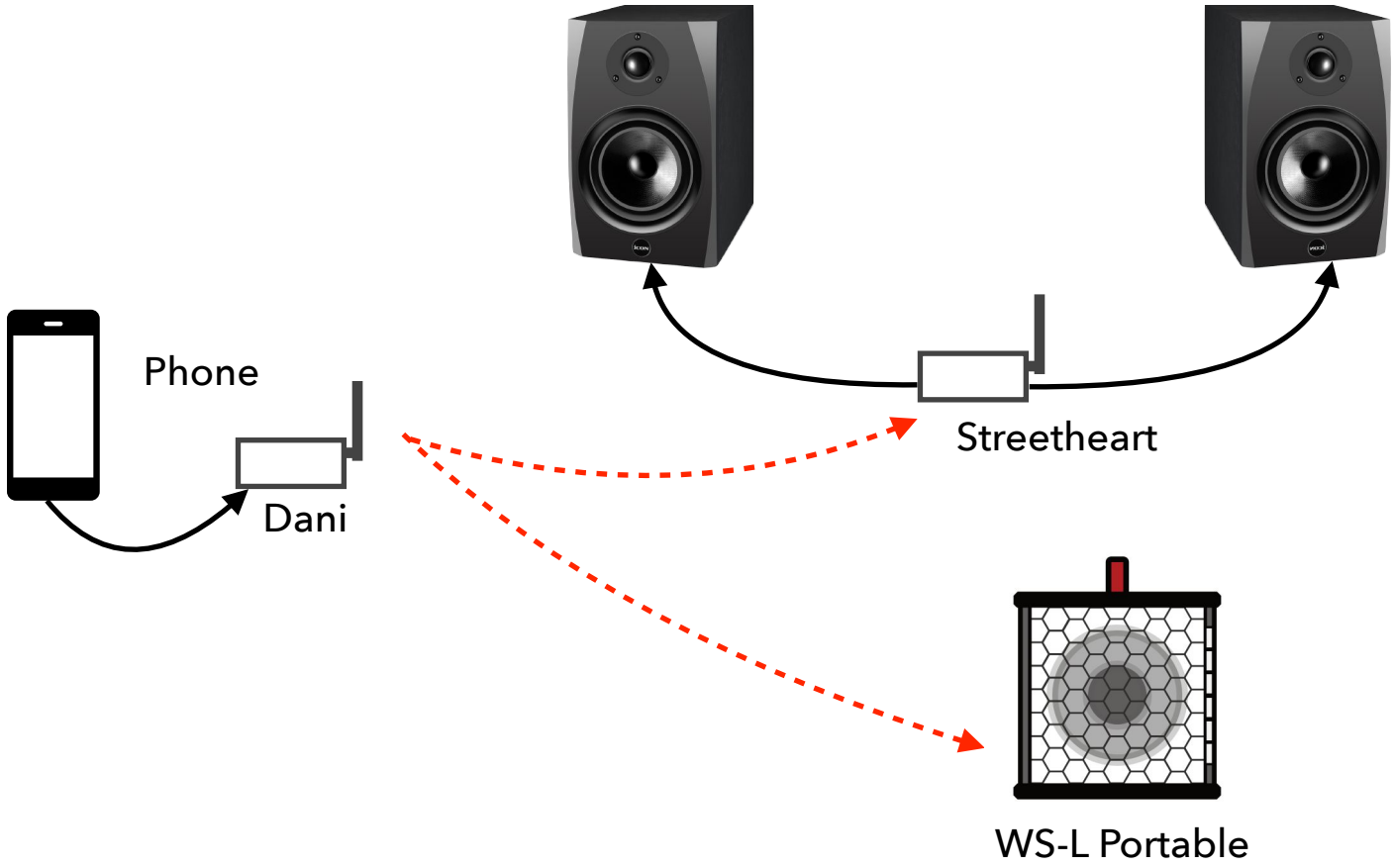
## 61 *mo bass goo*



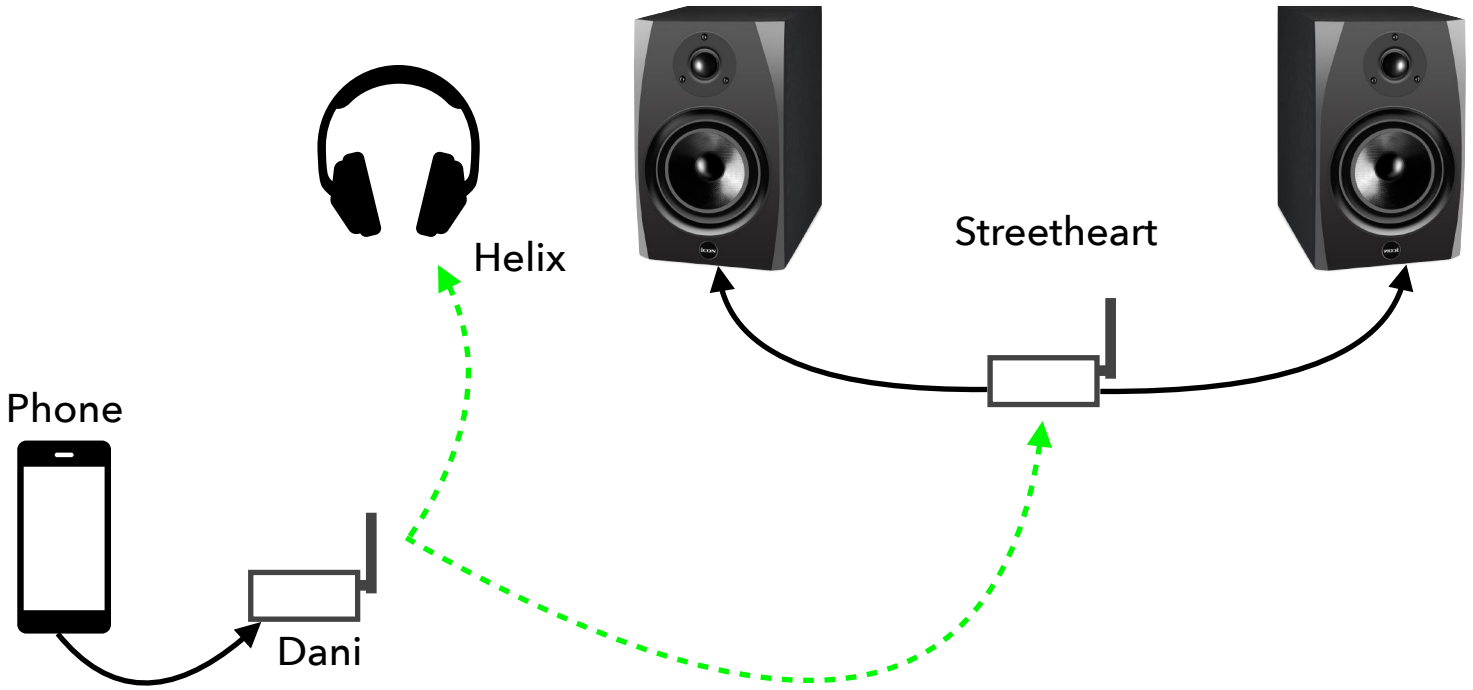

## 62 *stereo subs because we can*



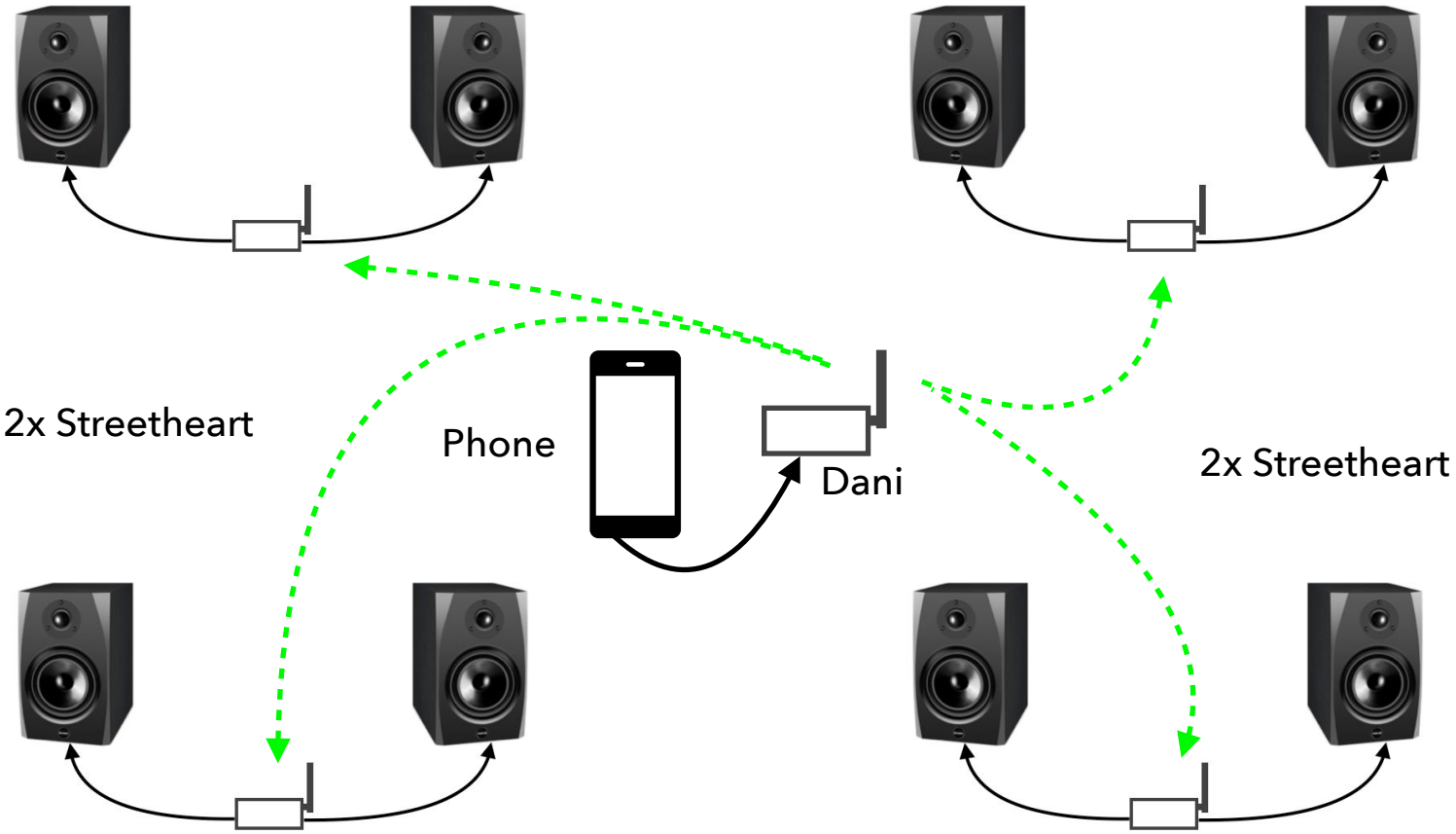
## 63 *inside and on the patio*



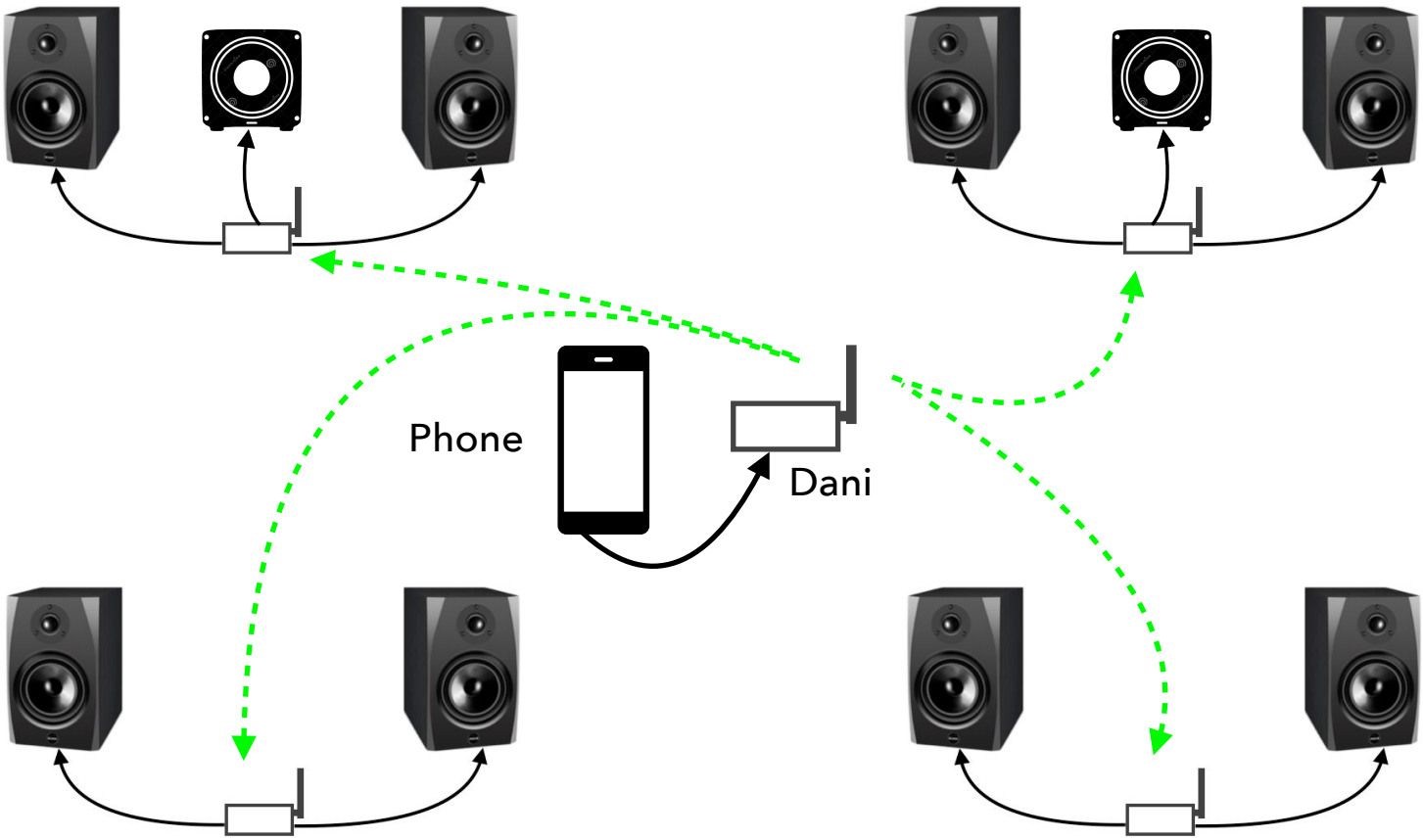

