DILLINGER LABS

Streetheart
Owner's Manua

SKAA® Pro

wireless audio

Receiver

developed in Canada
built to survive nuclear attack

Introduction

Thank you for choosing Dillinger Labs Streetheart – a SKAA Pro wireless audio receiver designed for pro audio applications.

- SKAA / SKAA Pro dual-mode Receiver with 50 meter range, Burr Brown DACs, balanced / unbalanced line level outputs and Headphone jacks
- The perfect companion to the Dani SKAA / SKAA Pro Transmitter
- Pro-grade SKAA wireless audio. 100% Bluetooth free. 100% WiFi free.
- Works with all SKAA Transmitters, all SKAA Pro Transmitters and all SKAA Nadja Hubs
- Designed specifically to upgrade virtually any piece of sink-side pro audio gear to SKAA / SKAA Pro wireless
- Perfect for upgrading your amplifiers, powered speakers and wired headphones to lightning-fast SKAA wireless
- Ideal for replacing long XLR or TRS cable runs – for this application we recommend you use a Dani Transmitter on the audio source side
- Receives two discrete audio channels and outputs them on four ¼" jacks (2 output jacks per audio channel)
- Feed signal-hungry 19" rack amplifiers (any brand) – feed up to 4 separate amplifiers from a single Streetheart Receiver
- Perfect for creating a wireless Headphone cue mix system for your studio
- Need to add an extra pair of monitor speakers to the "band room" in your studio? Upgrade a pair of powered monitors with a single Streetheart to fill that remote room with low-latency audio from your control room.

For the intrepid few who've always wondered what this meant but were too busy taking numbers to ask …

The SKAA® standard for wireless audio guarantees compatibility between all products bearing the SKAA Compatible Badge. SKAA transmitters work with iOS & Android mobile devices, Mac & Windows computers, televisions and any product having a line output, S/PDIF output or a headphone jack.

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. Learn more at www.SKAA.com

- Love your powered PA speakers? Great – convert them to lightning-fast SKAA wireless by adding Streetheart.
- Want to add a battery-operated wireless subwoofer to your Soundboks network? Convert a powered sub into a SKAA wireless sub just by adding Streetheart.
- Use the level control knob to turn down the blistering output of Streetheart and you can feed consumer-grade gear like bookshelf speakers or your home theatre system.
- 12 hour run time from a full charge using Streetheart's internal rechargeable Li-Ion battery


We like to make our products easy to use and Streetheart is no exception !

Still, to fully unleash the considerable capabilities of this shiny new work of art, we vehemently advise you to read the Owner's Manual. Its pages are brimming with juicy morsels of invaluable insights, irreverent commentary, and other assorted nuggets of paradigm-altering revelation. We really put our foot in this one so we hope you love your Streetheart as much as we do !!

Quick Start

3

4

5   **6**

OUTPUT Panel

out   -6   out

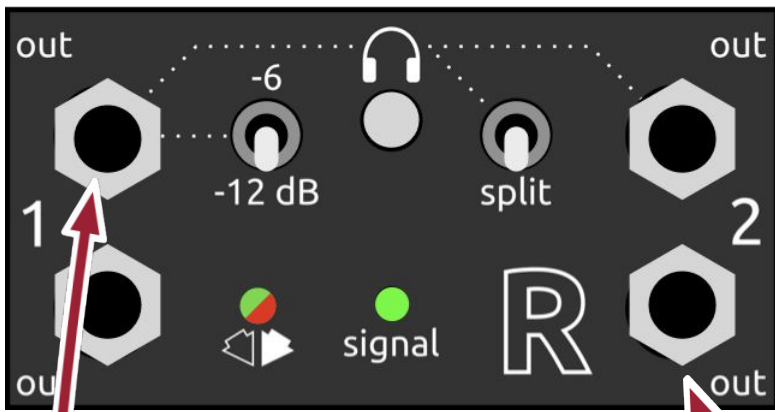-12 dB   split

1   2

out   signal   R   out
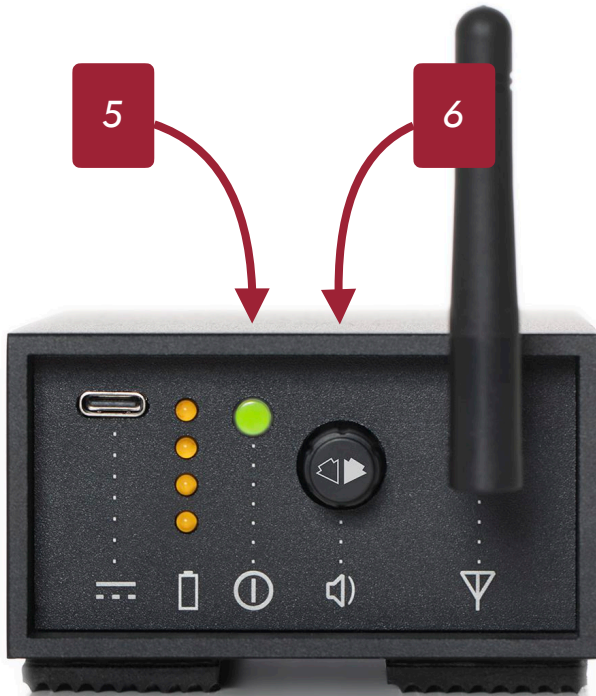
USER Panel

Pretty much everything about Streetheart is as awesome as its feet …

QUICKSTART GUIDE

1. *Power ON a SKAA Transmitter like Dani, Cassandra, Diz or Ursula. Or, power ON a Hub speaker in SKAA transmit mode, for example: Soundboks 3, 4, Go, Wet Sounds WS-L or Electrotec Stage One*

2. *Play music into your Transmitter / Hub*

3. *Screw on Streetheart's antenna and point it up*

4. *Plug headphones into Streetheart's UPPER OUT 2, push IN the HEADPHONE button and make sure the SPLIT switch is up. DON'T don the headphones till you've dialled in a reasonable volume in step 6.*

5. *Power ON Streetheart by holding down its power button for a few seconds*

6. *Turn the knob to adjust volume. If you don't hear the right music in your headphones, double click (quickly press in twice) the volume knob.*

Output Jacks

- Streetheart was designed to rapidly convert any powered speaker into a SKAA speaker. But that's not all it does.
- Streetheart is the companion PRO RECEIVER to the Dani PRO TRANSMITTER, but keep in mind that Streetheart may also be fed by literally **any other** SKAA transmitter, too.
- All four jacks on the output panel are **balanced** ¼" TRS "line level" outputs
- **IMPORTANT**: Only the Lower Outs 1&2 support unbalanced connections (via ¼" TS cables) – **don't plug unbalanced TS cables into the Upper Outs !**
- Streetheart has a full-scale output of +22 dBu on its balanced line OUTs. This is gobs of level; enough to properly drive rack amps. If your powered speaker can't handle +22, just turn down Streetheart's volume (knob on the USER panel)
- Lower OUTs 1 & 2 are the MAIN outs and are most commonly used for Left and Right channel audio – but they can also handle separate audio mixes, if that's what you want
- So long as the Headphone switch is disengaged and the Pad is off, Upper OUTs 1 & 2 carry **exactly the same** two signals as their Lower counterparts.
- Bone-a-fide Burr Brown buffers and Burr Brown DACs are behind those jacks
- Our engineers burned the midnight oil to ensure Streetheart's OUTs have a noise floor way down in the sub basement
- Need a PA system for karaoke or a speech? Use the Valerie SKAA Pro wireless Mic with Streetheart and connect up to 4 powered speakers
- Bond 2 Streethearts to any SKAA Pro Transmitter (19 ms latency) – using the 4 outputs per Streetheart, connect up to 8 powered speakers
- Connect Streetheart to an audio interface using ¼" TRS to XLR or ¼" TRS to ¼" TRS cables
- Engage the Headphone switch and plug in 2 Headphones in the Upper OUTs – use to set up a cue mix, or just plug in temporarily to quickly monitor the audio Streetheart is receiving
- Tip: If you notice that one channel is louder than the other, ensure you are using the same type of cables on both channels; balanced or unbalanced
- Trick: if you need to mix balanced and unbalanced cables, use Upper Out 1 for the balanced (TRS) cable and Lower Out 2 for the unbalanced (TS) cable. Set the Pad switch to -6.
- Need cables? Mics? Check out SKAAstore.com

This giant "R" is a handy reminder that Streetheart is a RECEIVER

Streetheart has 4 outputs:

The Lower OUT 1 & OUT 2 are the MAIN balanced TRS line OUTs … and they can also accept TS plugs (in which case they become unbalanced line OUTs)

The Upper OUT 1 & OUT 2 are EXTRA balanced (TRS) line outs, just in case you need them … they also magically transform into headphone jacks when you engage the Headphone switch

The Upper OUT 1 boasts a dedicated Pad switch which can optionally reduce this jack's output by 6 or 12 dB relative to the other 3 outputs … handy !

Output Panel Switches & LEDs

- Engaging the Headphone switch (pushed-in position) converts the Upper OUTs into two headphone jacks. Try it – plug in one or two wired headphones, and adjust volume to taste using the knob on the USER Panel.

- Some headphones have a 3.5 mm (1/8") plug – for these use a ¼″ TRS to 3.5 mm TRS adapter

- Want to set up two separate studio cue mixes? Engage the Split switch to enable two pairs of headphones to hear two different mixes.

- The Split switch only works if you have the Headphone switch engaged and Streetheart's Audio Routing is set to STEREO – the Split feature is *for headphones only*

- Pro Tip: When you engage the Split switch, make sure you are sending 2 separate (mono) audio programs into channels 1 & 2 of your SKAA Transmitter (for example, Dani). Headphone 1 will hear audio program 1 and Headphone 2 will hear audio program 2.

- Pro Tip: The Pad switch on Upper OUT 1 also works when the Headphone switch is engaged. Have your friend who likes to blast their audio loud connect their headphones to Upper OUT 2 and you connect yours to Upper OUT 1. Use the Pad switch to lower your headphones by 6 or 12 dB and save your eardrums.

- The Signal LED will pulse green along with the received audio signal when Streetheart is receiving SKAA or SKAA Pro wireless audio

- The Signal LED will never go red, since Streetheart itself cannot clip. Pay attention the signal LEDs on your SKAA Transmitter (eg. Dani) and on the amp or powered speakers connected to Streetheart to make sure these are not clipping.

- The Signal LED shows the signal arriving at Streetheart, NOT the level being output from the jacks – this way you can see if there's audio signal *before* you turn up or unmute Streetheart.

- The Bond Indicator (LED with 2 arrows) is a multi-colour indicator which works with the Bond Button located on the USER Panel. These two elements team up to enable you to Bond Streetheart to any SKAA or SKAA Pro audio source (transmitter or Hub speaker). See the SKAA Receiver User's guide section later in this document to learn all about how to control which audio source Streetheart is listening to.

Engage (push IN) the Headphone switch to transform the Upper OUTs into headphone OUTs

The Bond Indicator works with the Bond Button on the USER Panel

Use the Pad switch to reduce the level of Upper OUT 1 by 6 or 12dB relative to the other 3 OUTs

The Signal LED flashes along with the audio – if you don't see activity, check that Streetheart is Bonded to an audio source which is playing

Split switch: in the up position, both headphones will hear audio channels 1/2 as L/R stereo audio; in the Split position, headphone 1 will hear channel 1 only and headphone 2 will hear channel 2 only

Pro Tip: for a great default setup, keep the Headphone switch engaged and the Pad switch set to -12. This way you can plug headphones into Upper OUT 1 at any time to monitor the audio Streetheart is receiving, and the headphone level will be reasonable, even if Streetheart is cranked up.

Hold the power button for a few seconds to turn Streetheart ON / OFF

Volume Knob: Rotate clockwise/counterclockwise to adjust Local Volume

This knob can also be clicked – it is the SKAA Bond Button, too

Power & Volume

- Power Streetheart ON / OFF by holding the power button down for a few seconds
- The Power Button glows whenever Streetheart is powered ON.
- Normally, the Power Button will glow green, but if Streetheart is Bonded to a **SKAA Pro** Transmitter, the Power Button will glow red to let you know.
- Streetheart has a volume knob (for controlling Local Volume) which doubles as the Bond Button
- Turn the volume knob clockwise to increase the volume and counter clockwise to decrease it. Turning it will take you from zero to max volume in 30 steps. See the Bond Indicator on the Output Panel flash with each step. When it stops flashing, you've reached zero or max.
- Remember, the output level of Streetheart depends on **both** its Local Volume (Streetheart's volume knob) and the Global Volume set by the SKAA Transmitter (for example, Dani's volume knob)
- Global and Local volume example: With Transmitter set to 50% and Streetheart set to 80% the net volume level will be 0.5 x 0.8 = 0.4 = 40%.
- Setting Levels: Play audio into your SKAA Transmitter. Set the Global Volume at the SKAA Transmitter to max. Start with Streetheart turned all the way down. Set the speakers / amps connected to Streetheart somewhere in the range of 30 - 50% volume. Then bring up the local volume on Streetheart. Watch the input signal LEDs on the amps / speakers. Turn Streetheart up as high as possible, but if you see or hear clipping, back it off until you are below the clipping level. Now turn up the amps / speakers to where you need them (70% - 90% is typical) and control the Global Volume of your system using the Transmitter's Global Volume.
- Bond Button: Triple click (click 3 times, fast) to mute all outputs. Triple click again to unmute.
- Bond Button: Double click to search for a new transmitter. Once a transmitter has been found, the Bond Indicator on the OUTPUT Panel will turn bright amber
- Bond Button: press and hold the Bond button for 3 seconds to add the transmitter to your Green List so you don't have to search for it next time you power on Streetheart
- See the **SKAA Receiver User's Guide** (next 2 pages) for more info on how to use the Bond Button / Bond Indicator

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

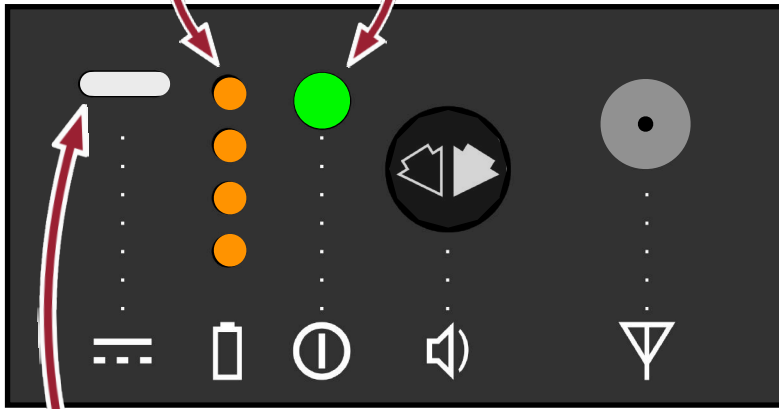| ◁▶ Button	Command	Indicator
Hold a few seconds	<u>Add / Delete</u> Manually add / delete the current transmitter to / from your Green List	○ to ● = Added ● (flash) = Deleted
-	<u>Auto Add</u> SKAA will automatically add the current Amber transmitter to your Green List if you listen to it for 30 minutes	○ to ● = Added
1 Click	<u>Green Mode</u> 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 ● (flash) = Next one ● (bright) = Bonded
2 Clicks	<u>Amber Mode</u> *Explore* for new, unknown transmitters (ones which are not already on your Green List)	● (dim) = Hunting ○ (bright) = Bonded

More Commands

◁▶ Button	Command	Indicator
3 Clicks	<u>Mute</u> do again to Unmute; any Click command will first Unmute and then do its function	○, ● or ● = Muted (slow flash)
4 Clicks	<u>Red Mode</u> 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 ● (bright) = Bonded
6 Clicks	<u>Factory Reset</u> Clear Green List. Start Over!	● (flash) = Reset Done
Hold during power on	<u>Make a Cluster of Receivers</u>: 1. Power off all transmitters and receivers 2. Power on the Master receiver while holding down its Bond Button—hold the button down until the Indicator begins to flash Red 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 4. Once all of the Indicators stop flashing (turn solid Red), power off all of the receivers	● (flash) = Receiver has entered 'Cluster Up' mode ● (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: <u>How do I bond with a specific Green transmitter?</u>. 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 <u>Make a Cluster of Receivers</u> 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.

While Streetheart is powered on, click the Power Button once to display the battery life remaining

Type C power jack — use the included Type A to Type C cable with a USB power adapter to charge your Streetheart. Using a Type C to Type C cable with an appropriate adapter is also fine. This jack is for POWER ONLY — if you plug Streetheart into your computer, nothing magical will happen other than Streetheart's battery becoming fuller !

A bunch of years down the road, when it's showing its age, you can replace Streetheart's Li-Ion battery and your battery life will spring back to "like new". Just remove 2 screws and you'll have access — do this yourself only if you're "handy".
Check SKAAstore.com for the battery cell replacement part. Make sure to dispose of your old battery by placing tape over both ends and dropping it off at your local recycling depot.

Battery and Charging

- Streetheart will run for up to 12 hours from a full charge, using its internal battery

- Streetheart will automatically power OFF when the battery level is critically low

- Virtually any 5V USB power adapter, such as an ordinary mobile phone charger, will charge your Streetheart

- Charge time depends on the current supply capability of the power adapter — Streetheart will do fast charging when connected to a 2A+ capable power adapter

- Streetheart's battery will charge in 2 hours (from fully depleted) — it will take longer if your USB Power Adapter can't provide at least 2 Amperes

- You can continue using Streetheart while it charges

- Pro Tip: If you hear noise while using and charging Streetheart at the same time, make sure you're charging it from a standalone wall charger or power bank. Sometimes the speaker or amp you're feeding audio to will have a handy USB charging port, but using it can create a ground loop which causes hum or buzz in the audio. If you want to charge Streetheart from it go ahead; just disconnect the charging cable for the gig.