## 64 *run speakers and headphones*



## 65 *rock 4 different rooms at a party…*

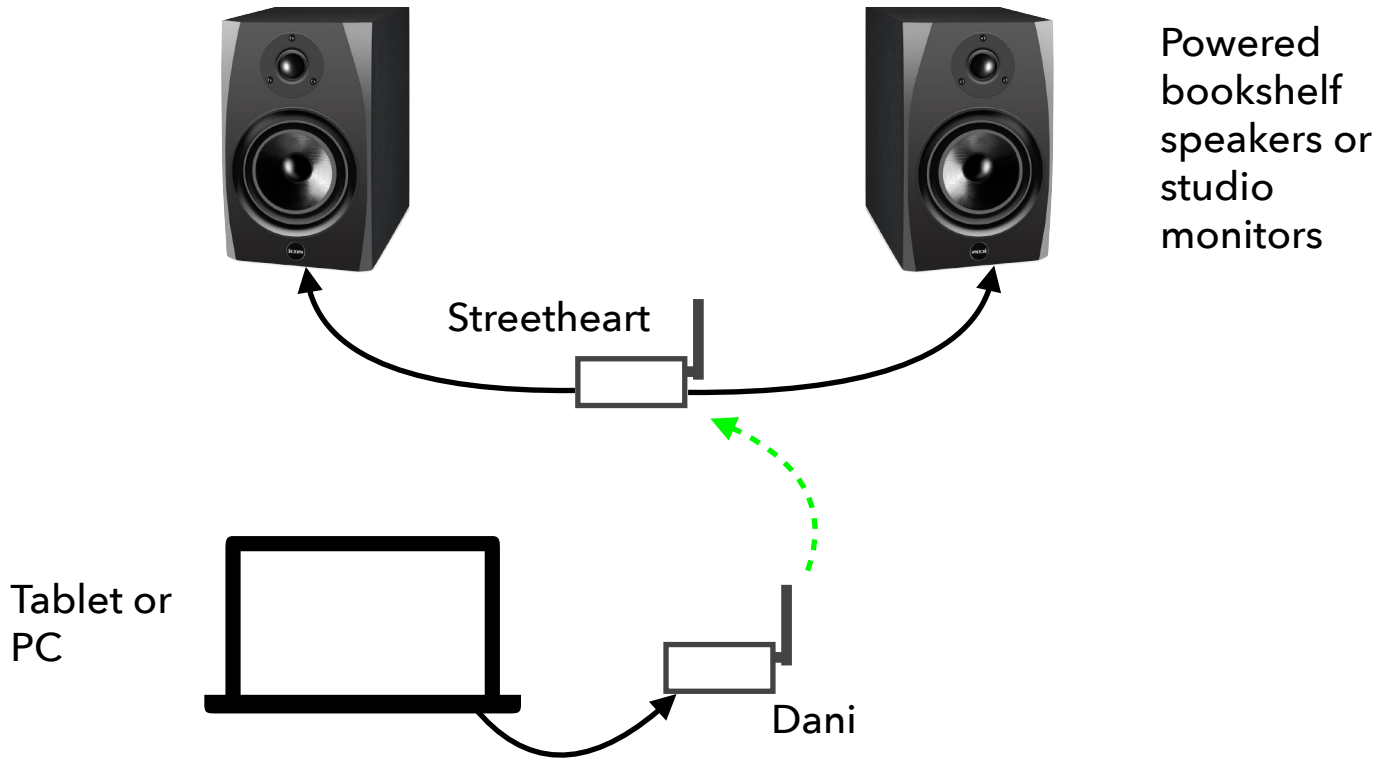



## 66 *add subs for the harder-partying rooms*

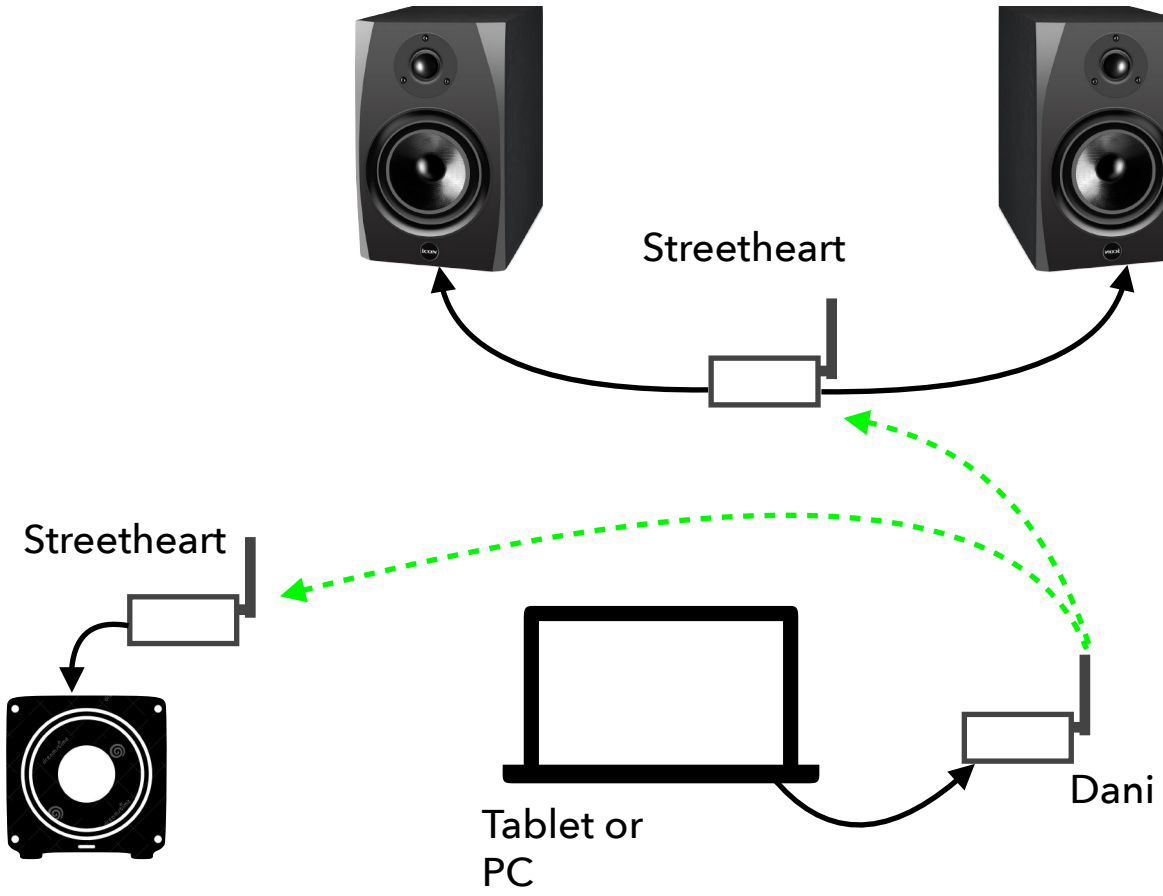


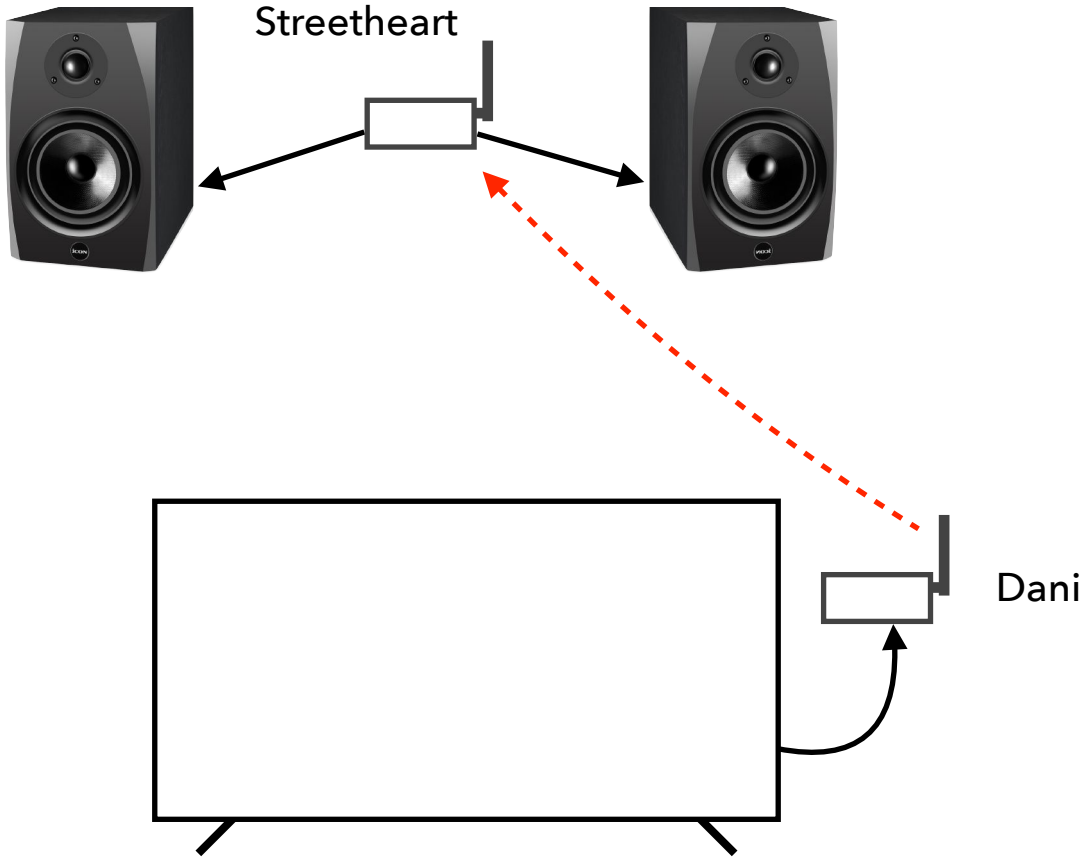
# GAMING & TV

BILLINGER LABS

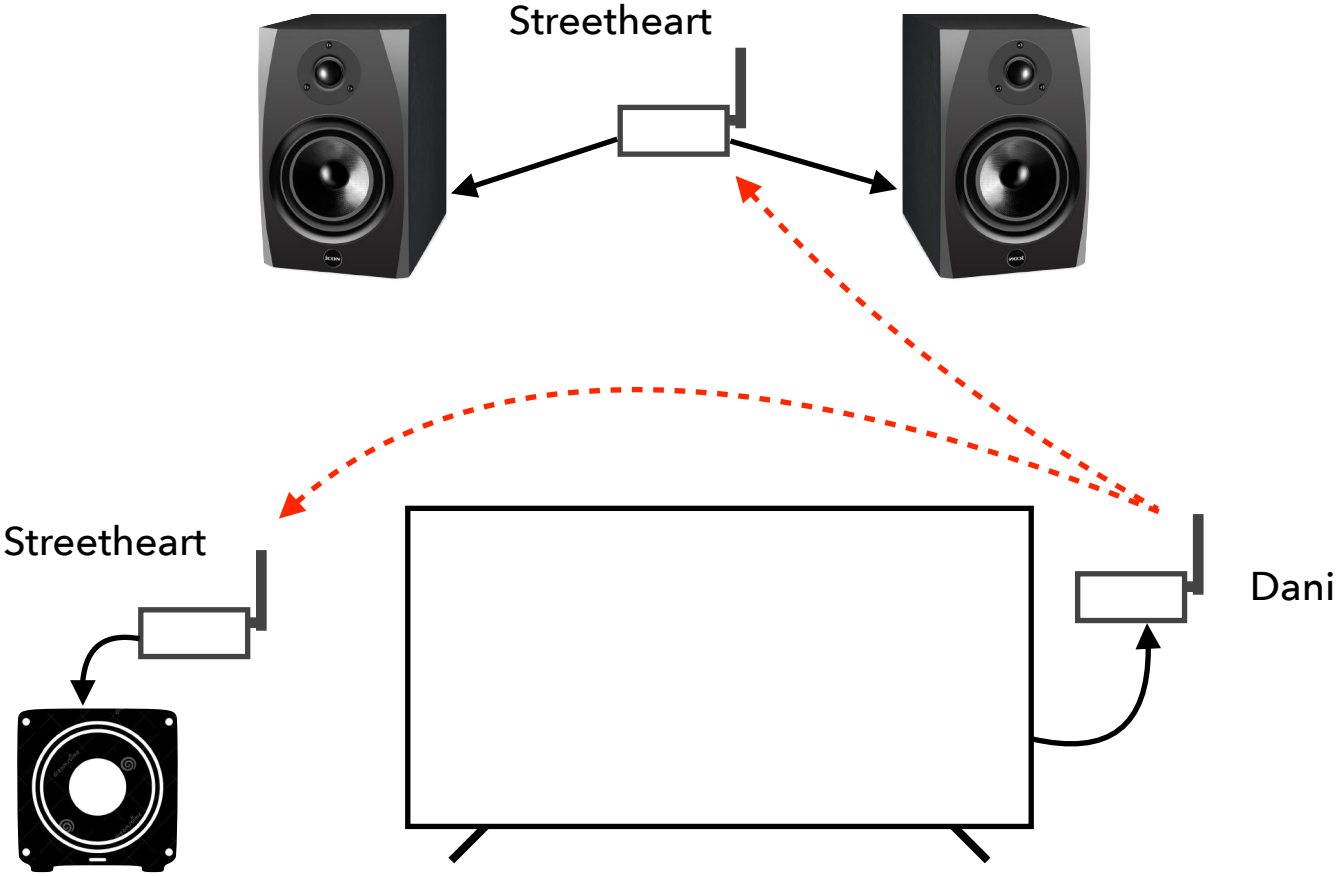

Powered bookshelf speakers or studio monitors
Streetheart
Tablet or PC
Dani




Streetheart
Streetheart
Tablet or PC
Dani

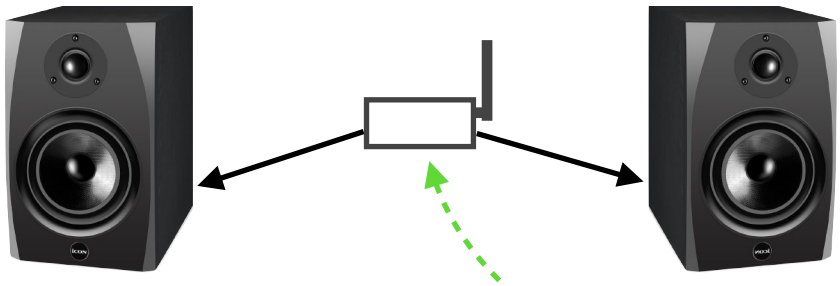

Streetheart
Dani




Streetheart
Streetheart
Dani

71