- To check the Battery Fuel Gauge: make sure Streetheart is powered ON (the power button must be glowing either green or red) — then click the power button once to activate the Battery Fuel Gauge (the stack of 4 orange LEDs)

- The Battery Fuel Gauge gives you a visual indication of the amount of energy remaining in the battery — it stays on for a few seconds and then automatically shuts off

- When there is about 45 minutes of operating time remaining, the bottom LED in the stack will start to flash slowly (the one next to the battery icon) — no click on the power button is necessary to see this "low battery" flashing

- Streetheart will automatically power OFF when the battery is fully depleted

- When Streetheart's battery is charging, the top LED in the stack (the one right beside the Type C power jack) will glow — even if Streetheart is powered OFF

Included +2 dBi antenna
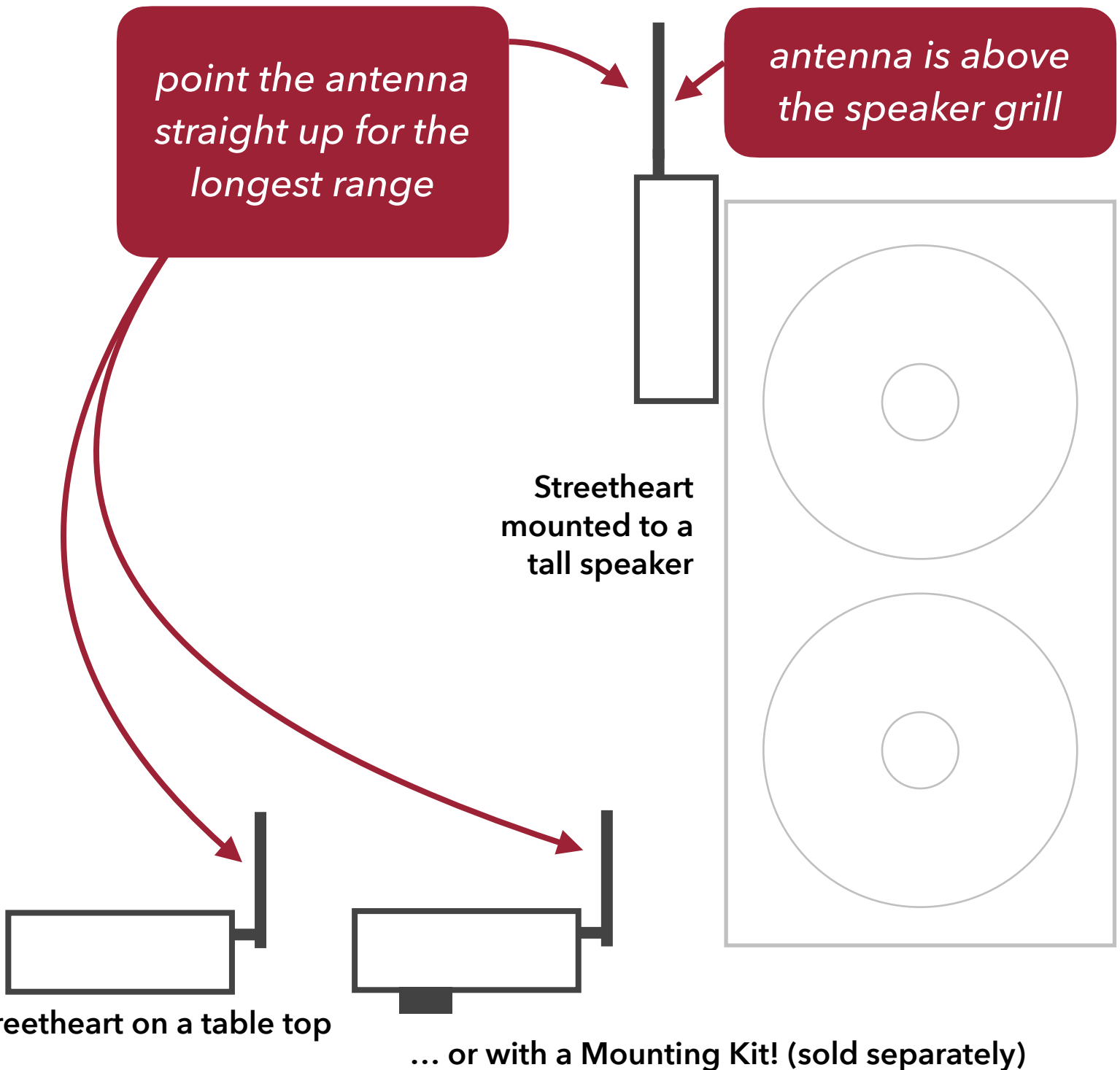
SMA antenna connector

Antenna Positioning Tips:

1. *Put your Streetheart in an elevated position (the higher the better) for maximum range*
2. *Keep the antenna pointed straight up*

Antenna

- Streetheart 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 transmit-side device – the device sending the audio to Streetheart

- Higher gain antennas (for example +5 dBi) can also be used with Streetheart to extend range if desired (to around 80 meters) – just be sure to do this only if +22 dBm transmissions are legal where you're operating so you don't wind up in the state penitentiary

- Streetheart's antenna can be removed by unscrewing it – do this to protect Streetheart from damage during transport, just like you should always unplug the audio cables, get into the habit of removing the antenna before tossing Streetheart into your gig bag

- The SMA antenna connector, as well as switches, buttons, indicators and jacks, are all protected by the protruding surround of Streetheart's enclosure – but for sure you still need to remove the antenna for transport and not doing so will void your warranty

- For best results, make sure to orient your antenna VERTICALLY and elevate Streetheart up above gear and people

- If you're using multiple Streethearts in your setup, separate them from each other by *at least* 4 feet – if you need to have them close together and you're getting poor range, try orienting their antennas up to 45° from vertical (and 90° from each other).

Antenna (cont.)

- If you've mounted Streetheart 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 the diagram below

point the antenna straight up for the longest range

antenna is above the speaker grill

Streetheart mounted to a tall speaker

Streetheart on a table top

… or with a Mounting Kit! (sold separately)

The Dani / Streetheart Mounting Kit

- For a super strong way to mount your Streetheart—say to a mic stand or to one of your powered speakers—this Mounting Kit is just the thing

- Start by attaching the adaptor (the round knurled thingamabob) to Streetheart

- Remove the screw on the bottom of Streetheart—the one that's closest to the jacks—with a **T15 Torx** bit (included), place the Adapter over the hole you've exposed and reinstall the screw

- Now you can either screw Streetheart onto a mic stand or use the included baseplate to permanently mount it to a speaker, wall, hockey stick or pretty much anything you please

- If you spin on Streetheart 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

Screws for the Baseplate

Adaptor

Baseplate
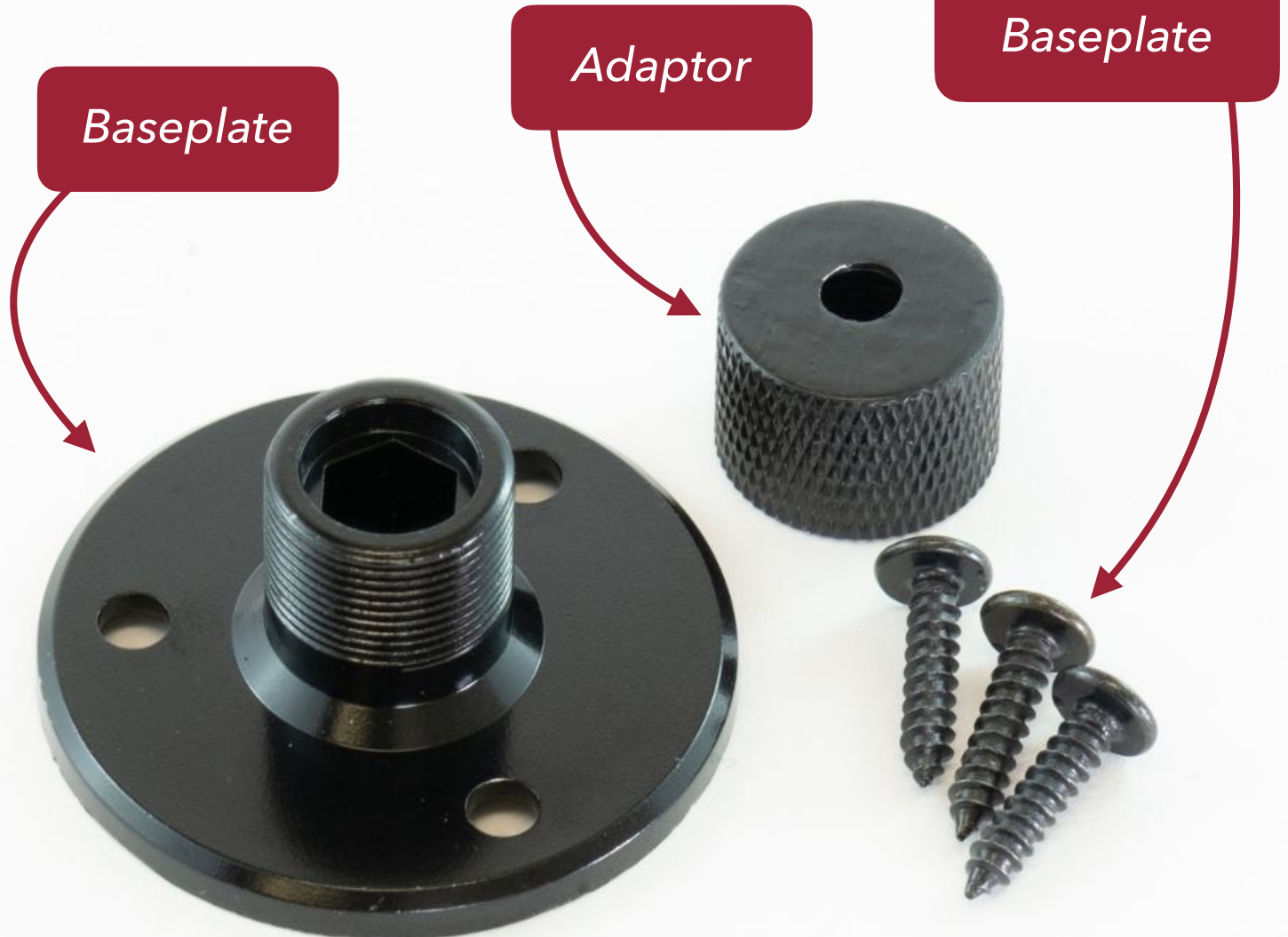
Installing The Adaptor

1
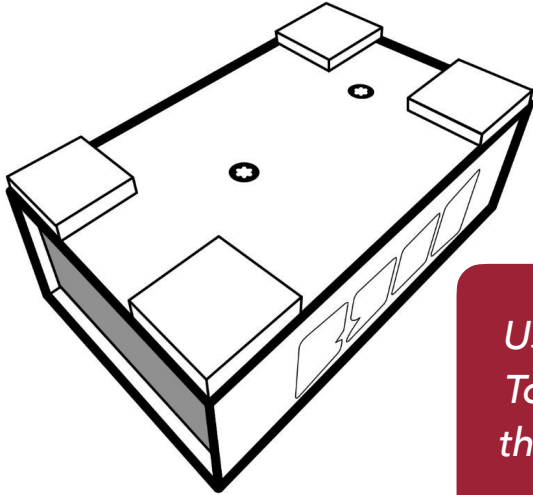
2
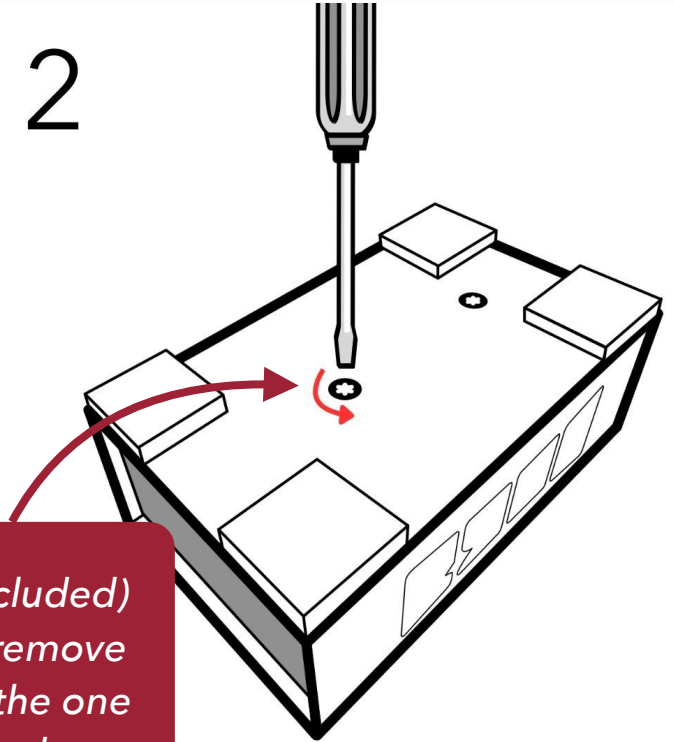
Use the (included) Torx bit to remove this screw; the one closest to the OUTPUT jacks

3
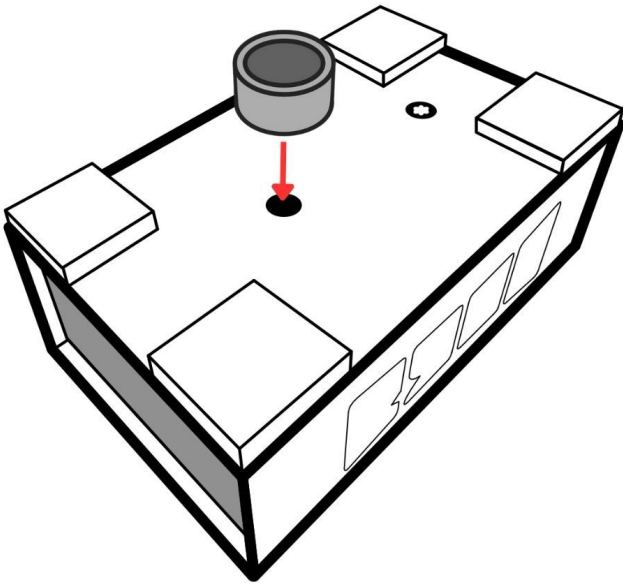
4
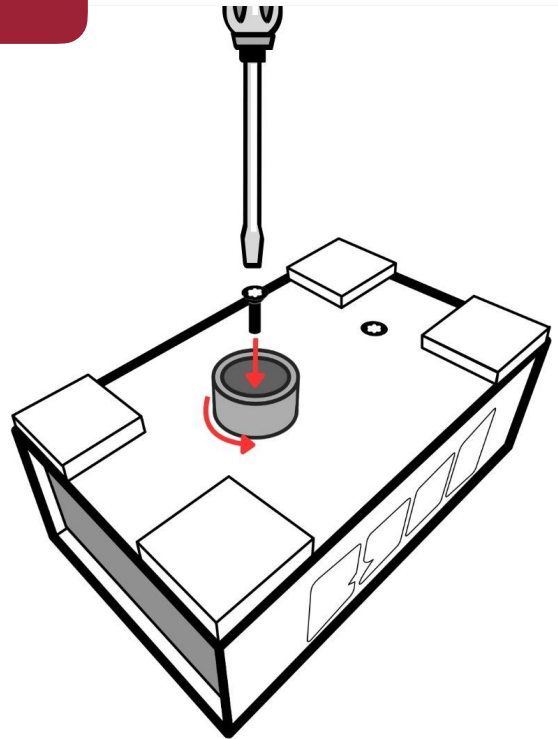
Cables for your Streetheart

- For best results, always use TRS (balanced) cables to connect your gear to Streetheart

- TRS means "Tip, Ring, Sleeve" – you can see that there are 3 discrete sections of conducting metal on TRS plugs

- The other end of the cables can be either *TRS* or *XLR male*

- Visit SKAAstore.com for all the cables you need
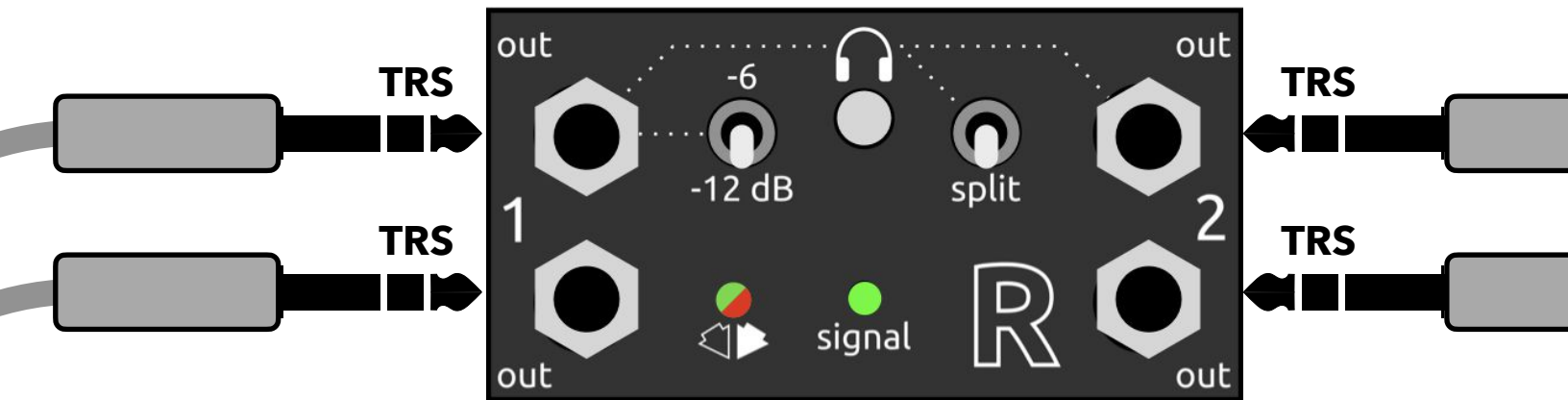
- Try to avoid using unbalanced (TS) cables if you can – unbalancing Streetheart's outputs cuts your signal level in half and gives noise a chance to creep in

- But if for some reason you need to "unbalance" the outputs of Streetheart, do so on the Lower Outs only

- TS stands for "Tip Sleeve" and as you can see, there are only 2 discrete sections of conducting metal on the plug