## Game On 1



*headphones like Helix can be great for night time, or if I need to step outside to flip the steak, or if grandpa can't quite hear*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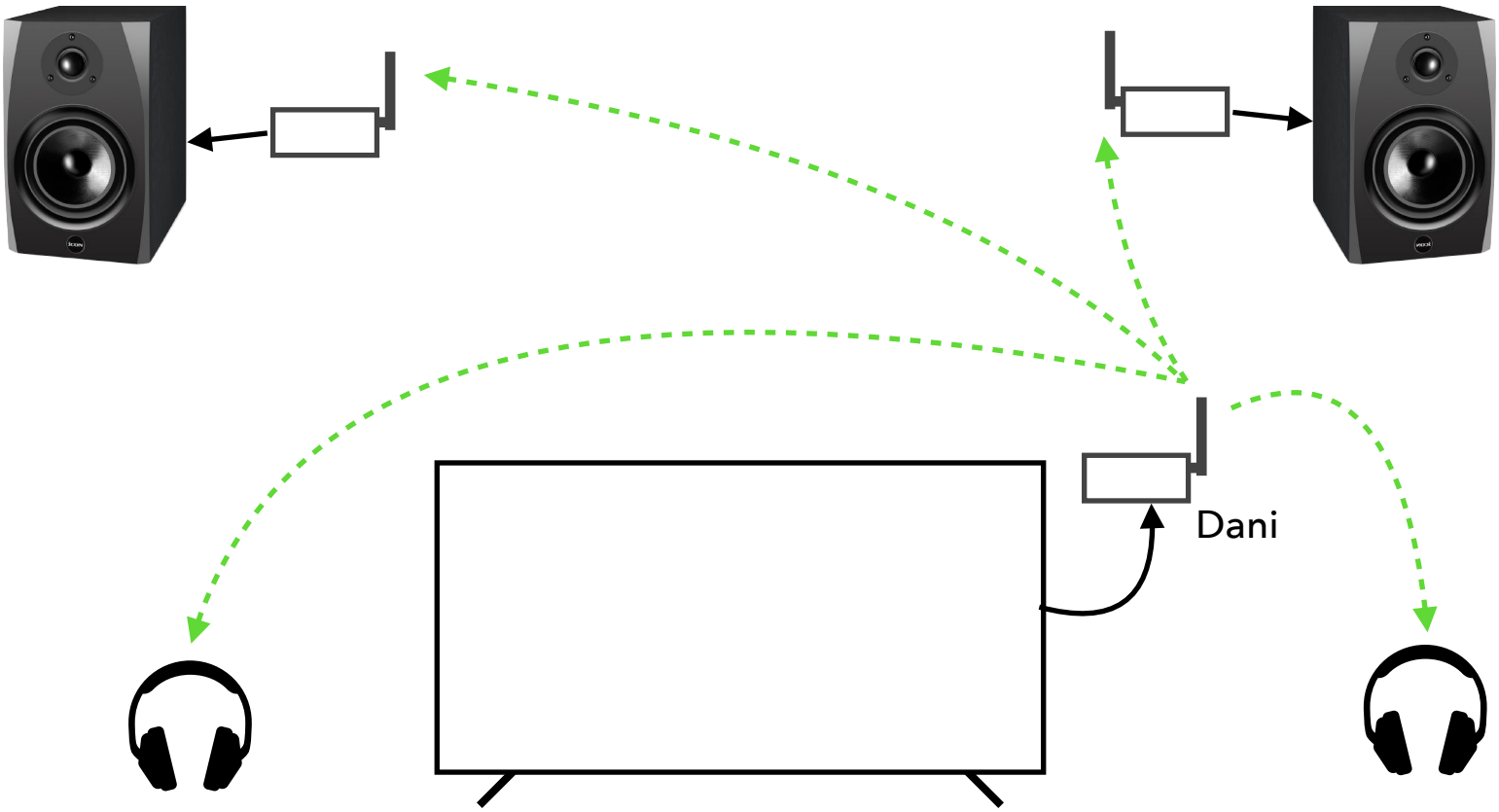
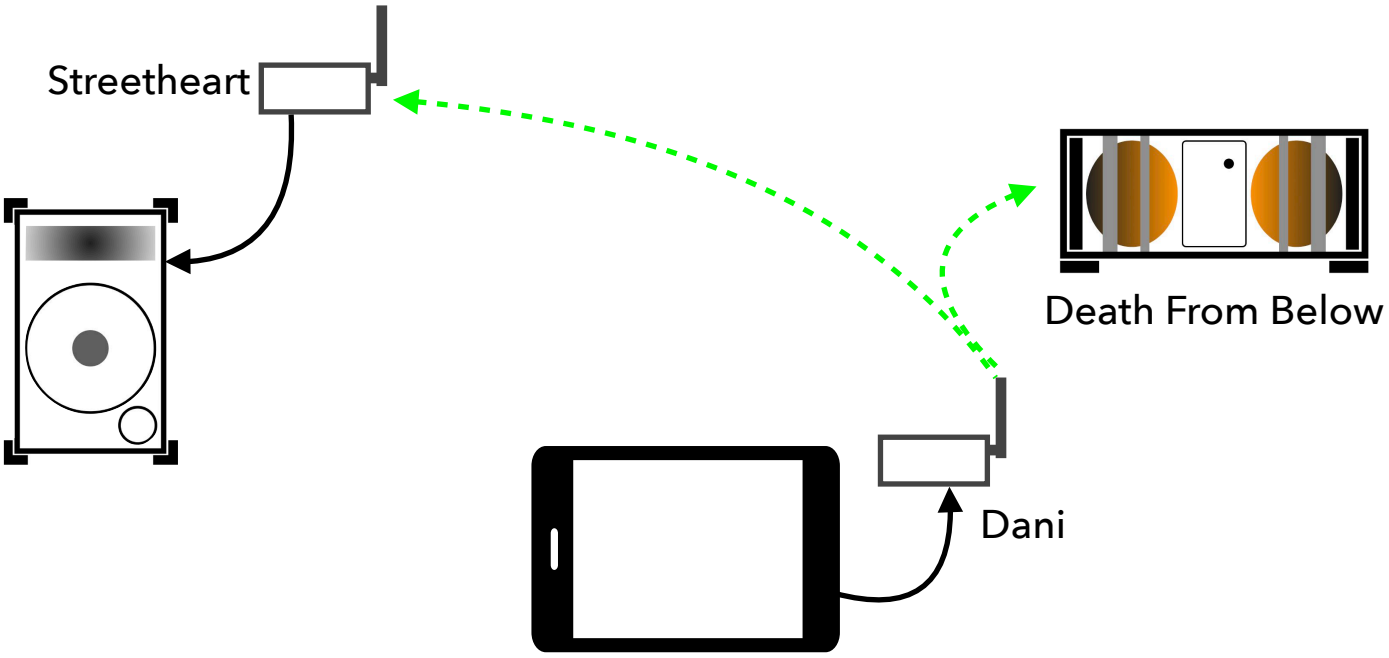
72