- When using TS cables, the other end of the cable should be either *TS* or *RCA*
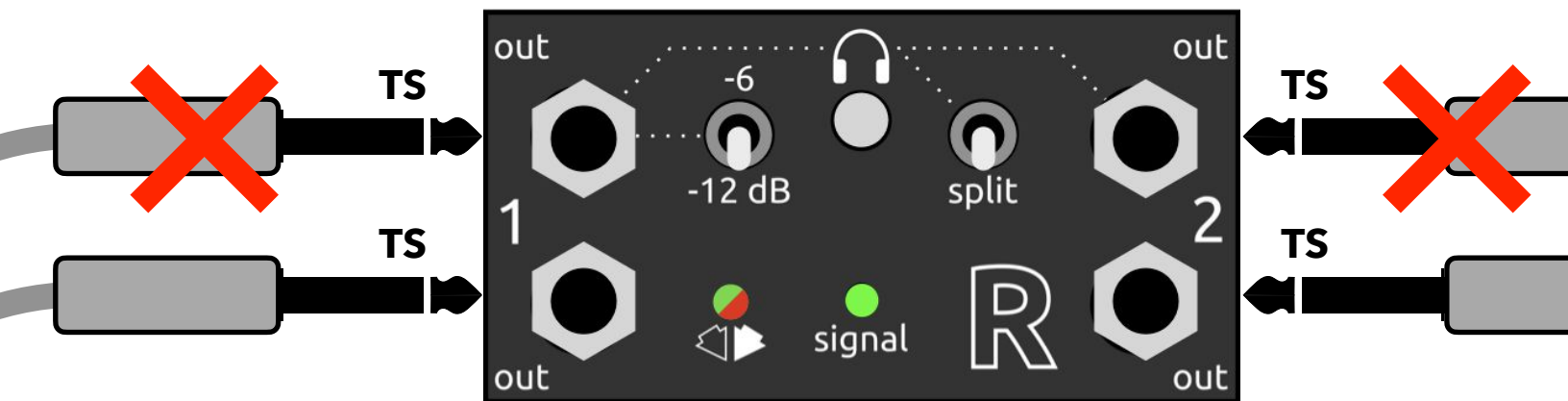
- **IMPORTANT** – if you use TS cables, use them on *the Lower OUTs only* since the Lower OUTs support *both balanced and unbalanced connections. NEVER use TS cables in the Upper OUTs.*

- One common use case when you'll need to use unbalanced connections is when you're feeding gear with RCA inputs (so your cable will be TS on one side and RCA on the other) … *when feeding gear with RCA inputs with Streetheart, always use the Lower Outs only*

SKAA cmd

SKAA cmd ("SKAA command") is The App You Don't Really Need. If you never download it, never install it, and never launch it, your Streetheart will still work just hunky dunky. But once you learn about what SKAA cmd can do, you might just *want* it…

SKAA cmd adds a long list of features to your SKAA setup. Use it with Cassandra, Diz and Ursula transmitters. Add custom names to Receivers, easily mute any or all of your Receivers, adjust individual volumes, see which Receivers are Bonded to your Transmitter and more.

The SKAA cmd App is available for iOS, Android, Mac, and Windows. Download it from Apple's App Store, Google Play, and at **SKAA.com/TLC**.

Check out the SKAA cmd App User's Guide, also on **SKAA.com/TLC**.
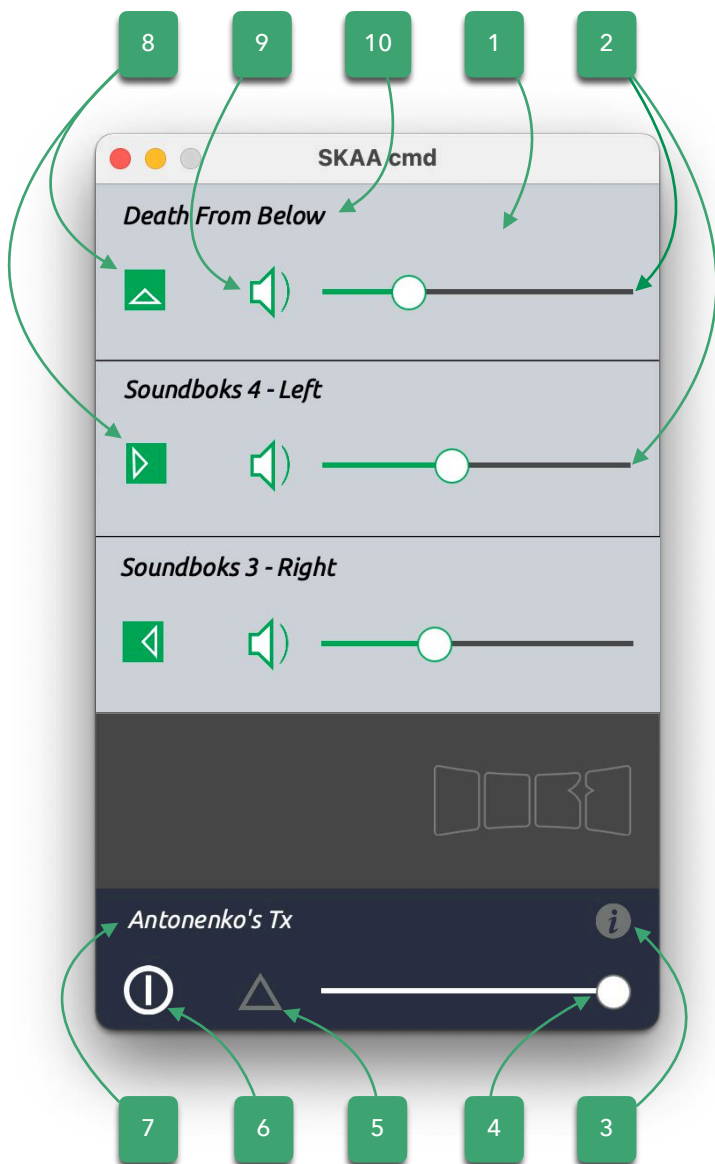
1. Each Transmitter has 4 Bays and you can Bond a single Receiver or a Cluster into each bay

2. Faders in each Bay control Receiver volume – their volume is also affected by 4. Double tap the fader to get all other faders to match.

3. Tap the "i" ball to see the SKAA cmd app version and the Transmitter firmware version

4. Global volume control. This fader affects volume of all Bonded Receivers in all Bays.

5. Mute Macro: tapping this triangle is the same as individually tapping the speaker icon of each Bonded Receiver – use to quickly mute ALL Bonded Receivers. Tap each Receiver's speaker icon individually to unmute them.

6. Transmitter Power Mode
    RED: Always ON
    GREY: Always OFF
    WHITE: ON only when there is audio

7. Tap to change the name of your Transmitter

8. Audio Routing: The green Bond Block lets you choose whether each Receiver is playing Left, Right, Mono Mix or Stereo audio. From the factory, Streetheart is set to STEREO. Generally, you'll want to keep it this way unless you have a good reason not to. *

9. Tap to mute this Receiver. Tap again to unmute.

10. Tap to change the name of your Receiver

*   Note that Streetheart's Headphone SPLIT feature will only work properly when Streetheart's Audio Routing is set to STEREO

The orange LED stack will tell you which Audio Routing option you've selected:

4 - Left (channel 1 audio)
3 - Right (channel 2 audio)
2 - Mono Mix (summed mono) audio
1 - Stereo (channel 1 & 2 audio)

Audio Routing

- Click the power button four times to enter Streetheart's **Audio Routing Select** mode

- You'll know you're in Audio Routing Select mode when you see one of the orange LEDs in the LED stack start to flash

- Turn the volume knob to select one of the Audio Routing options: Left, Right, Mono Mix or Stereo

- Setting Streetheart to Left or Right is useful in some situations; for example when one Streetheart is feeding the left side of the PA and another Streetheart is feeding the right side of the PA.

- When you've got Audio Routing set to LEFT, for example, all 4 of Streetheart's outputs will output Channel 1 audio (Left audio). So if you've got 4 big QSC amps to drive on the left side of the PA, you can feed each one with an output from Streetheart. All of them will get Left audio (channel 1).

- The Mono Mix (summed mono) setting is useful when you want to use Streetheart to feed a subwoofer with a single cable. Actually since all 4 of Streetheart's OUTs will output Mono mix, you can feed up to 4 subwoofers with 4 cables if you wish.

- 10 seconds after you finish twisting the knob, Streetheart will exit Audio Routing Select mode and return to normal operation

- NOTE – if you will be using Streetheart with headphones, and especially if you intend on using the SPLIT feature, make sure you've got Audio Routing set to STEREO

- Audio Routing Select is also available in the SKAA cmd app (see the SKAA cmd section on the next page). Using the app to set Audio Routing is possible when you're feeding Streetheart with a smart Transmitter like Cassandra, Ursula or Diz plugged into a smart device (smart phone, computer, tablet).

- When it was originally introduced, this feature was called "the Streetheart Easter Egg". Even though Audio Routing Select was always available on Streetheart via SKAA cmd, being able to do it without the app is beneficial since not all Streetheart users have a smart Transmitter (Cassandra, Ursula or Diz)

Audio Routing (continued)

- Let's say we have a Streetheart feeding Front of House Left amps and another Streetheart feeding the Front of House Right amps …
- In this case, you can set one Streetheart's audio routing to LEFT and the other to RIGHT
- The 1st Streetheart will ONLY output LEFT audio (on all 4 of its Output jacks)
- The 2nd Streetheart will ONLY output RIGHT audio (on all 4 of its Output jacks)
- But this is not limited to just LEFT and RIGHT audio … the transmitter may be sending 2 completely different mixes to the LEFT and RIGHT SKAA channels …. FRONT OF HOUSE on LEFT and FLOOR MONITORS on RIGHT, for example
- Another common example of using Streetheart in this way is sending FRONT OF HOUSE (mono mix) on channel 1 and AUX FED SUBS (mono mix) on channel 2. You can get both those audio mixes on a single Streetheart set to STEREO. Or, if the destinations are in wildly different locations, you can use 2 Streethearts and, if you need more than 2 outputs per audio mix, you can set one Streetheart to LEFT and the other one to RIGHT which will give you 4 outputs for each mix.

> *see the Sweet Hookups section at the end of this manual for illustrated examples*

- Let's use this crazy example to illustrate our point: Imagine that on the Transmitter side, a Slayer song is being routed into SKAA's LEFT channel and a Lady Gaga song is being routed into SKAA's RIGHT channel.
- In the above example, the 1st Streetheart will play only Slayer on all 4 of its output jacks and the 2nd Streetheart will play only Gaga on all 4 of its output jacks
- If the Streetheart is set to STEREO routing as in the top image on this page, then Slayer will play out the two OUT 1s and Gaga will play on the two OUT 2s
- If I then engage the Headphone switch and turn the Split on, we will get Slayer in Headphones 1 and Gaga in Headphones 2.
- If we set Streetheart's audio routing to MONO MIX (see image to the right), all 4 of Streetheart's jacks will output a mix of Slayer and Gaga … which is totally not useful …
- But if my SKAA wireless content is indeed LEFT and RIGHT audio (from the same song), I can use the MONO MIX setting on Streetheart to mix the 2 together and output a MONO version of the song … handy since many gigs happen in mono
- Another common use for the MONO MIX audio routing is to provide a mono signal to a subwoofer (with MONO set, Streetheart can feed 4 subs from its 4 outputs)

> *Think of Streetheart as having 2 audio "pipes". If you want, you can have completely different audio flowing out of each pipe. If you want a particular Streetheart to output just one of those pipes' audio, you can have that, too*

Specifications

Parameter	Conditions	Value
Outputs	Headphone/Balanced SW in Balanced Position	4 x ¼″ TRS Balanced
Outputs	Headphone/Balanced SW in Headphone Position	2 x ¼″ TRS Balanced, 2 x ¼″ TRS Stereo Headphone
Load Impedance	Balanced/Unbalanced	> 20 kΩ / > 10 kΩ
Load Impedance	Stereo Headphones	≥ 32 Ω
Discreet Audio Ch.		2
Compatibility	SKAA OS 2.1 and later	Any SKAA or SKAA Pro Transmitter
Output Pad	Channel 1, Upper ¼″ jack only, either headphone mode or balanced out mode	0 dB, -6 dB, -12 dB, user selectable
Frequency Response	Reference: 997 Hz @ 0 dB FS	20 Hz – 20 kHz, + / - 0.5 dB, > 10 kΩ, any Balanced/ Unbalanced Output
Frequency Response (Headphones)	Reference: 997 Hz @ 0 dB FS	40 Hz – 20 kHz, + / - 0.5 dB, > 32 Ω
Max Output Level (Headphones)	997 Hz @ < 1% THD+N, load ≥32 ohms	>50 mW
THD+N (Balanced)	-1 dB FS, 20 Hz –20 kHz, AES17	<0.004%, Any Balanced Out
THD+N (Unbalanced)	-1 dB FS, 20 Hz –20 kHz, AES17, Unbalanced Out	<0.007%, Ch1 or Ch 2, Lower Jacks Only
THD+N (Headphones)	-1 dB FS, 40 Hz –20 kHz, AES17	<0.02%, > 32 Ω
Crosstalk (Balanced)	Channel to Channel, 0 dB FS, 20 Hz - 20 kHz	>101 dB, Ch1 or Ch2, Lower Jacks Only
Crosstalk, (Unbalanced)	Channel to Channel, 0 dB FS, 20 Hz - 20 kHz	>87 dB, Ch1 or Ch 2, Lower Jacks Only
Crosstalk (Headphones)	Channel to Channel, 0 dB FS, 40 Hz - 20 kHz	>60 dB

Parameter	Conditions	Value
SNR Unweighted (Unbalanced)	997 Hz @ 0 dB FS, AES17 Lower Jacks Only	>90 dB,Ch1 or Ch 2
SNR A-Weighted (Unbalanced)	997 Hz @ 0 dB FS, AES17 Lower Jacks Only	>92 dB, Ch1 or Ch 2
SNR Unweighted (Balanced)	997 Hz @ 0 dB FS, AES17 Any Balanced Out	>105 dB
SNR A-Weighted (Balanced)	997 Hz @ 0 dB FS, AES17 Any Balanced Out	>107 dB
Signal LED Thresholds	Reference: 0 dB FS at the DAC input	-20 dB FS
Digital Resolution		48 kSamples / second, 16 bit, each channel
SKAA Transport Latency	I2S digital to I2S digital	36.71 ms, + / - 1.5 samples
SKAA Pro Transport Latency	I2S Digital to I2S Digital	19.39 ms, + / - 1.5 samples

Important Information

Read this information carefully. Failure to follow these safety guidelines may result in personal injury or user dissatisfaction.

1. Never store or operate Streetheart near a heat source.

2. Do not charge Streetheart during electrical storms.

3. A common mistake is placing Streetheart on top of a powered speaker during a gig. Streetheart's feet are awesome, but that's not necessarily enough to prevent it from vibrating off a gigging speaker, falling to the ground and potentially sustaining damage. Either gaff tape Streetheart down to that speaker, or even better, get the Dani / Streetheart mounting kit, available at SKAAstore.com.

4. If you're always using Streetheart with a charging cable plugged in, make a point of running it on its battery at least once a month. Down to 3 LEDs on the fuel gauge is enough. This will extend battery life.

5. Listening to audio sources at loud volumes always comes with the risk of hearing loss. Use caution when setting your listening levels.

6. Not for use by children under the age of 12.

7. When Streetheart is subjected to strong electrostatic discharge (static shocks), Streetheart may shut down in response. If this happens, manually restart your Streetheart.

8. Any disassembly of your Streetheart will void your warranty.

9. IMPORTANT – always remove Streetheart's antenna prior to transport.

10. The soft carrying bag (included) protects Streetheart from damage, extending its life. It's also a handy way to keep Streetheart and its antenna together.

11. IMPORTANT – Do NOT use unbalanced cables (TS plugs) in Streetheart's UPPER outputs. Remember, TRS is always better and if you absolutely need to use TS plugs, do so ONLY IN THE LOWER OUTPUTs.