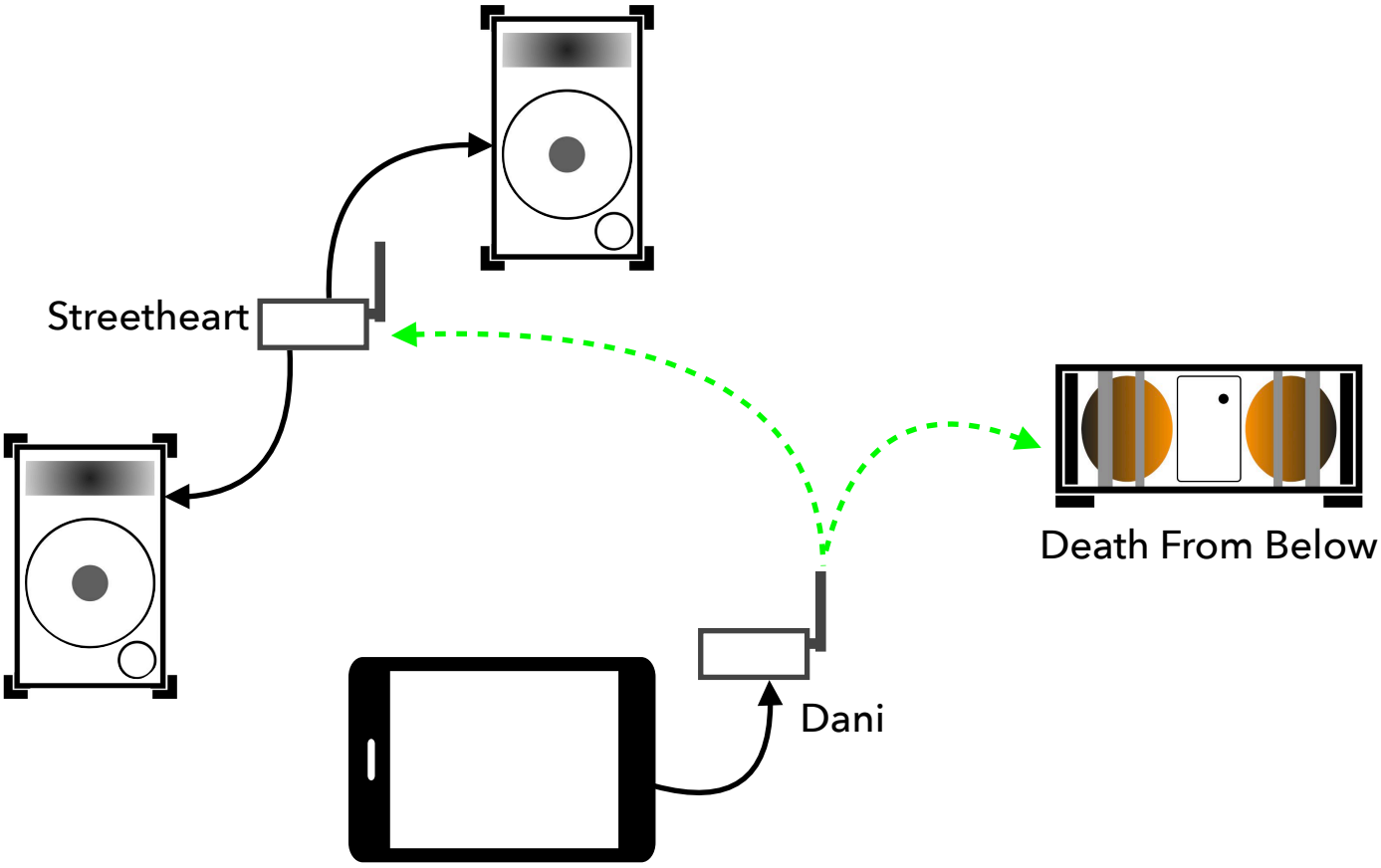
## Game On 2



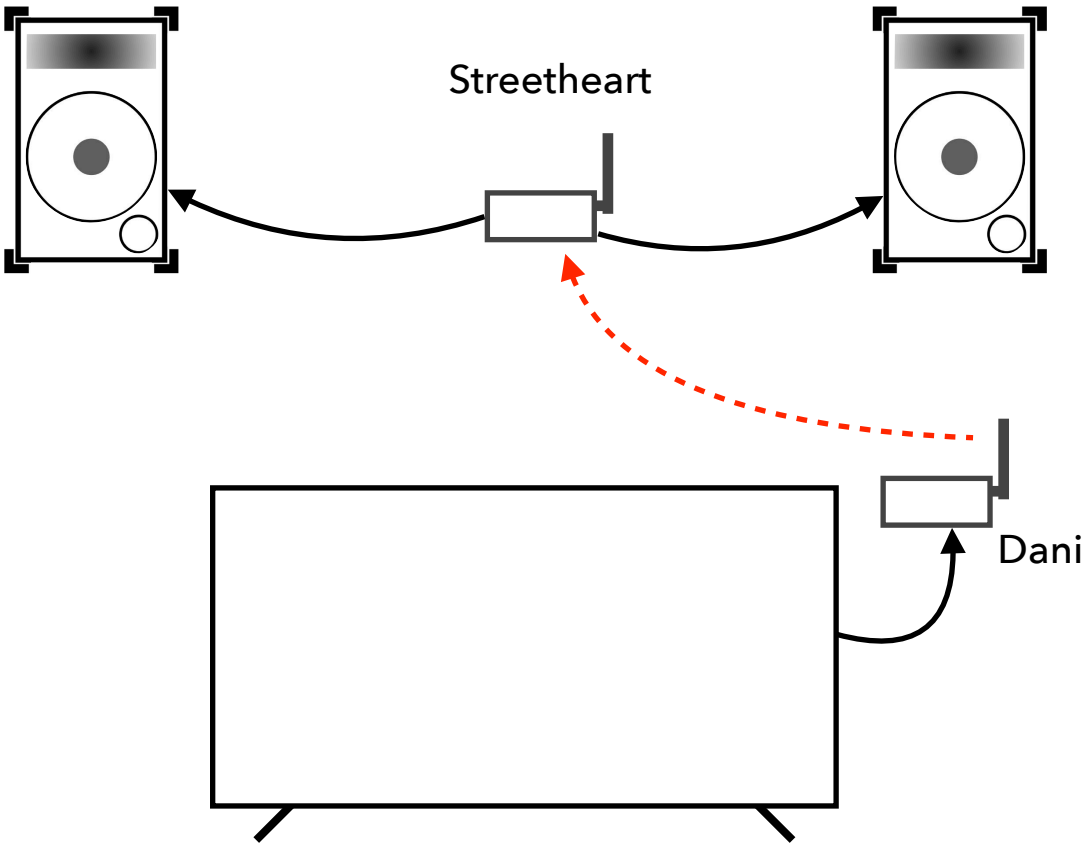
## 73 *Remind your neighbours you exist*



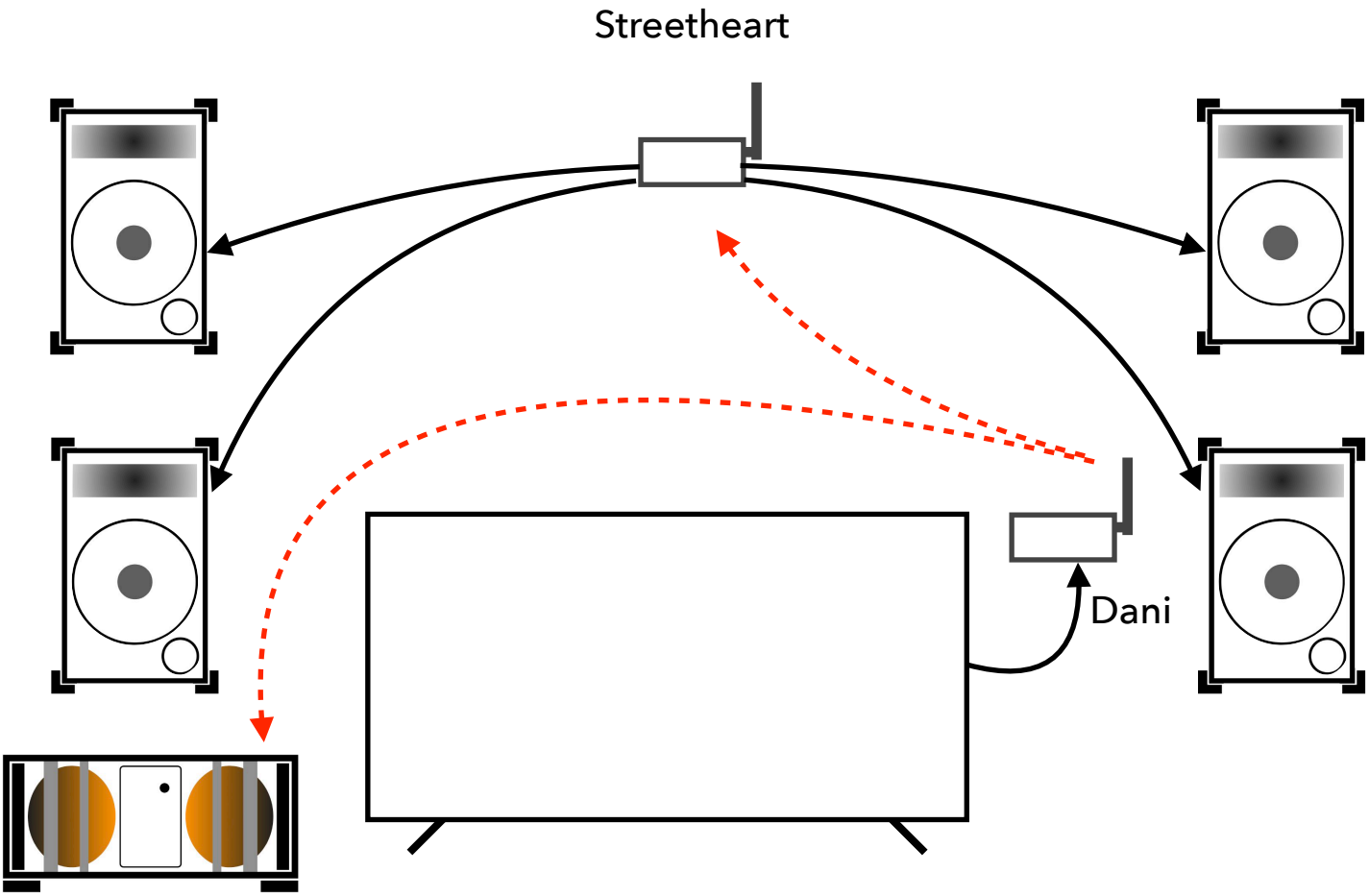

## 74 *Remind them even HARDER that you exist*



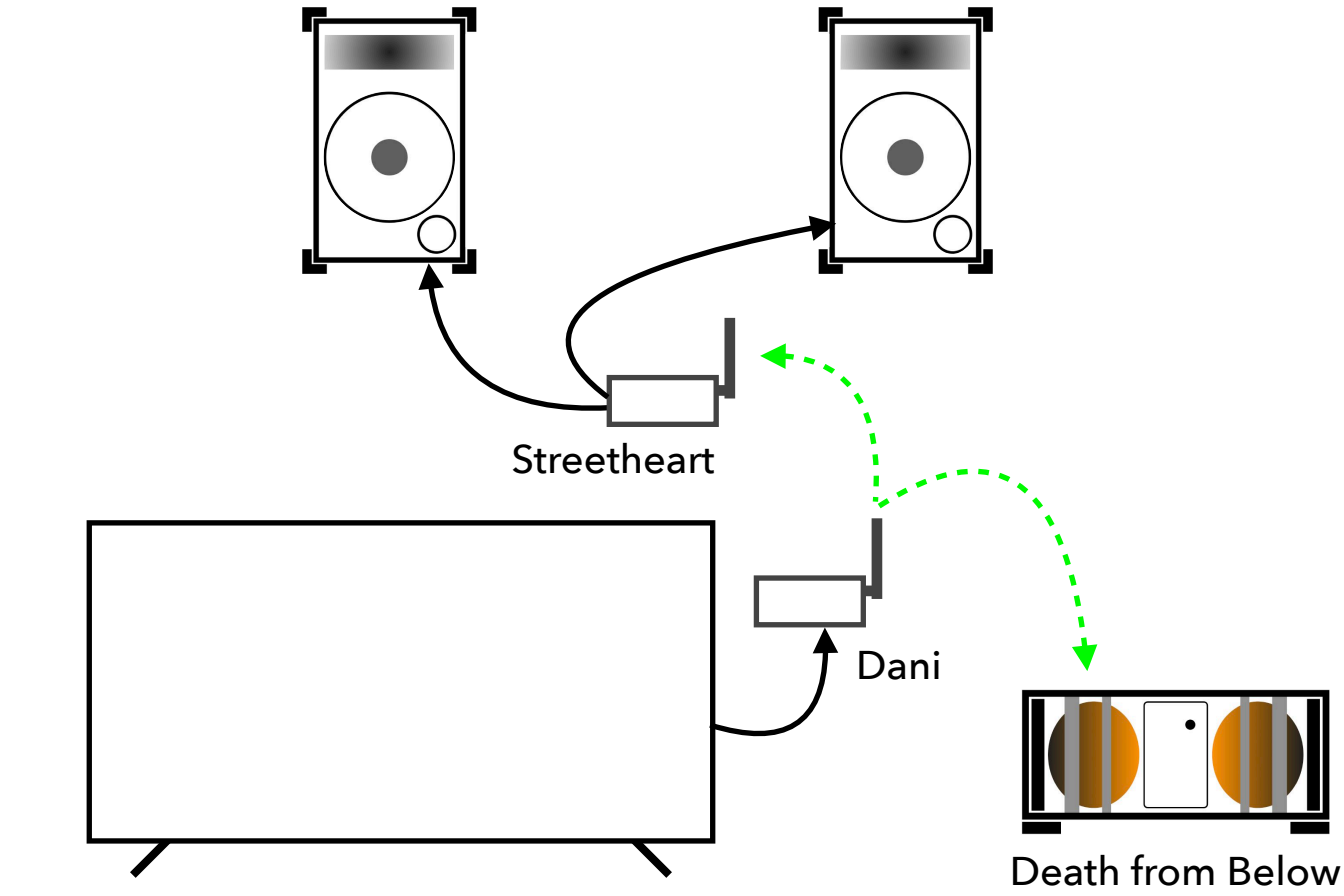
## 75 *keepin' them Mackies busy when I'm not gigging*