*This Owner's Manual is being continuously improved with the most up-to-date and accurate information on Streetheart. Please check our **website** for the most recent version. Have questions or comments about Dillinger Labs products? We want to hear from you! Reach out to us **here**.*

*Check out SKAA's **YouTube channel** for great how-to videos.*

CONGRATULATIONS on your bouncing baby Streetheart !!!

subscribe to the @SKAAsound channel on YouTube for HOW-TO videos !

also, watch the Streetheart video manual on YouTube: @SKAAsound

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

the SKAA cmd app is optional ... but download it for more features: SKAA.com/TLC

Go listen to Streetheart's namesake's music on Spotify or Apple Music – still awesome

Join us on social media: @SKAAsound

support: dillingerlabs.com/contact

the Sweet Hookups

- We're sure you're already thinking of how to integrate your brand new Streetheart into your existing setup. But in case you're needing some inspiration, we've listed a few of our favourite ways to use Streetheart 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 fill a school gym for that DJ gig you got roped into doing because you co-worker's kid is graduating and "they'd love someone who can really throw down", you'll find plenty of ideas below

Legend

SKAA   SKAA Pro   Bluetooth   cable
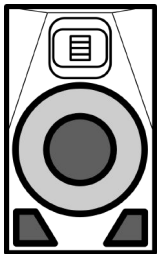
studio monitor speaker
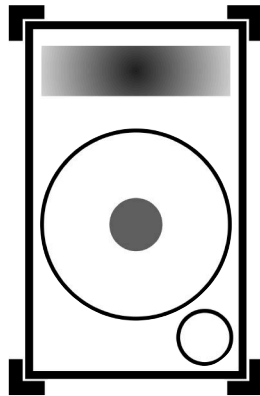
powered wired speaker
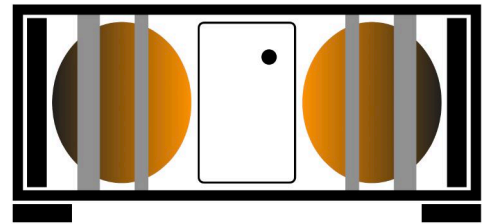
Death From Below
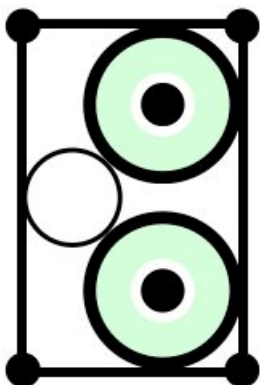
SKAA Speaker (Hub or Satellite)

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

Hub speakers have SKAA transmitters built in

Hub
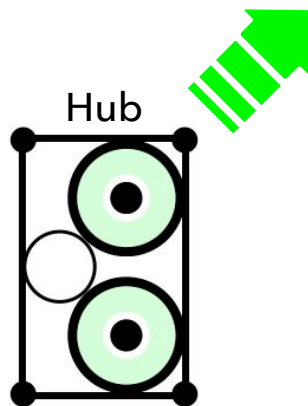
For example:

- **Soundboks 3 (in Host mode)**
- **Soundboks 4 (in Host mode)**
- **Soundboks Go (in Host mode)**
- **Electrotec Stage One (in any Relay mode)**
- **Wet Sounds WS-L (in Relay mode)**
- **And many others**
- **Typically support bluetooth and/or wired inputs**

---

and you can always cook your own Hub …
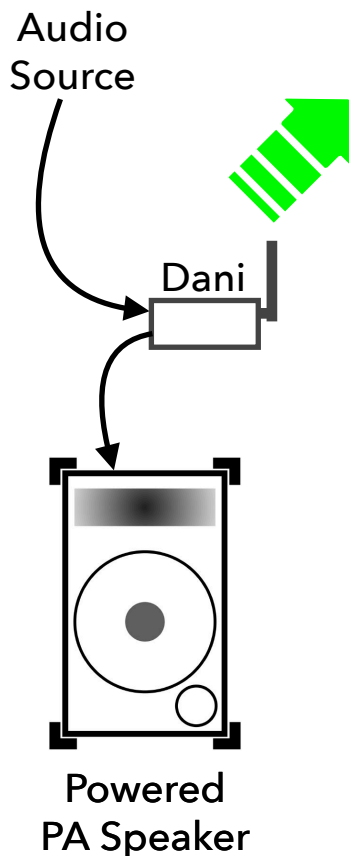
Audio Source

Dani

The do-it-yourself Hub:

- **Use any powered PA speaker (Mackie, EV, QSC, JBL, etc.)**
- **Add a Dani SKAA/SKAA Pro transmitter**
- **Daisy chain your audio source into Dani's inputs and then out from Dani's thrus to the PA speaker (use TRS patch cables)**
- **Enables you to both hear the audio and transmit it to up to 4 Satellites**

Powered
PA Speaker

Satellite speakers have SKAA receivers built in

Satellite
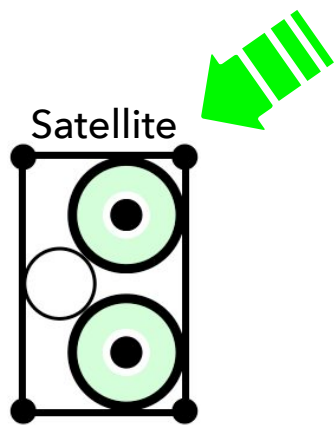
For example:

- **Soundboks 3 (in Join mode)**
- **Soundboks 4 (in Join mode)**
- **Soundboks Go (in Join mode)**
- **Dillinger Labs Death from Below**
- **Dillinger Labs Aquarius**
- **Electrotec Stage One (in SKAA mode)**
- **Wet Sounds WS-L (in SKAA mode)**
- **And many others**

---

and you can always grow your own Satellite …

Streetheart
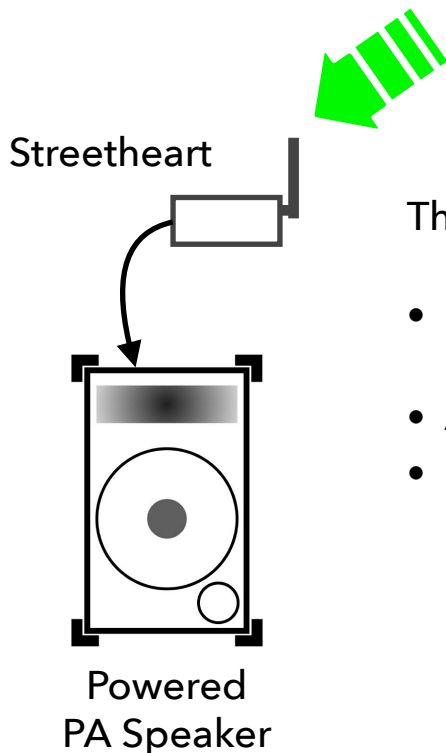
The do-it-yourself Satellite:

- **Use any powered PA speaker (Mackie, EV, QSC, JBL, etc.)**
- **Add a Streetheart SKAA/SKAA Pro receiver**
- **Connect Streetheart's outputs to the PA speaker using 2 TRS patch cables**

Powered
PA Speaker

sweet hookups: contents

Hookups	Use Case
1 - 28	Live and PA
29 - 42	Studio
43 - 52	Pro DJ
53 - 60	Home
61 - 66	Deckless DJ
67 - 76	Gaming & TV
77 - 82	Creator

LIVE
PERFORMANCE

DILLINGER LABS

1

put your amp EXACTLY where you want it
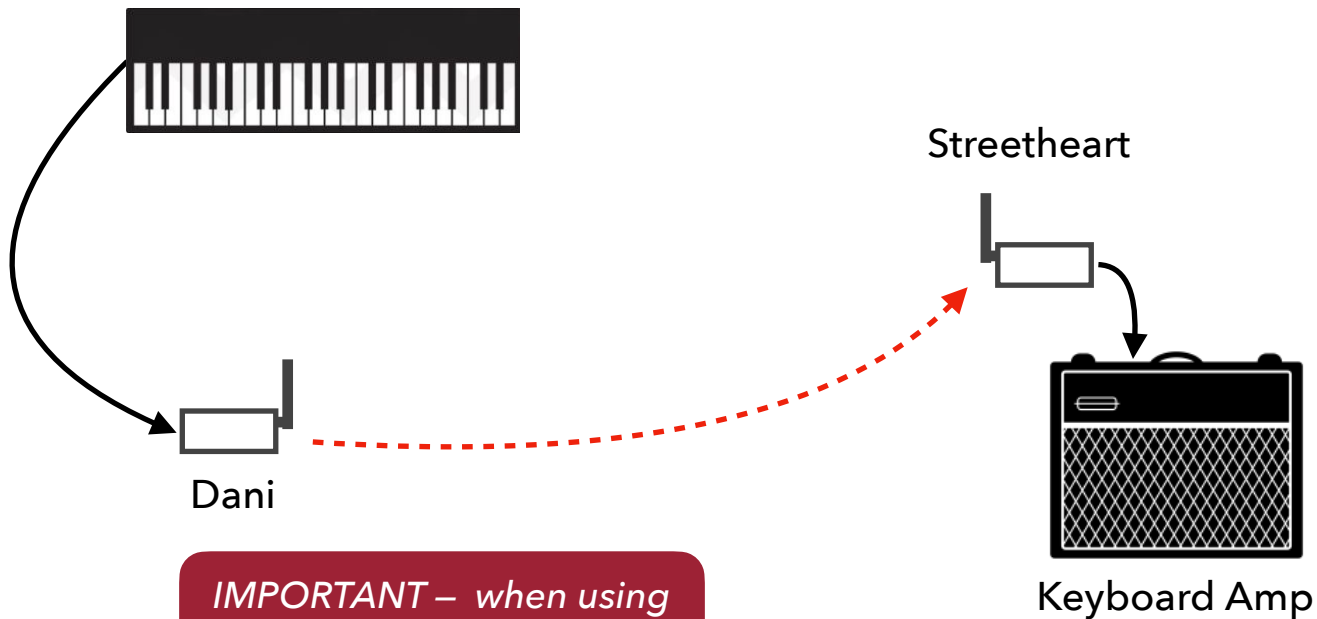
Streetheart

Dani

Keyboard Amp

2

minimize clutter on stage

Guitar or Bass

Jacqueline

Streetheart

re-amp box or buffered pedal

Guitar Amp

3　　　　　　　　　　　　*… or add a pedalboard!*

Guitar or Bass

Streetheart

TS Cable

re-amp box

pedalboard
(with a buffer
somewhere)

Dani

Guitar Amp
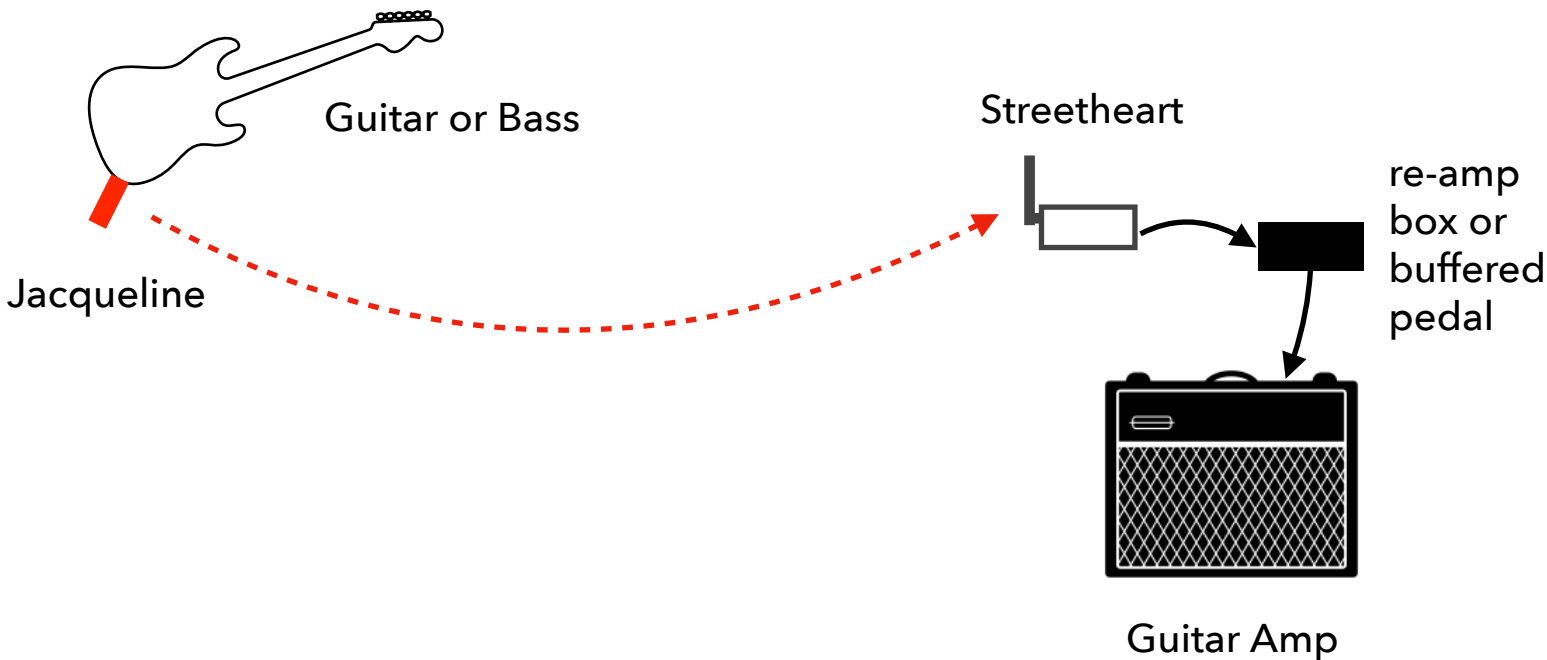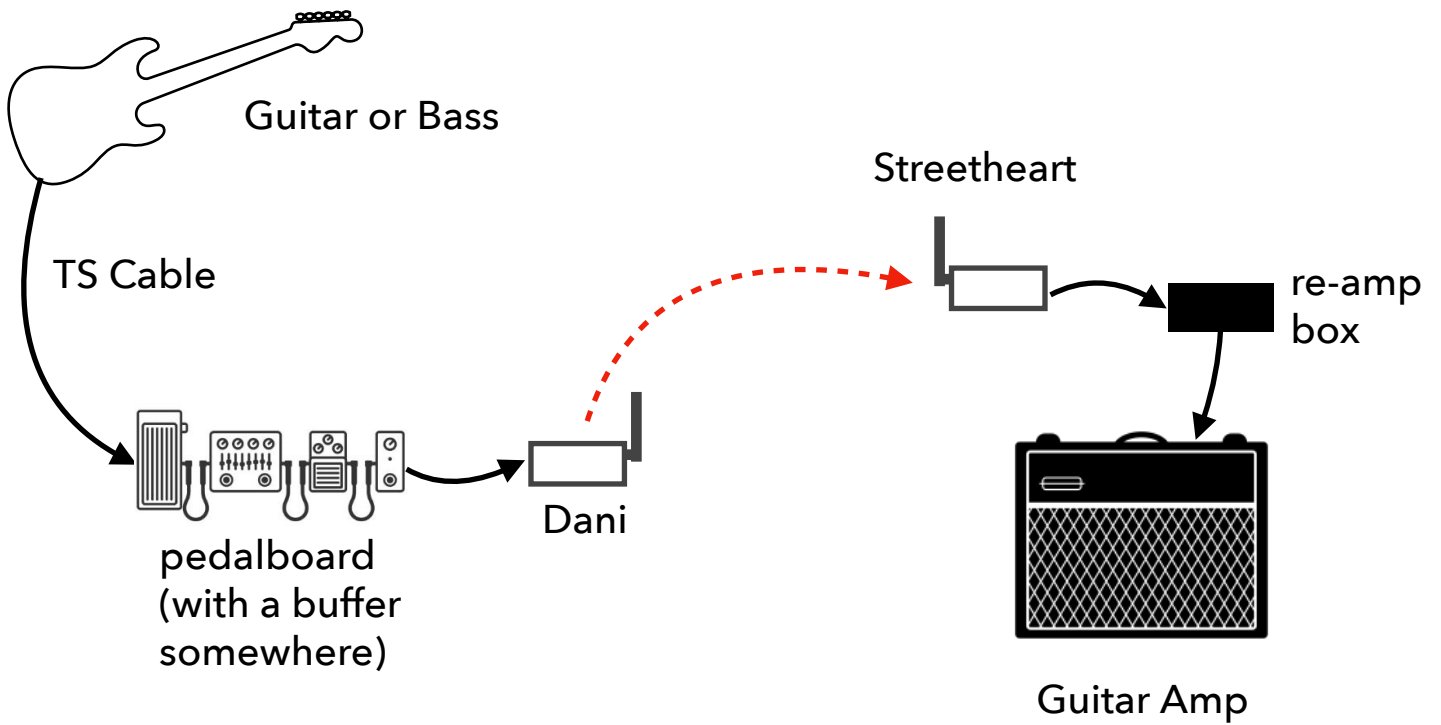
> *you can do these without the re-amp box, but be VERY careful with Streetheart's output! Turn it way down.*

4　　　　　　　　　　　*it's even possible with Jacqueline!*

Guitar or Bass

Streetheart

TS Cable

re-amp box

pedalboard
(with or without a buffer)