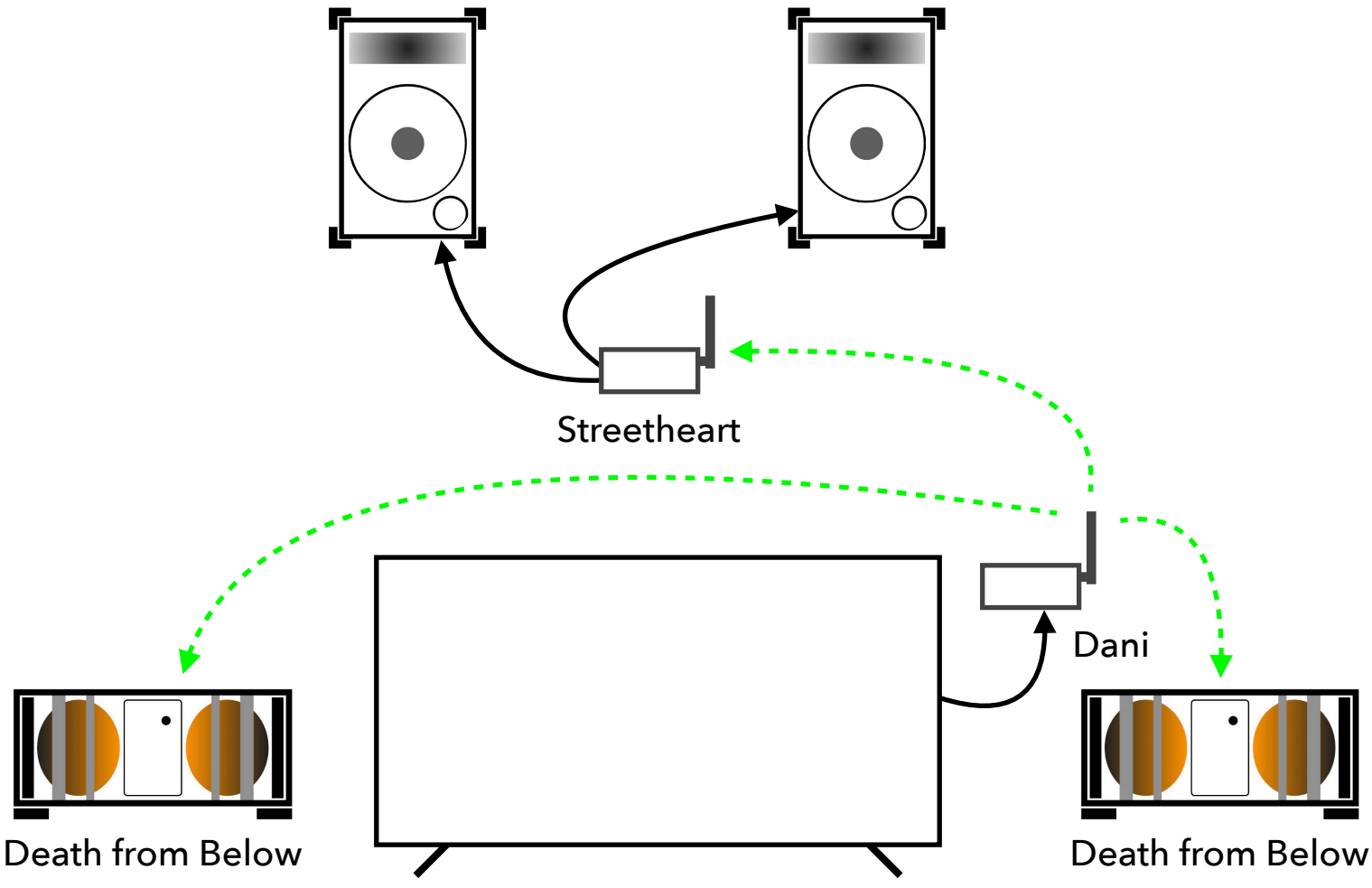

## 76 *… also, I hate my neighbours*



## 77 convert your old bookshelf speakers to a 2.1 system

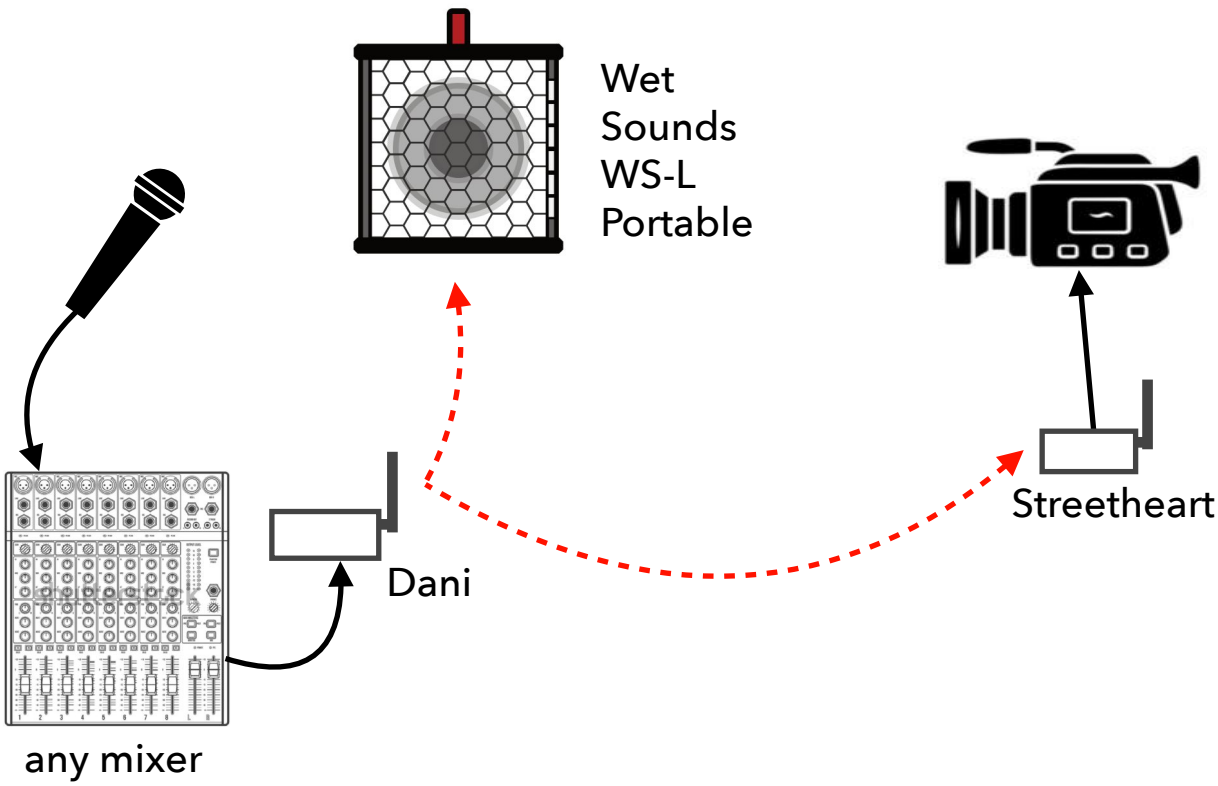



## 78 full stereo subs

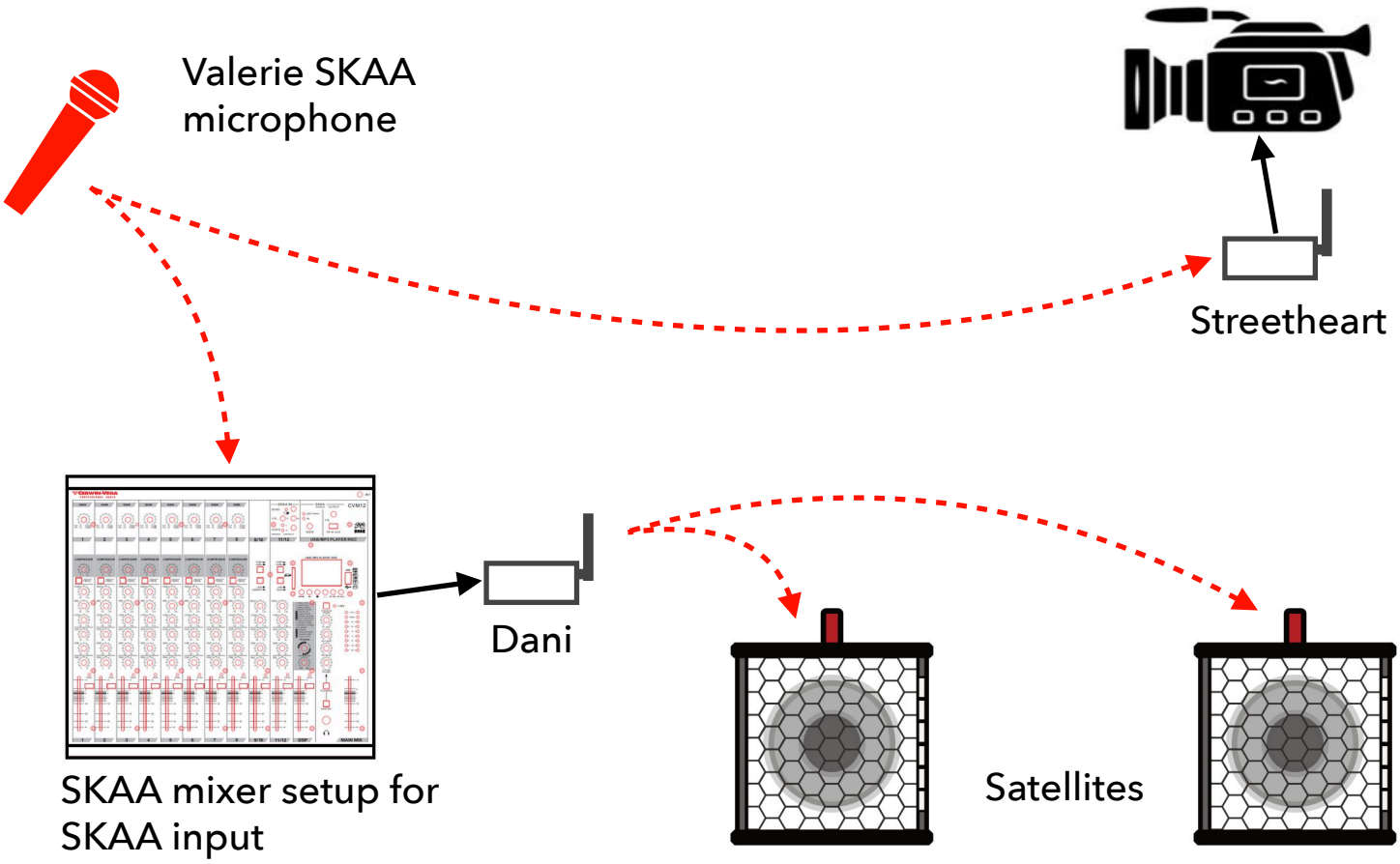



# CREATOR

DILLINGER LABS

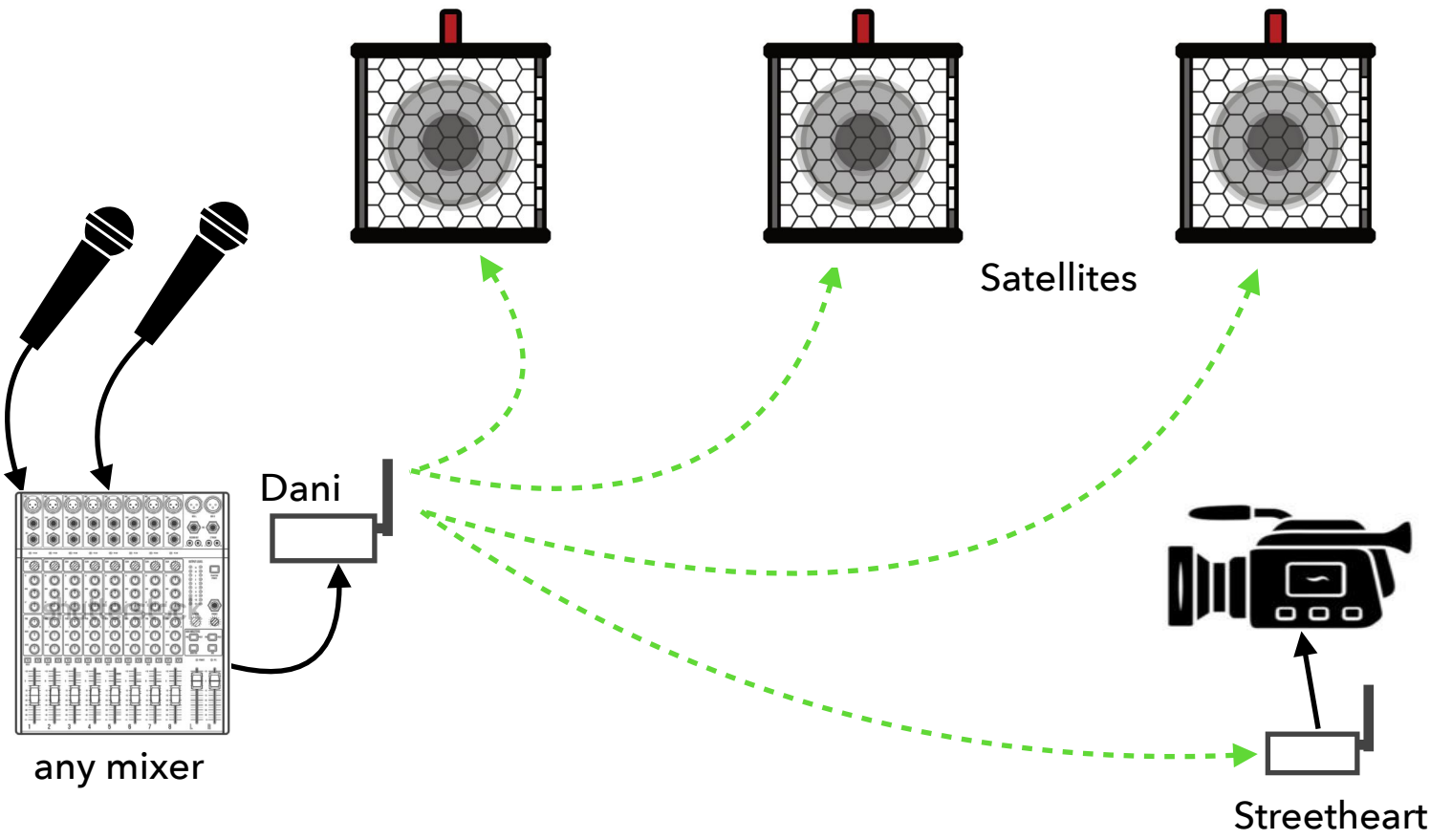

Wet
Sounds
WS-L
Portable
Streetheart
Dani
any mixer




Valerie SKAA
microphone
Streetheart
Dani
SKAA mixer setup for
SKAA input
Satellites