Jacqueline
Transmitter

Guitar Amp

coffee shop special

Dani

Valerie Mk2
mic

two Streethearts
feeding the mixer
section of a
powered speaker

---
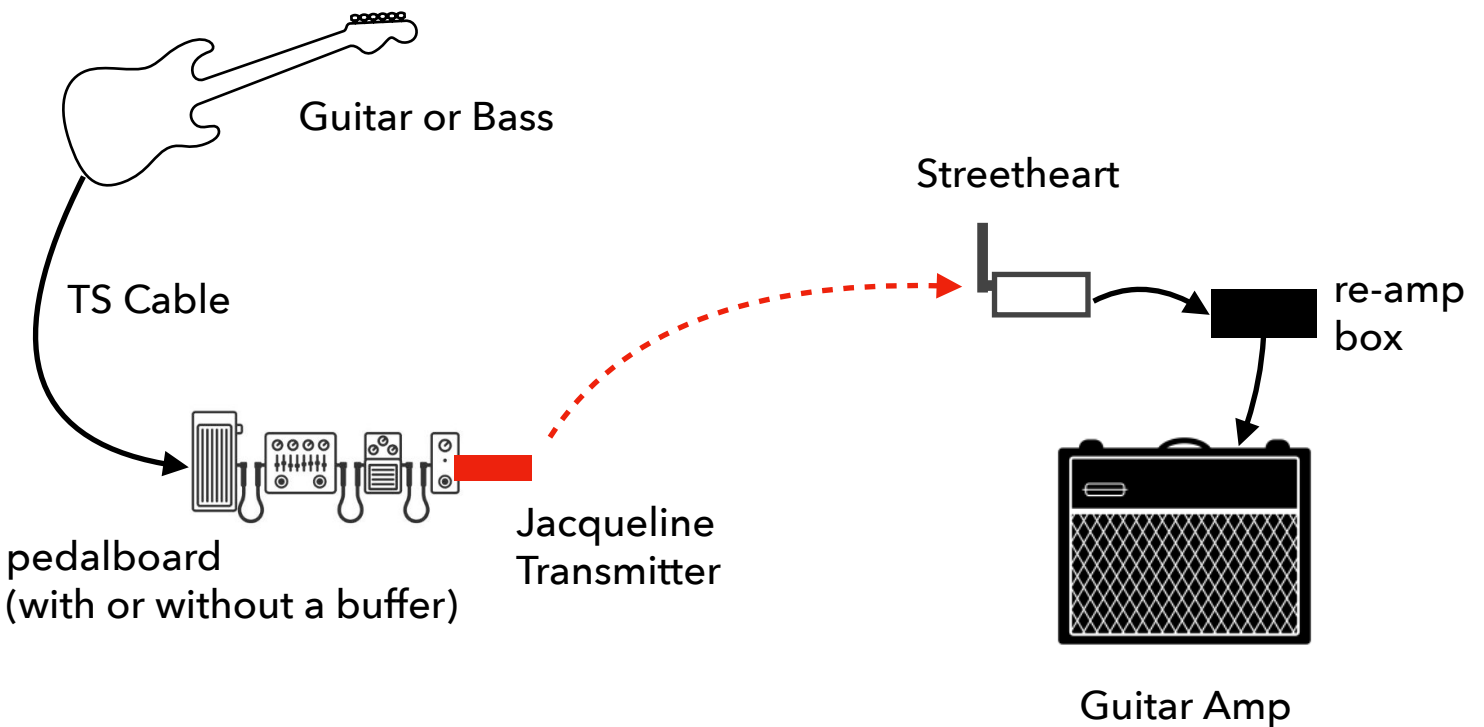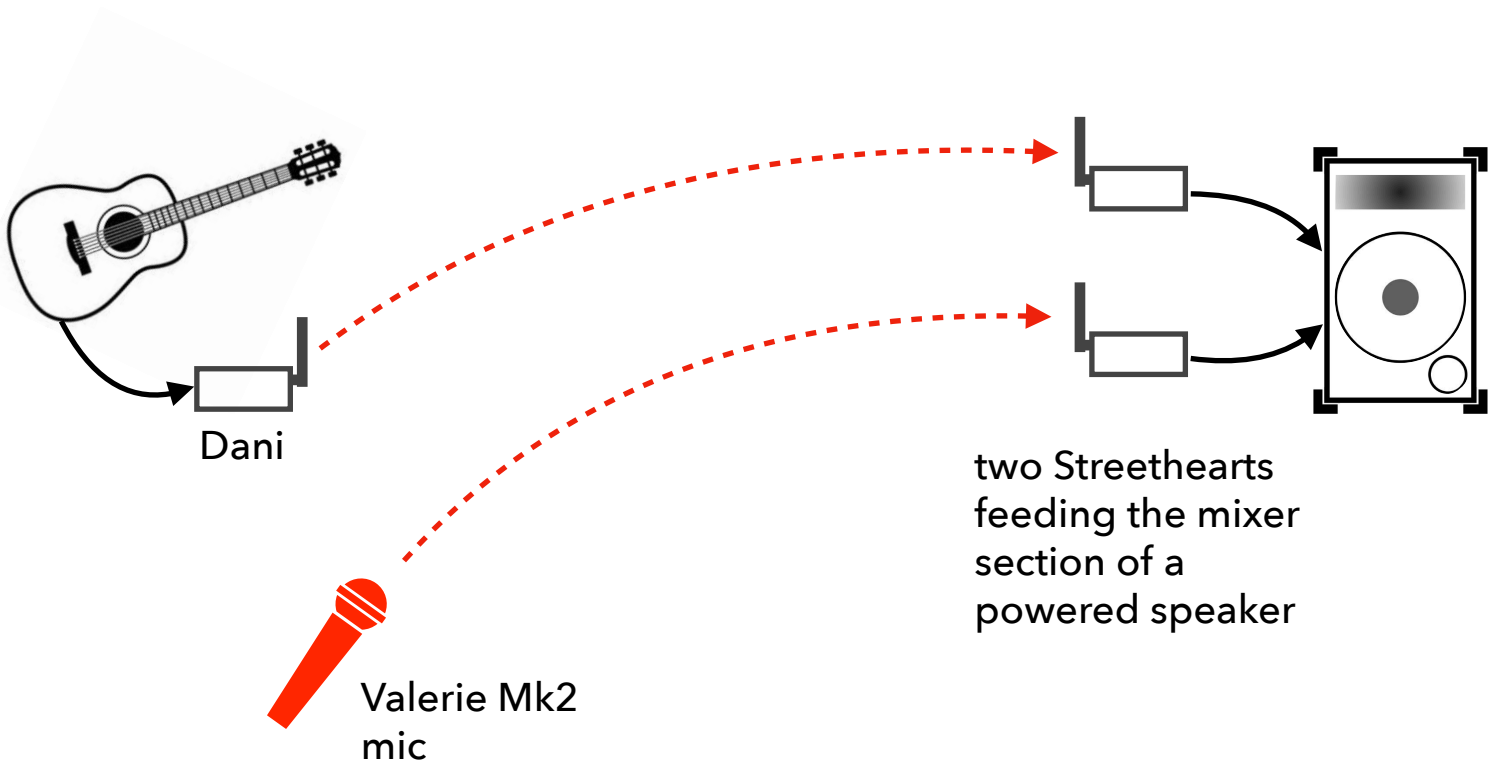
go wireless with your drum pad

drum pad

Streetheart

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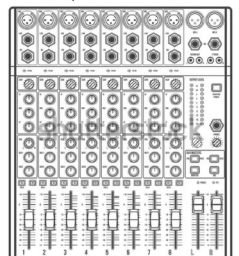
*DI yourself right into the front
of house desk from anywhere
– your sound tech will love you*

don't trust your monitor tech?

drum pad

Streetheart

Streetheart

Dani

any mixer

---
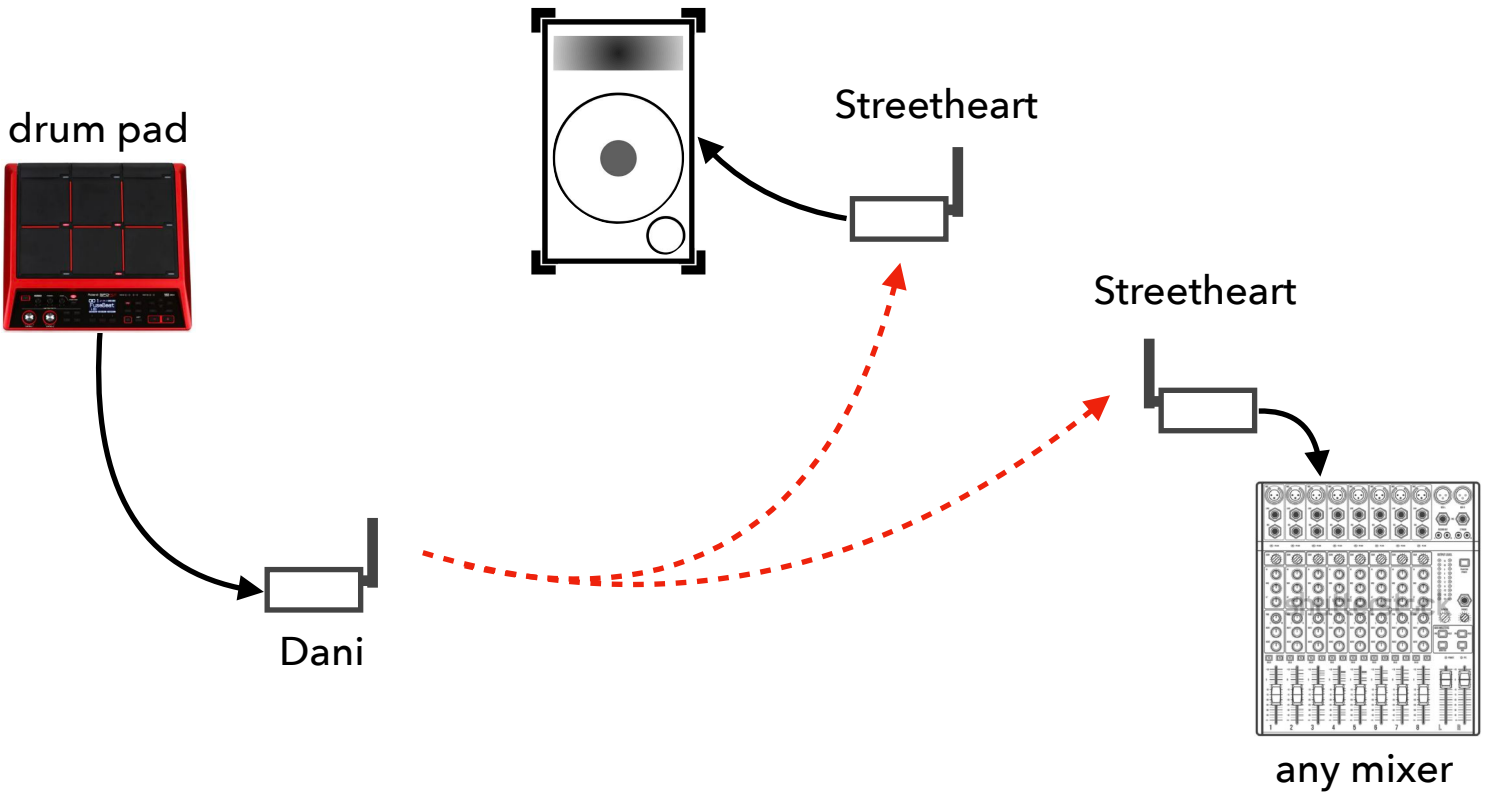
the background music gig that pays in "exposure"

Streetheart

Dani
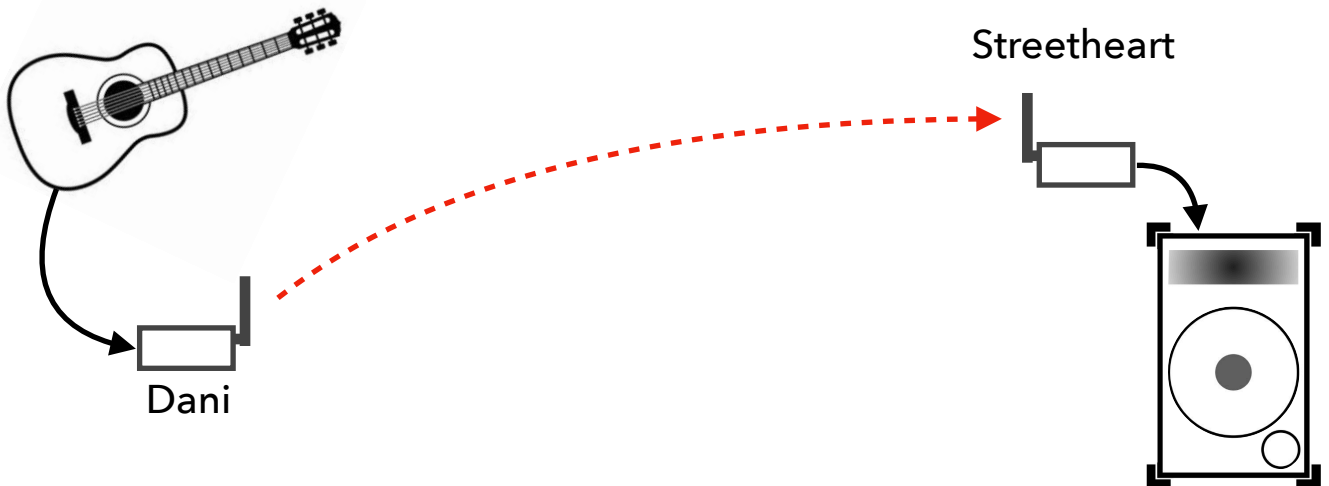
9   *"nah, I don't need help loading gear"*

Jamstack 2
guitar amp

Streetheart

any mixer
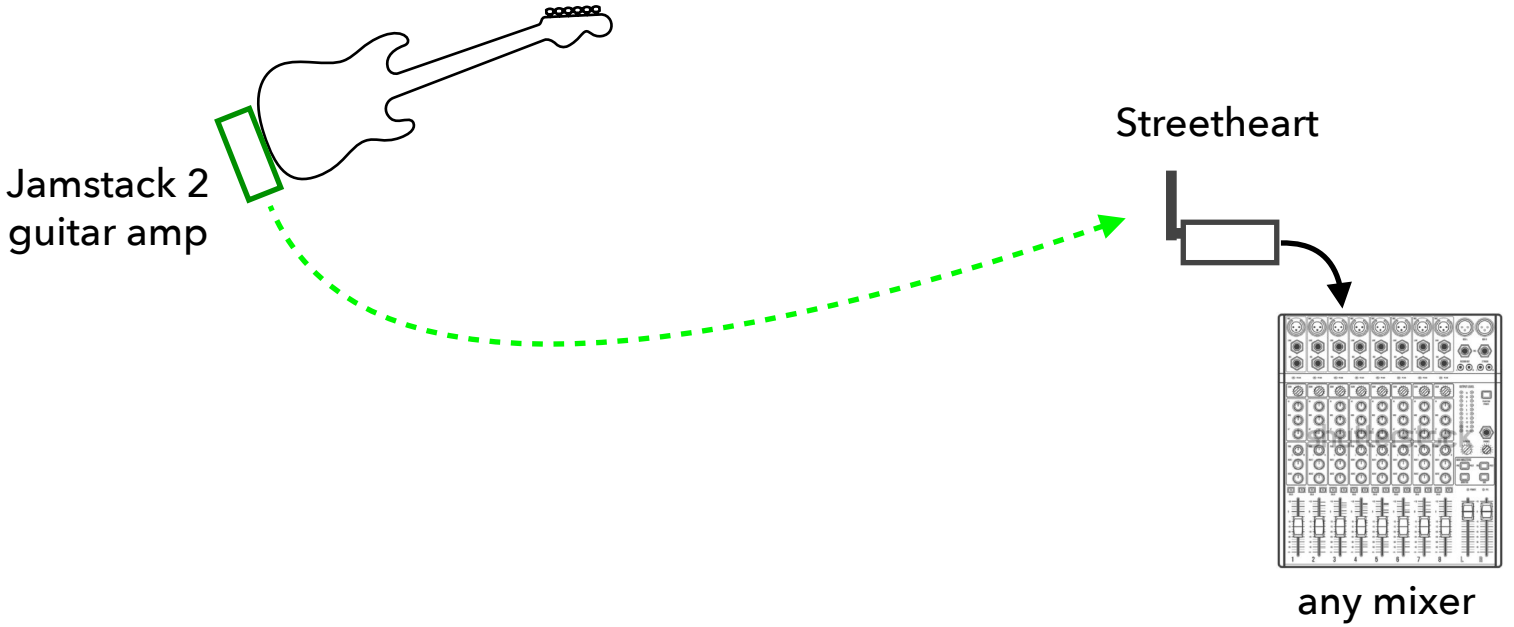
10   *"why doesn't anybody help me load gear?"*

Streetheart

Death from Below

Jamstack 2
guitar amp

Death from Below

Jamstack 2
guitar amp

Streetheart

Rush

any mixer

Jamstack 2
guitar amp

Streetheart

Satellite

any mixer
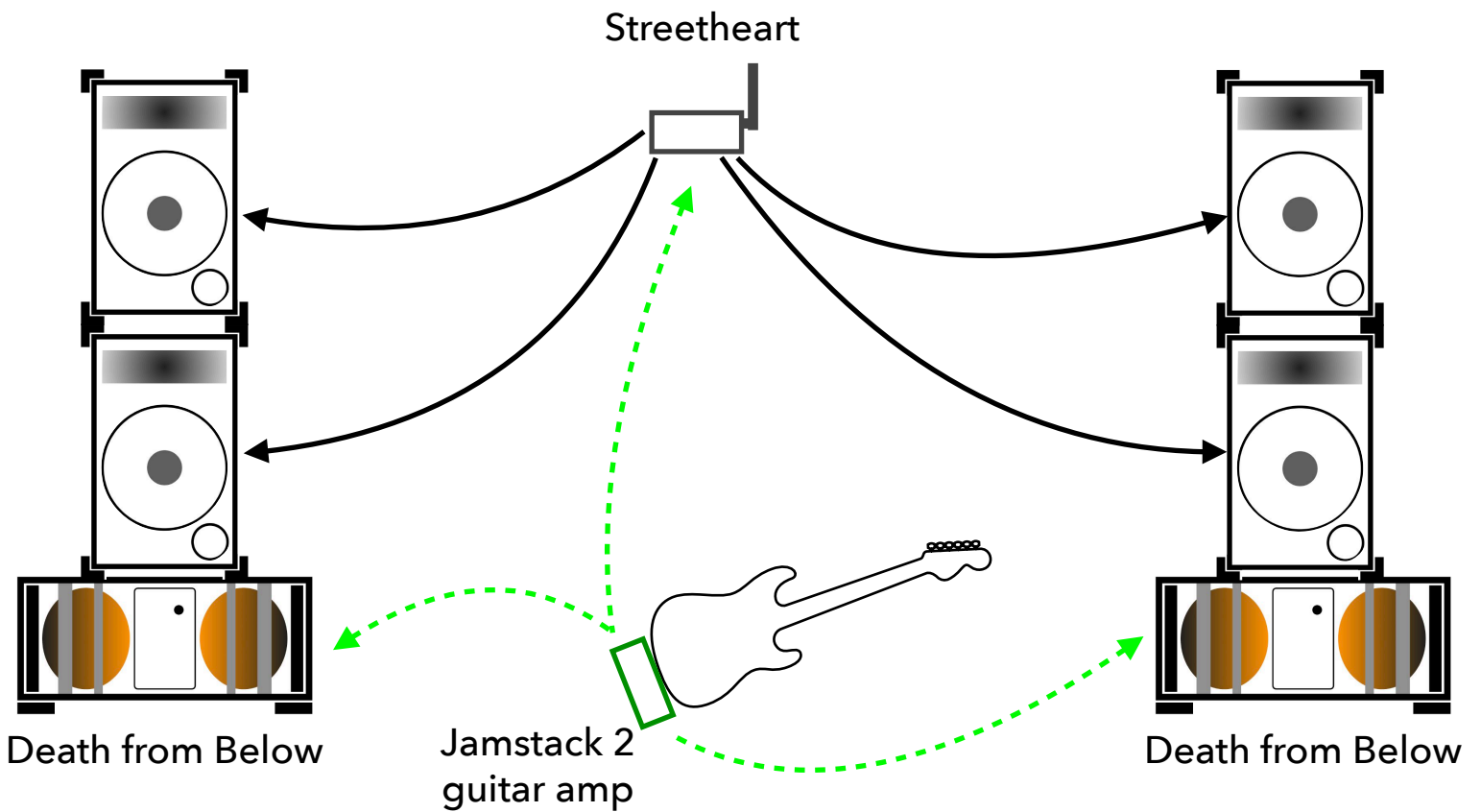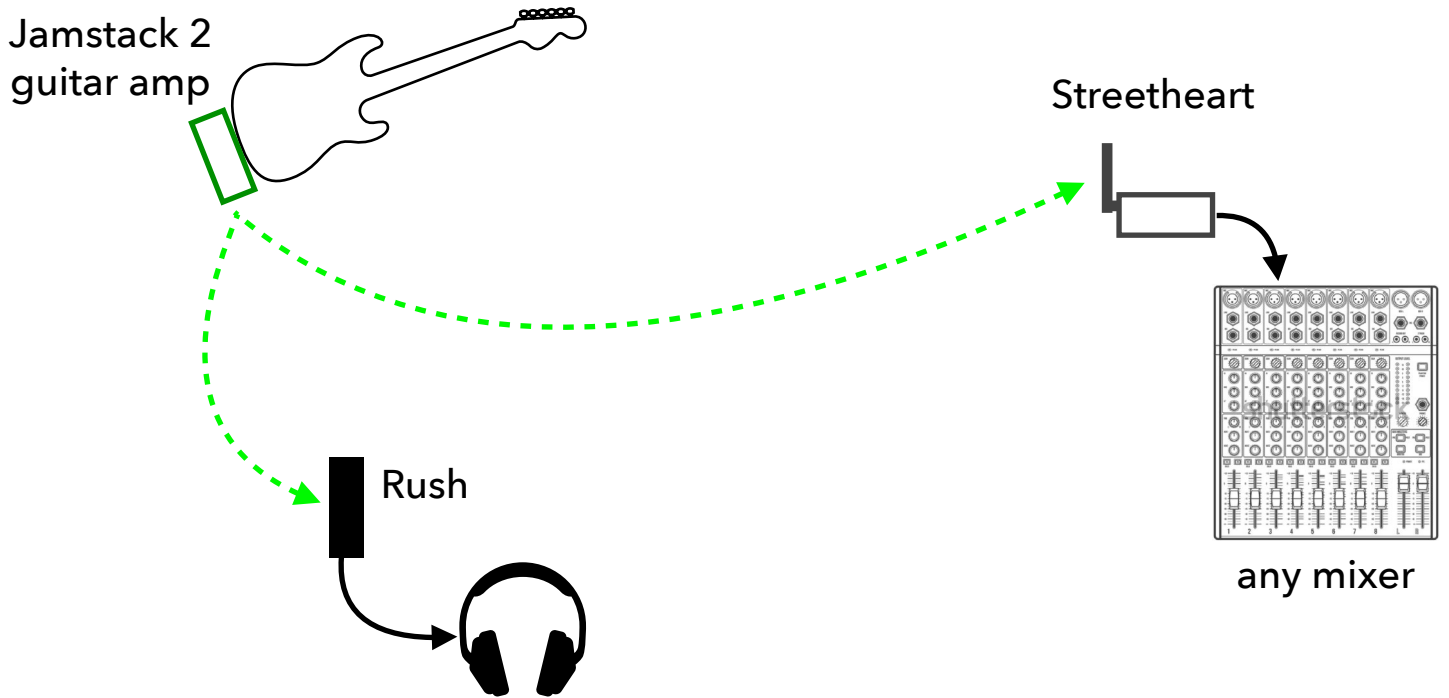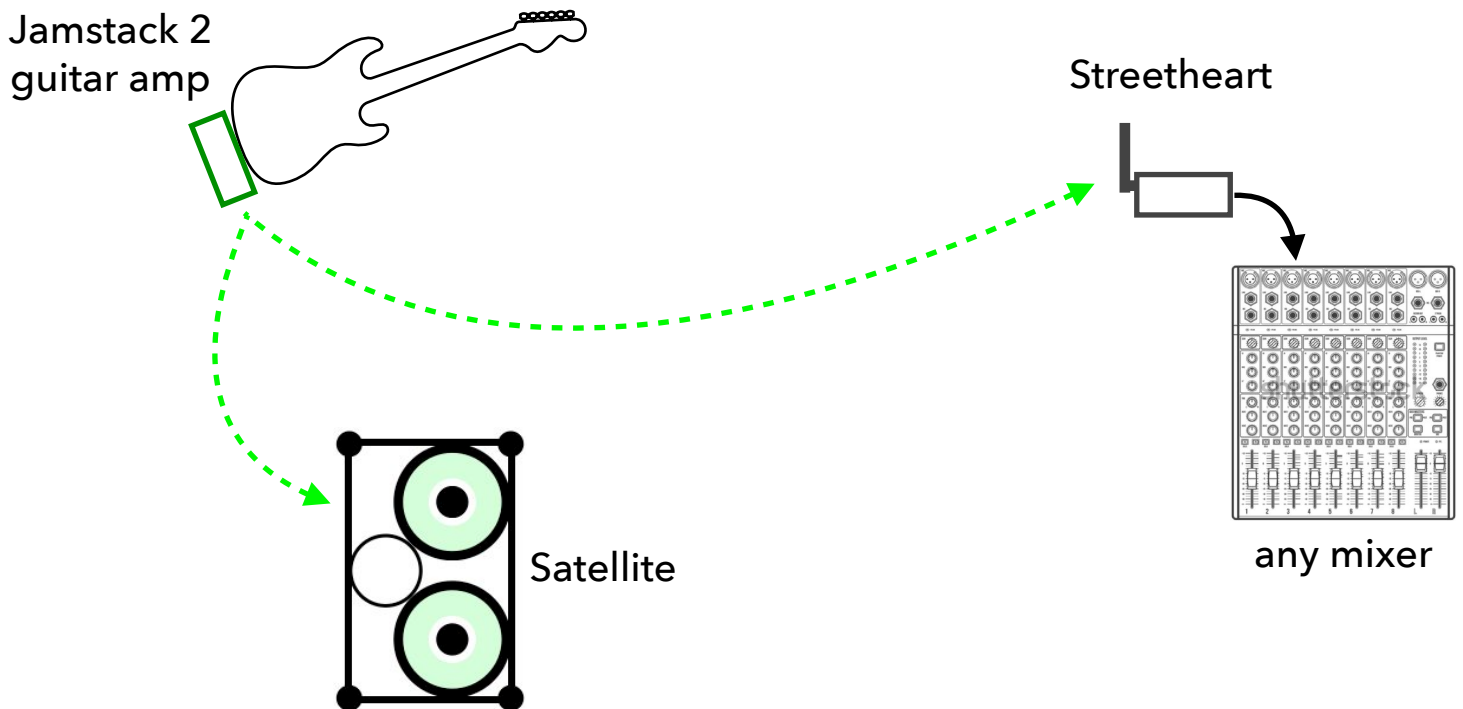
in ear monitors for the drummer

Streetheart

Dani

aux bus out

any mixer

---
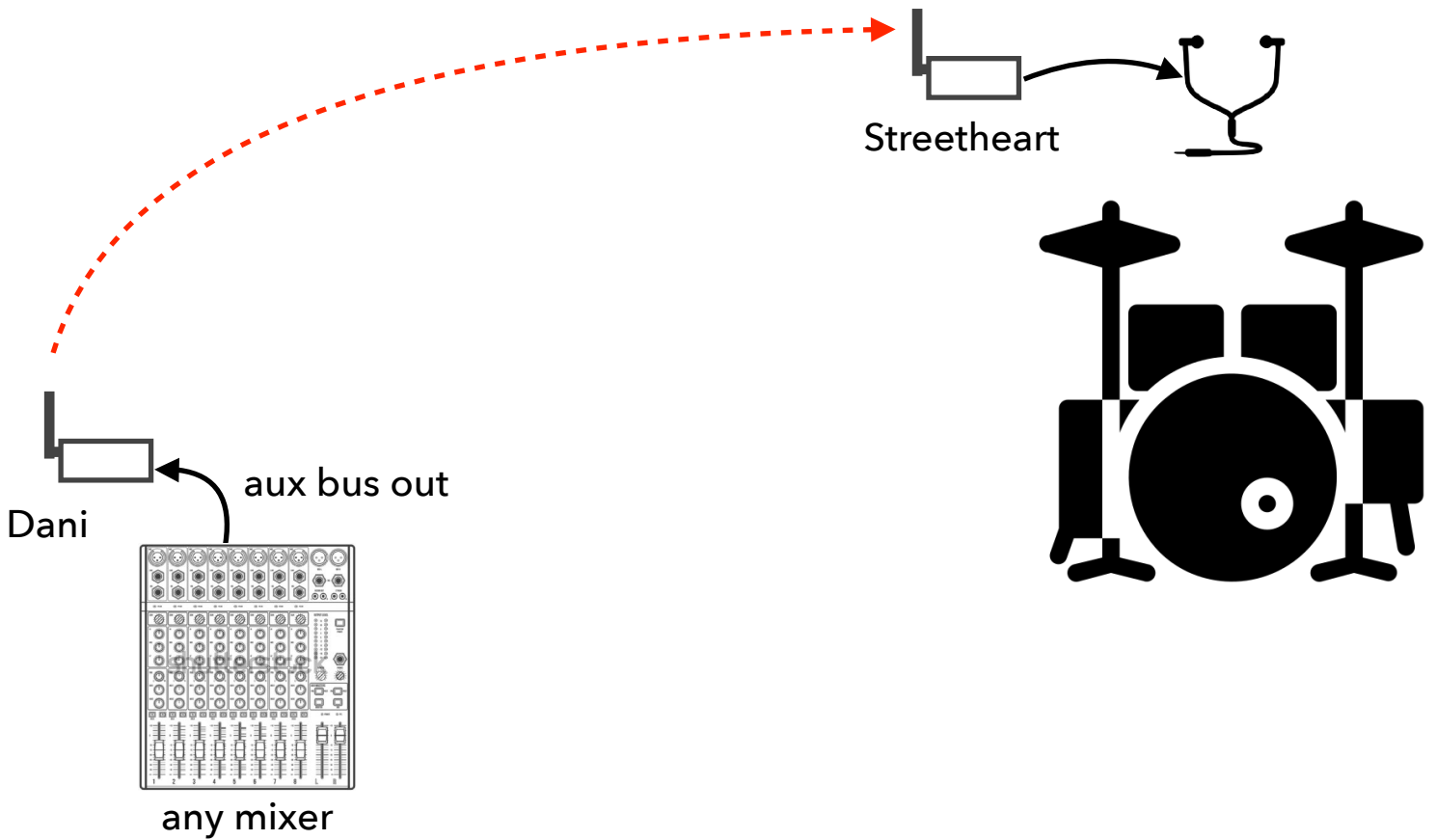
personal monitors for everybody

Helix

Streetheart

Dani Dani

Rush Rush

any mixer
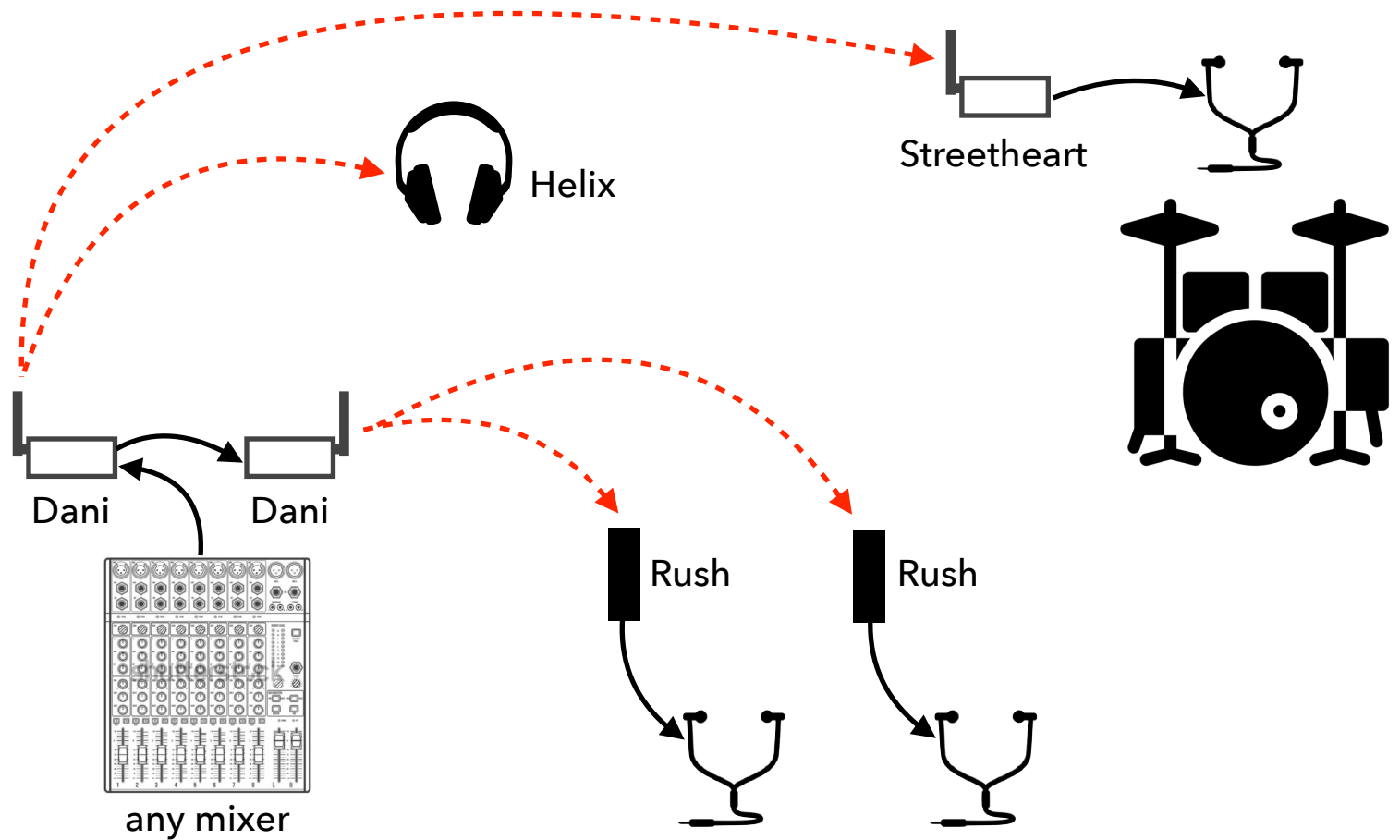
wireless PA with a Cerwin Vega SKAA mixer
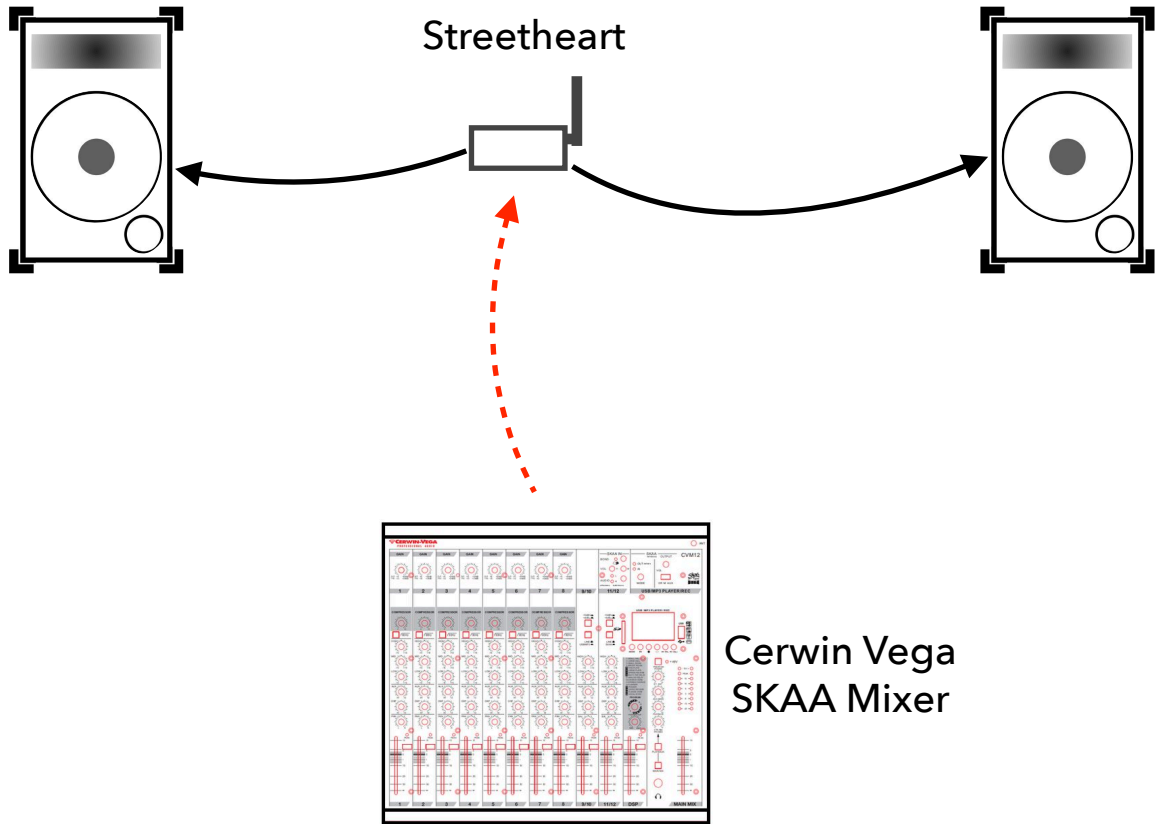
Streetheart