81

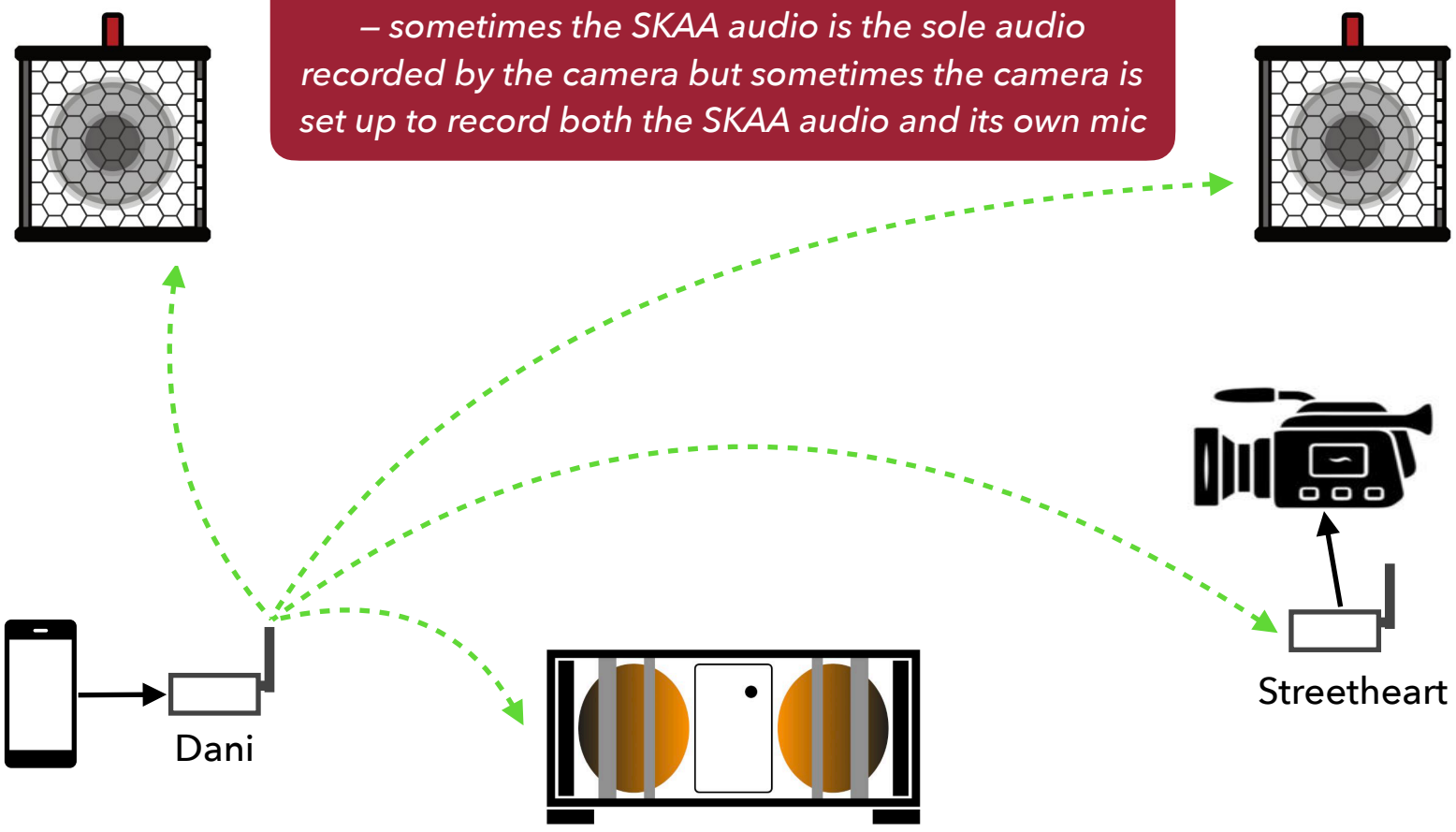
## wedding / corporate




82

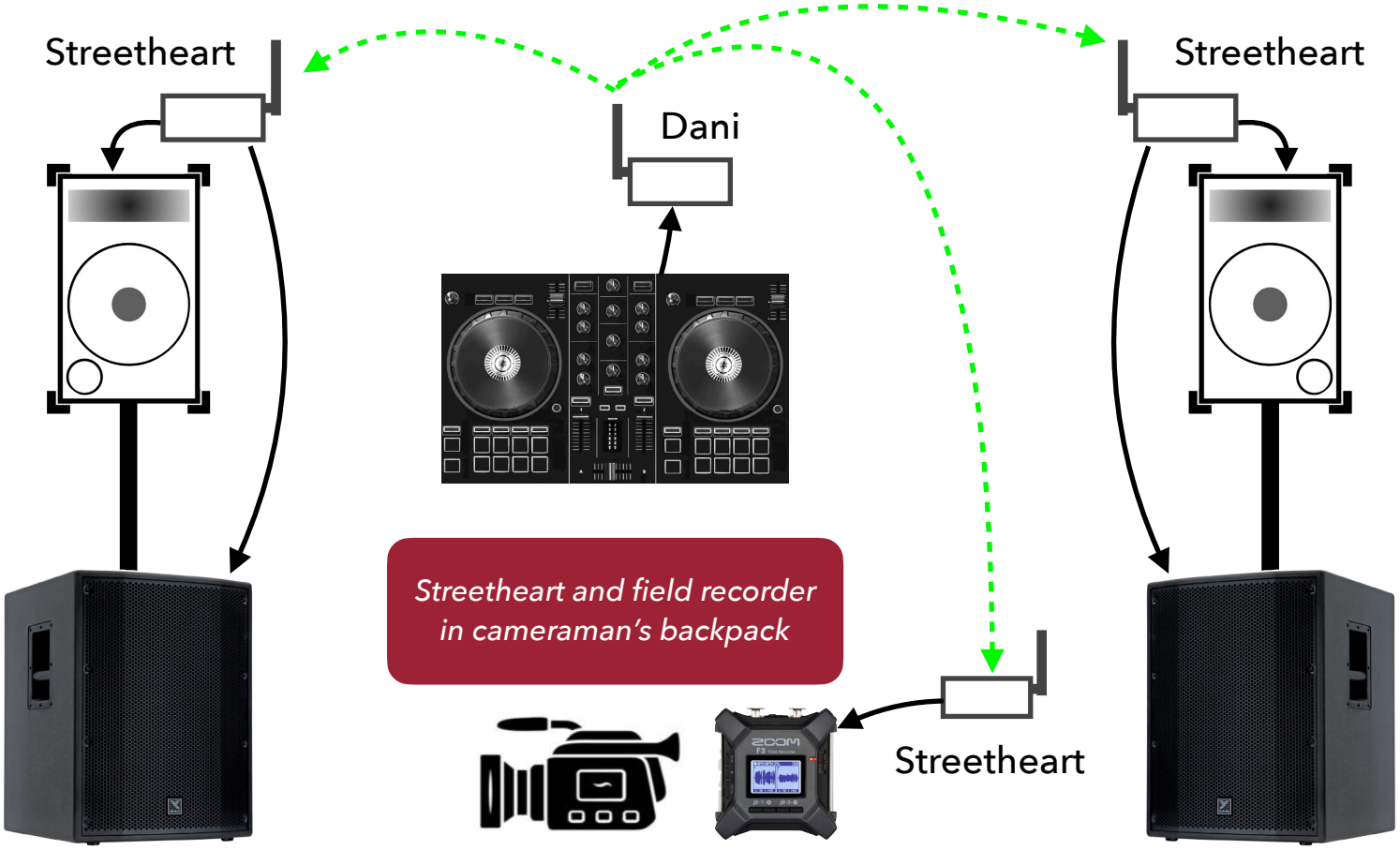
## music video shoot

*the same technique translates to many other contexts – sometimes the SKAA audio is the sole audio recorded by the camera but sometimes the camera is set up to record both the SKAA audio and its own mic*



83

## capture performance I




84

## capture performance II