Cerwin Vega
SKAA Mixer

16

add some low end
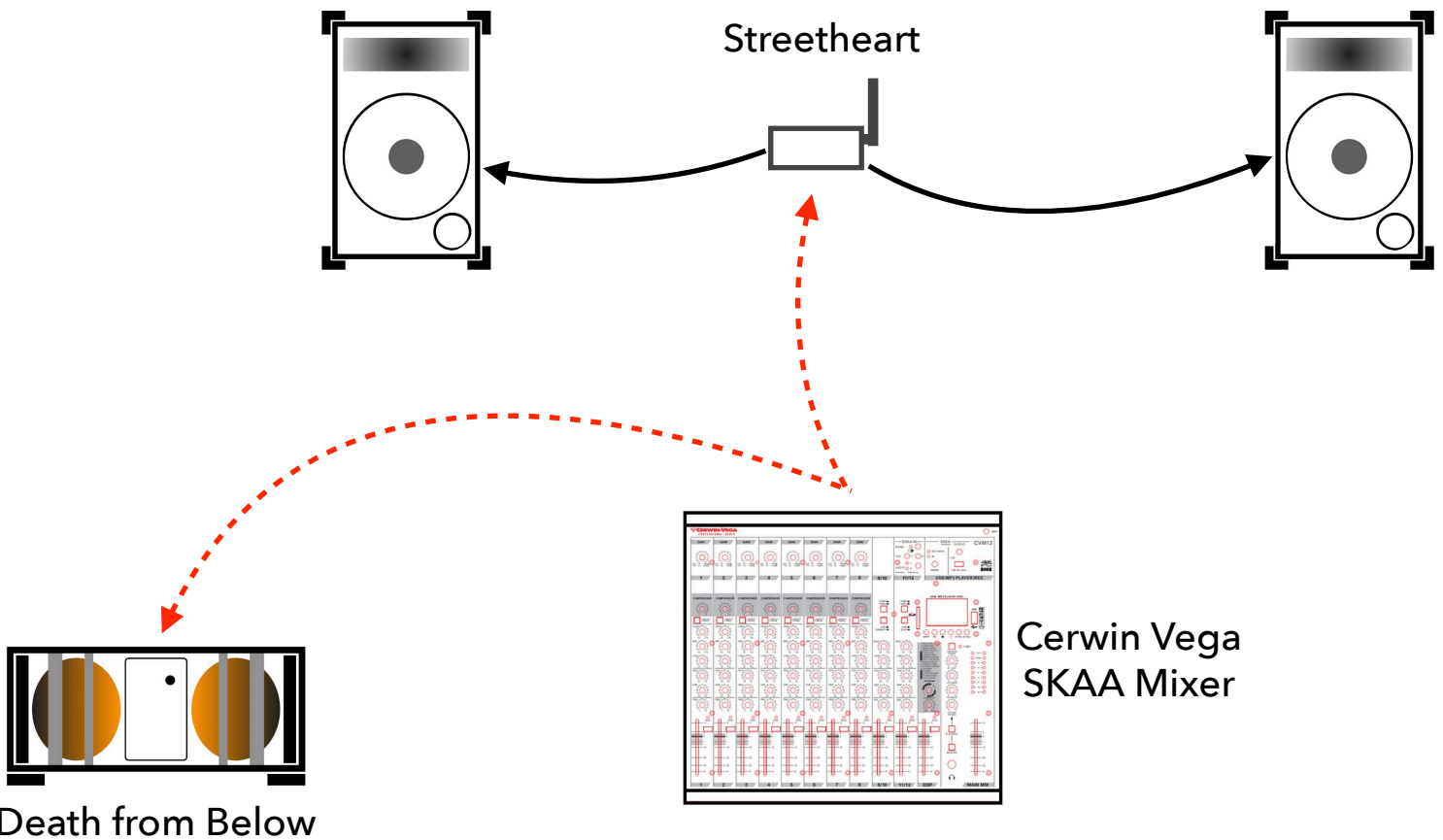
Streetheart

Cerwin Vega
SKAA Mixer

Death from Below

really take it up a notch

Streetheart

Death from Below x 3

Cerwin Vega
SKAA Mixer

---

seriously? that's not enough??

Death from Below x 3

Cerwin Vega
SKAA Mixer

record your front of house audio

Streetheart

Death From Below

Death From Below

Streetheart

computer with
recording
interface

Cerwin Vega
SKAA Mixer
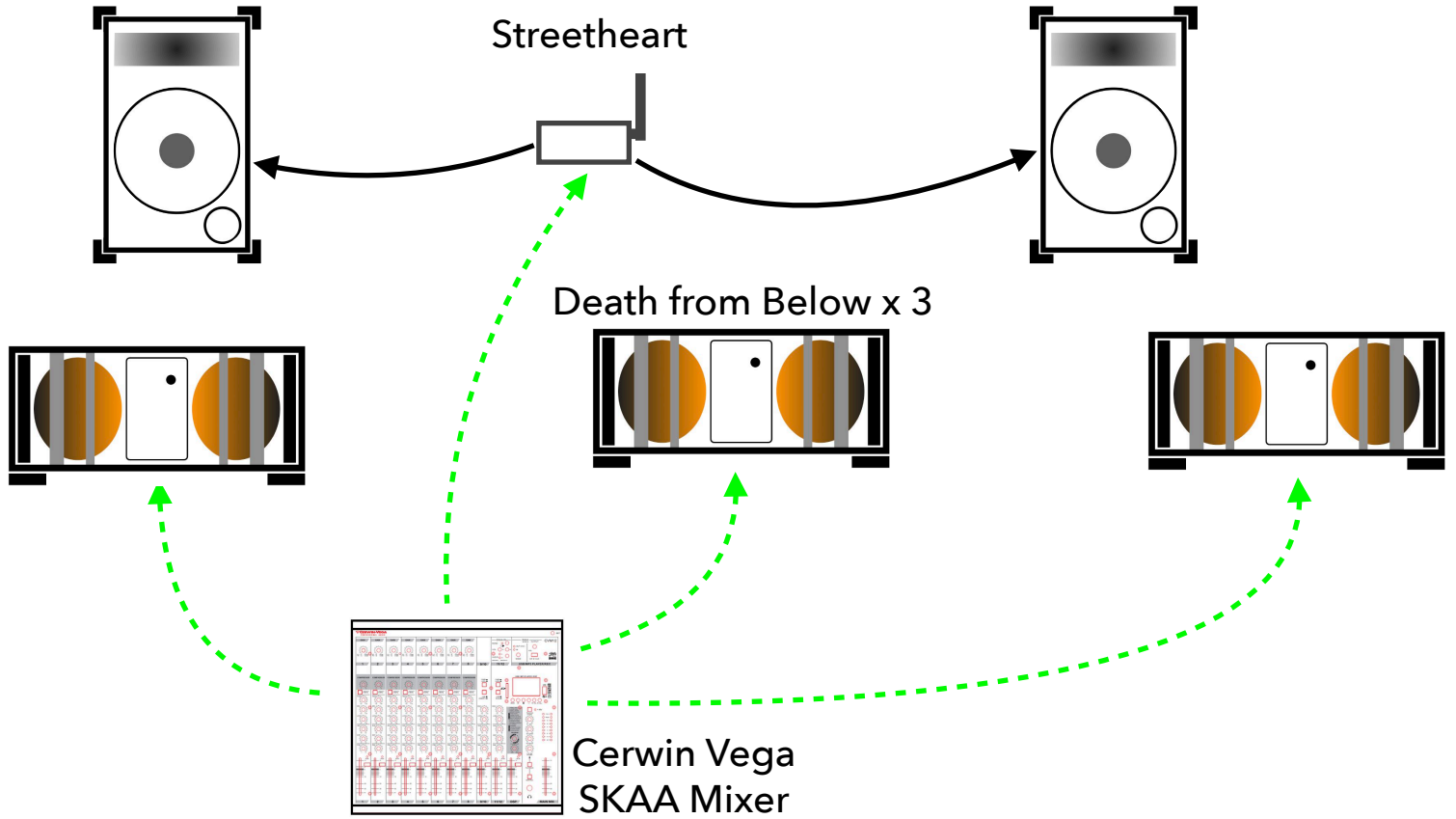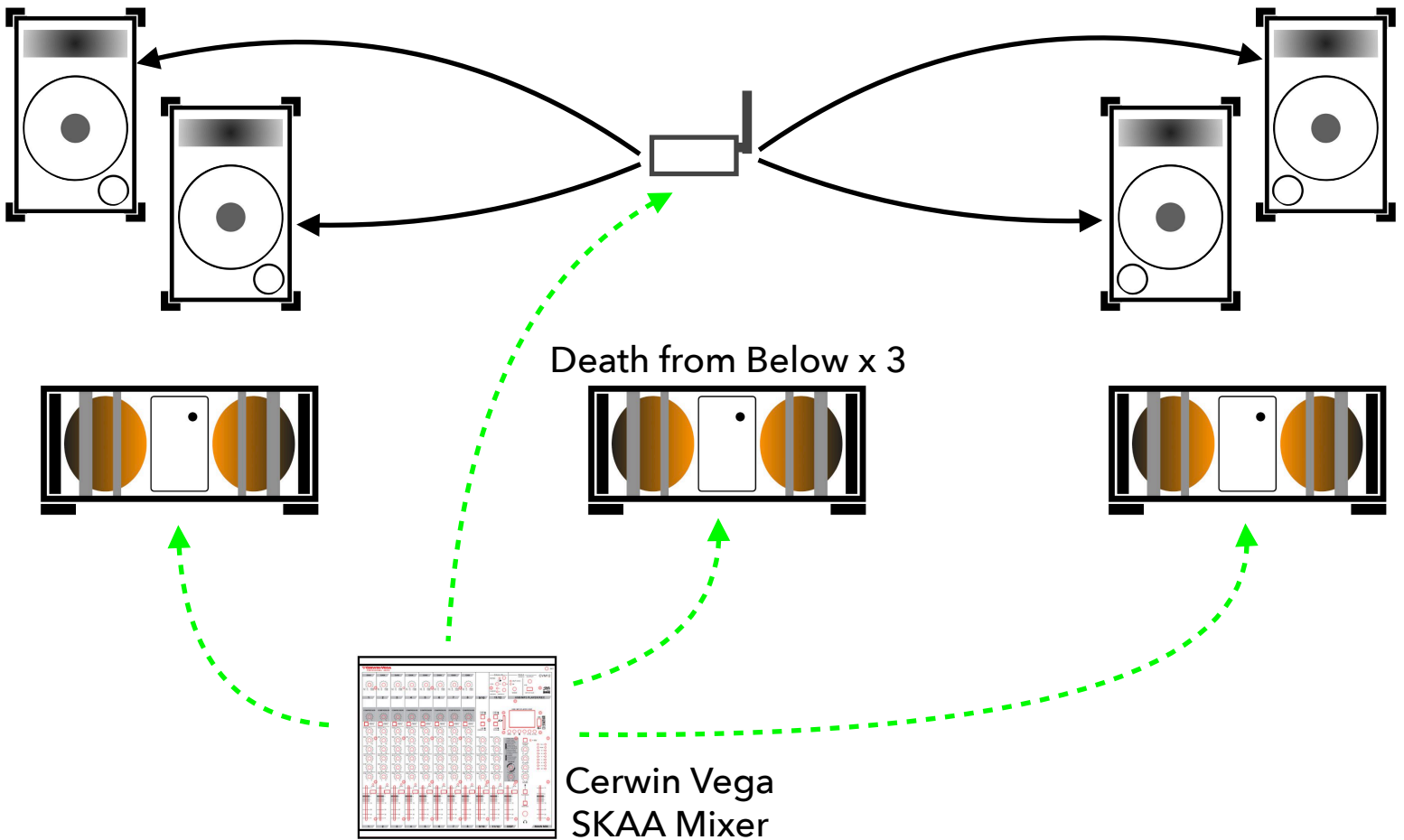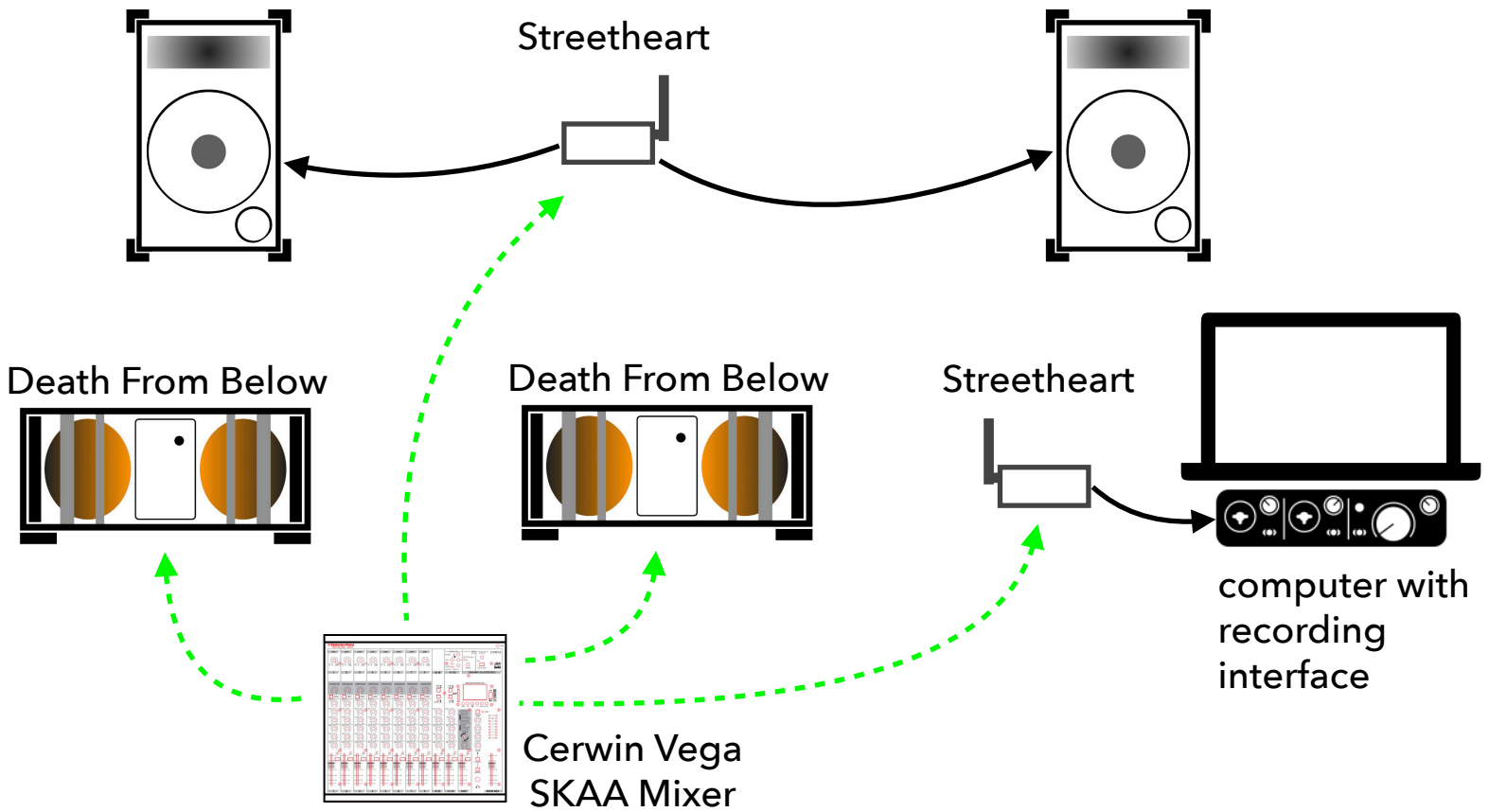
the Grateful Dead called...

Cerwin Vega
SKAA Mixer

4 Streethearts feeding
16 powered speakers

Hub

Valerie Mk2 mic

TS guitar cable

pole mount

Streetheart

Death from Below

XLR

Satellite

Bass

Hub

Jacqueline

Death from Below

Dani

Death from Below

Satellite

Streetheart

Streetheart

powered floor
monitor (Aux 1)

powered floor
monitor (Aux 2)

Dani fed from Aux 1
and Aux 2 monitor outs

mixer with ≥2 aux busses

Valerie Mk2
mic

*Cervin Vega SKAA Mixers
can act as either a SKAA
Transmitter or Receiver*

Streetheart

Cerwin Vega
SKAA Mixer

any mixer

feeding 8 rack amps in stereo

front of
house rack
amps LEFT

2 Streethearts

front of
house rack
amps RIGHT

SKAA Pro

any mixer

Dani

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

mains & aux-fed subs

Streetheart

front of house
amps

subwoofer
(bass cab) amps

Ch 1

Ch 2

Ch 1

Ch 2

SKAA Pro

any mixer

Dani

Mains (mono mix) is
fed to Dani Ch 1 and
the subwoofer aux
out to Dani Ch 2
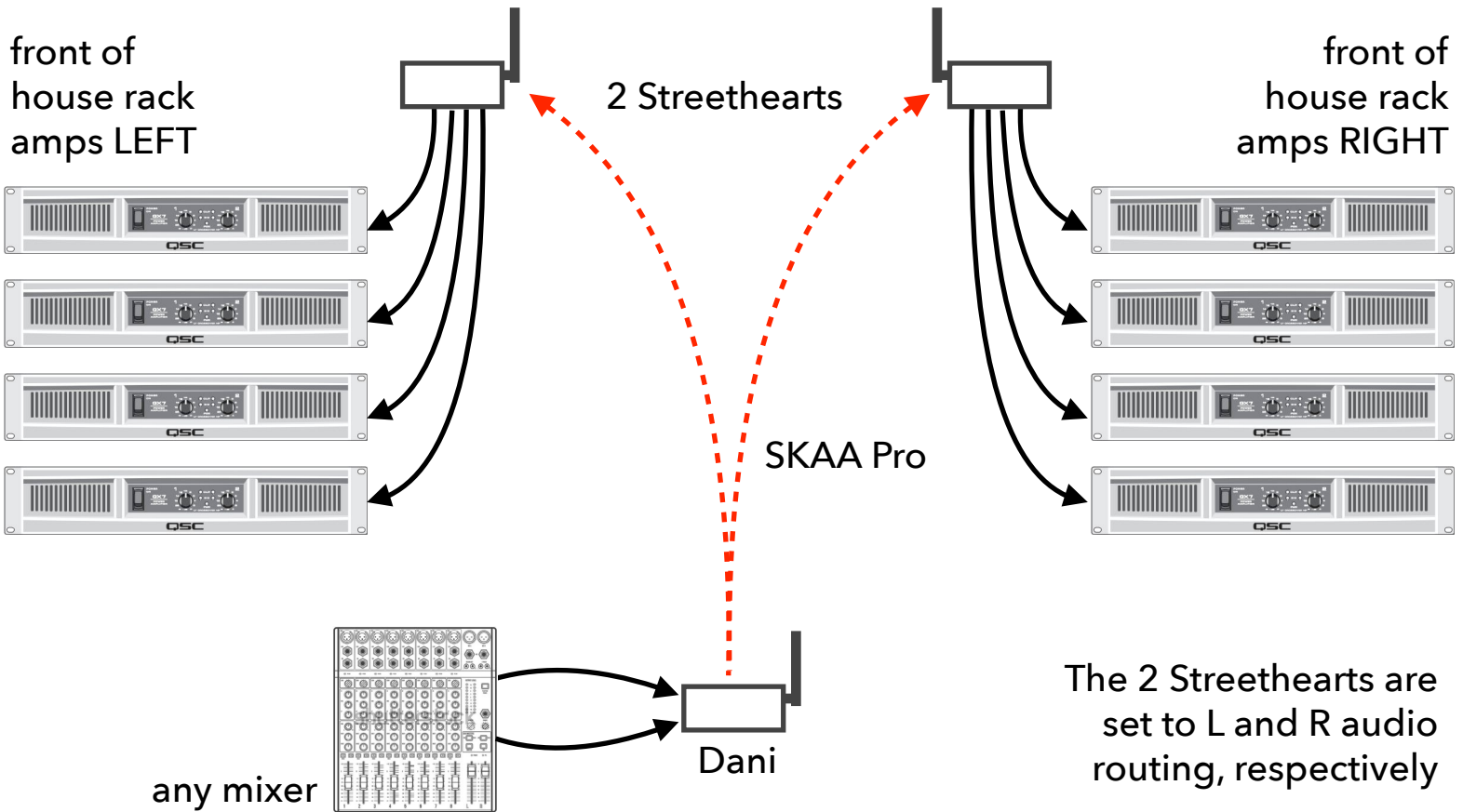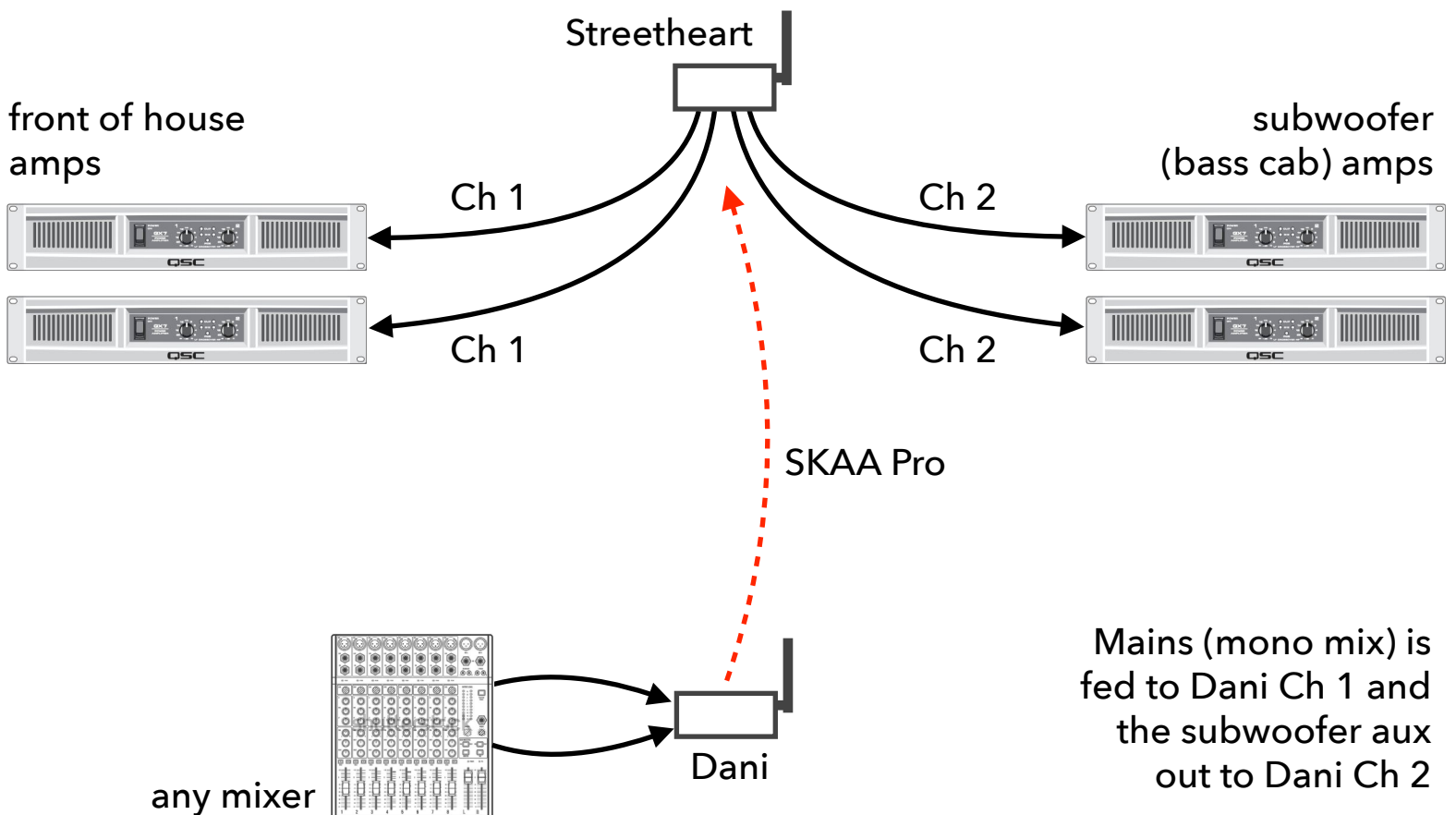
front of house and monitors with one Dani

front of house amps

2 Streethearts

powered floor monitors

SKAA Pro

any mixer

Dani

the 2 Streethearts are set to L and R audio routing, respectively
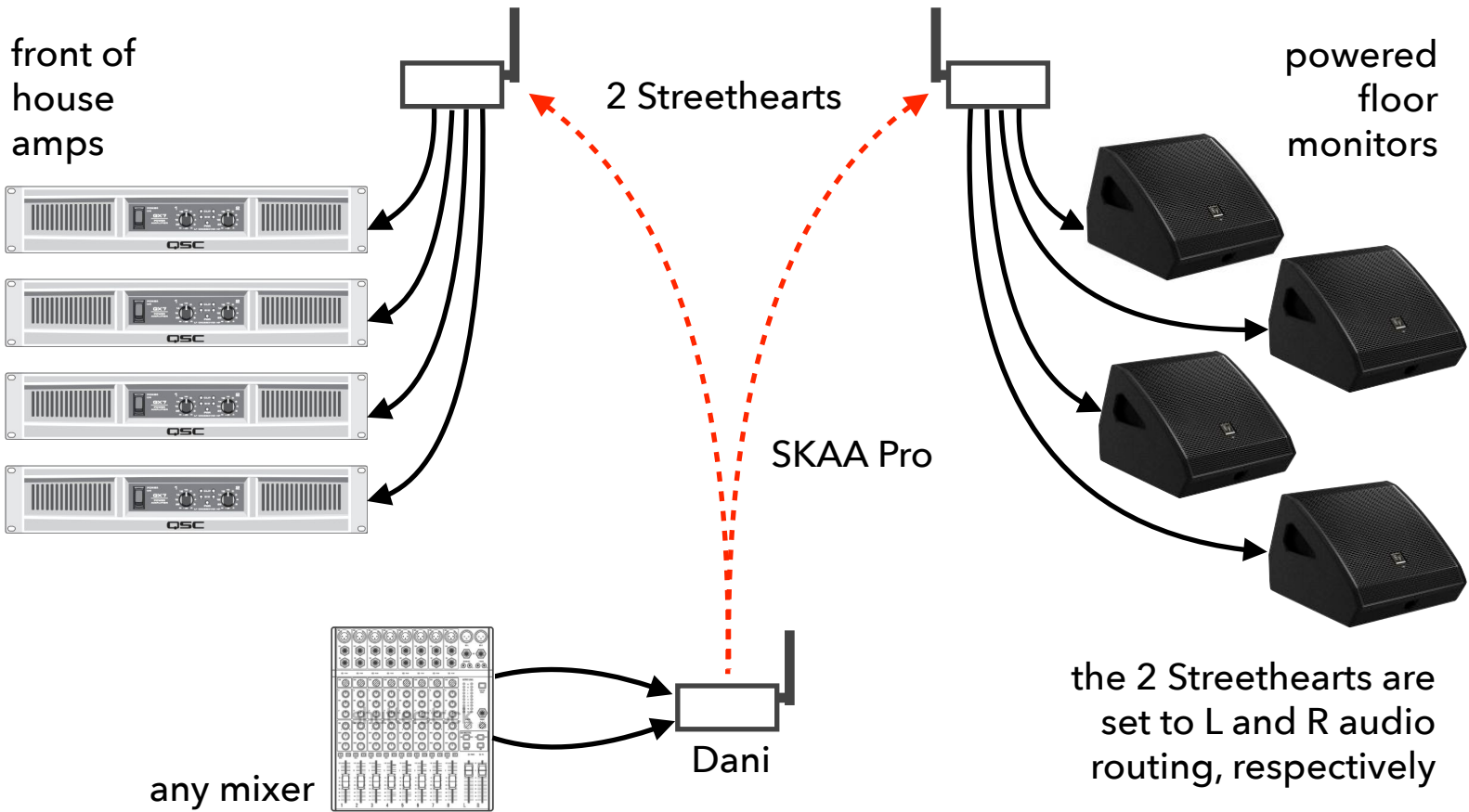
beam forming subwoofer array

Plan View

Stage

1.78 m

3

Audience

full-range speakers eg. Soundboks, Stage One or any other

Dillinger Labs DFB subwoofer set to Time Align setting 3 and EQ setting 0

a powered sub fed by Streetheart

both Streetheart and the DFB are fed by the same Dani Transmitter

STUDIO

DILLINGER LABS

what, me worry about studio cables?

Dani

Streetheart

computer with
recording interface

what, me wire up the live room?

Dani

Streetheart

computer with
recording interface

500 series rack

Dani

thin & lifeless

fat & gooey

recording gear

singer's Helix wireless SKAA headphones

Streetheart

Streetheart

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

Dani

Streetheart

use a pair of SKAA monitors

Cerwin Vega
SKAA
Monitors

Dani

Streetheart

- -
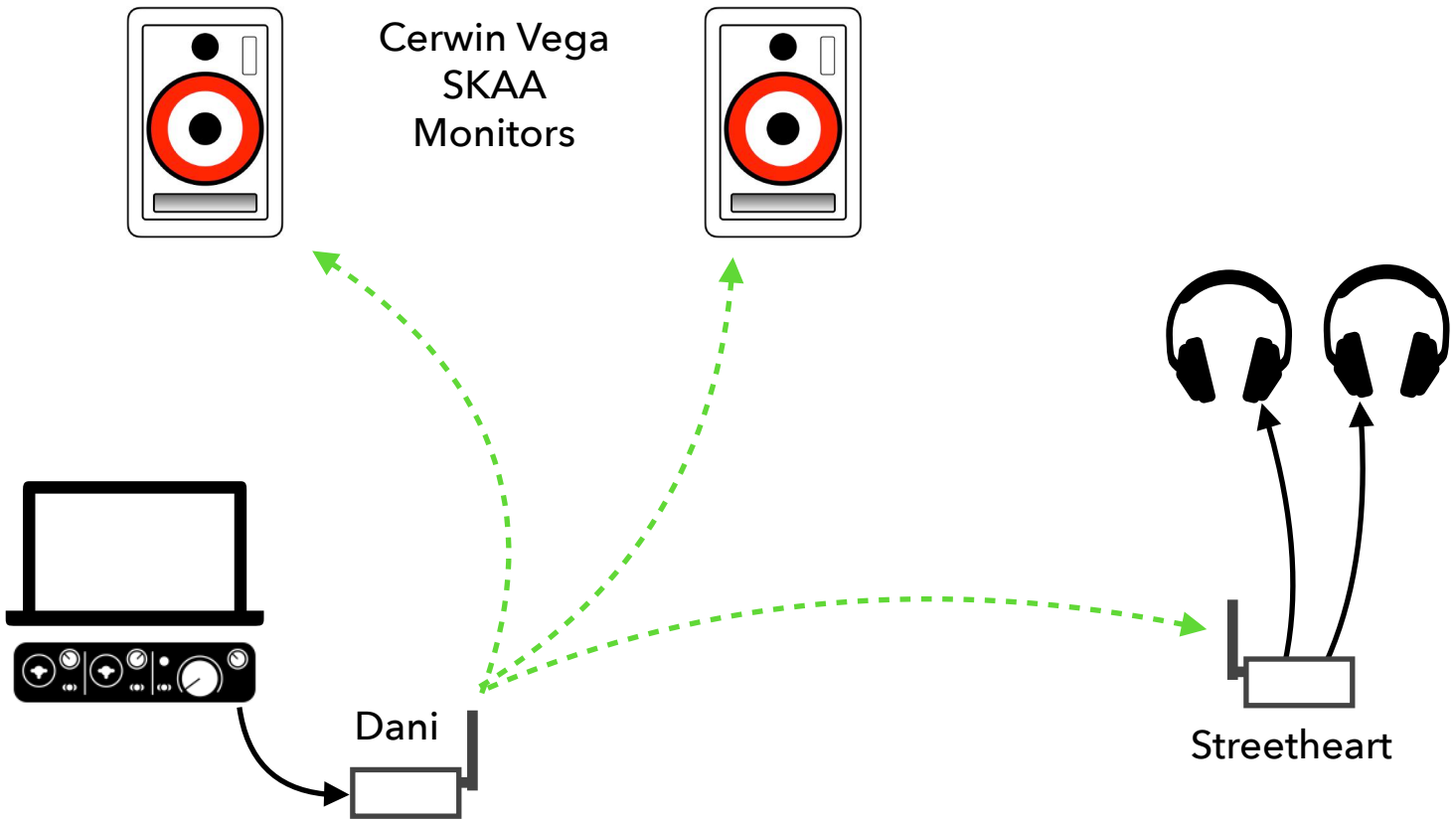
add a playback speaker for your live room

Cerwin Vega
SKAA
Monitors

Streetheart's audio routing feature can mix down L and R to mono

Dani

Streetheart

classic 2.1 monitoring

Streetheart

Dani

Death from Below

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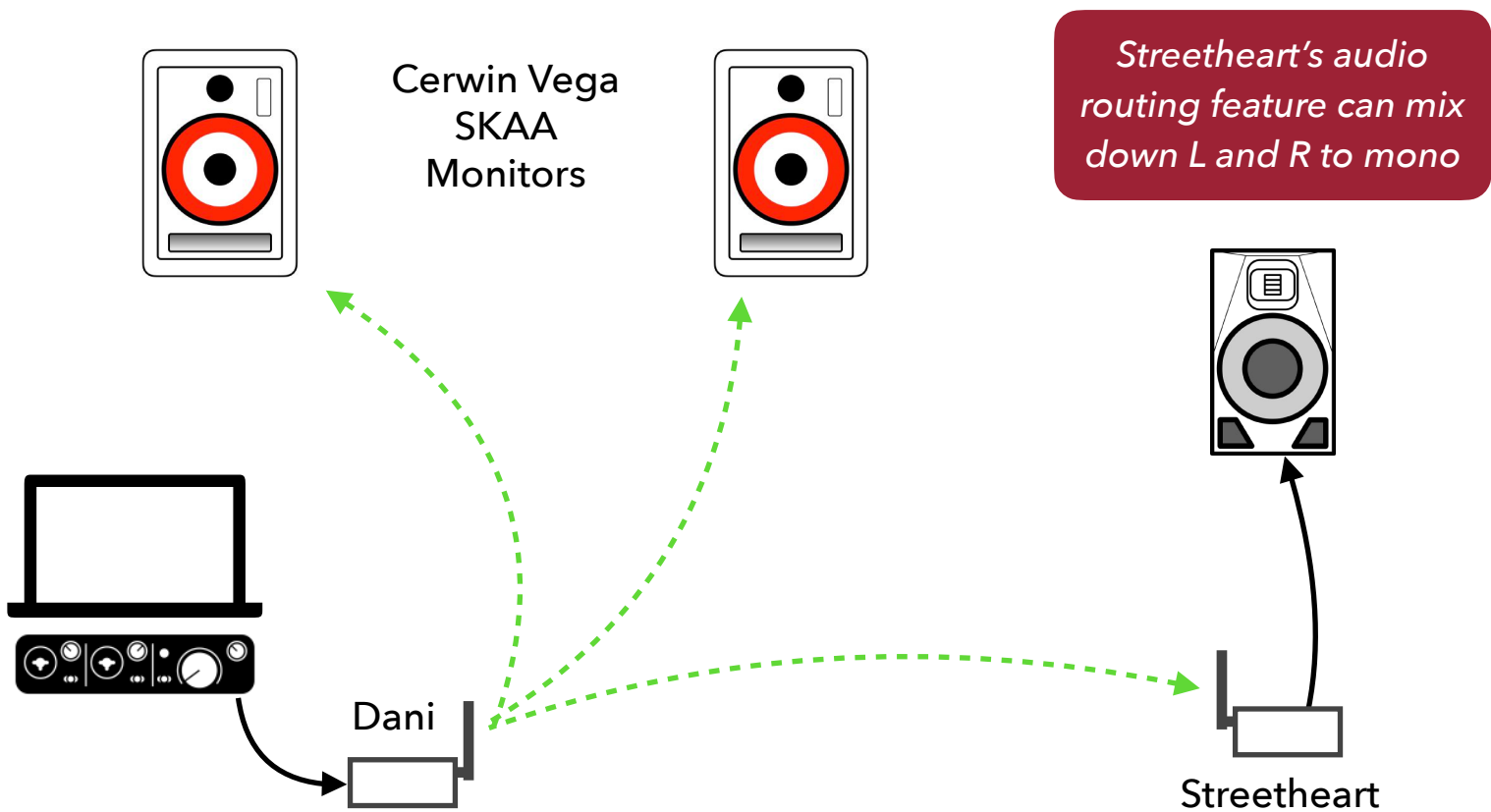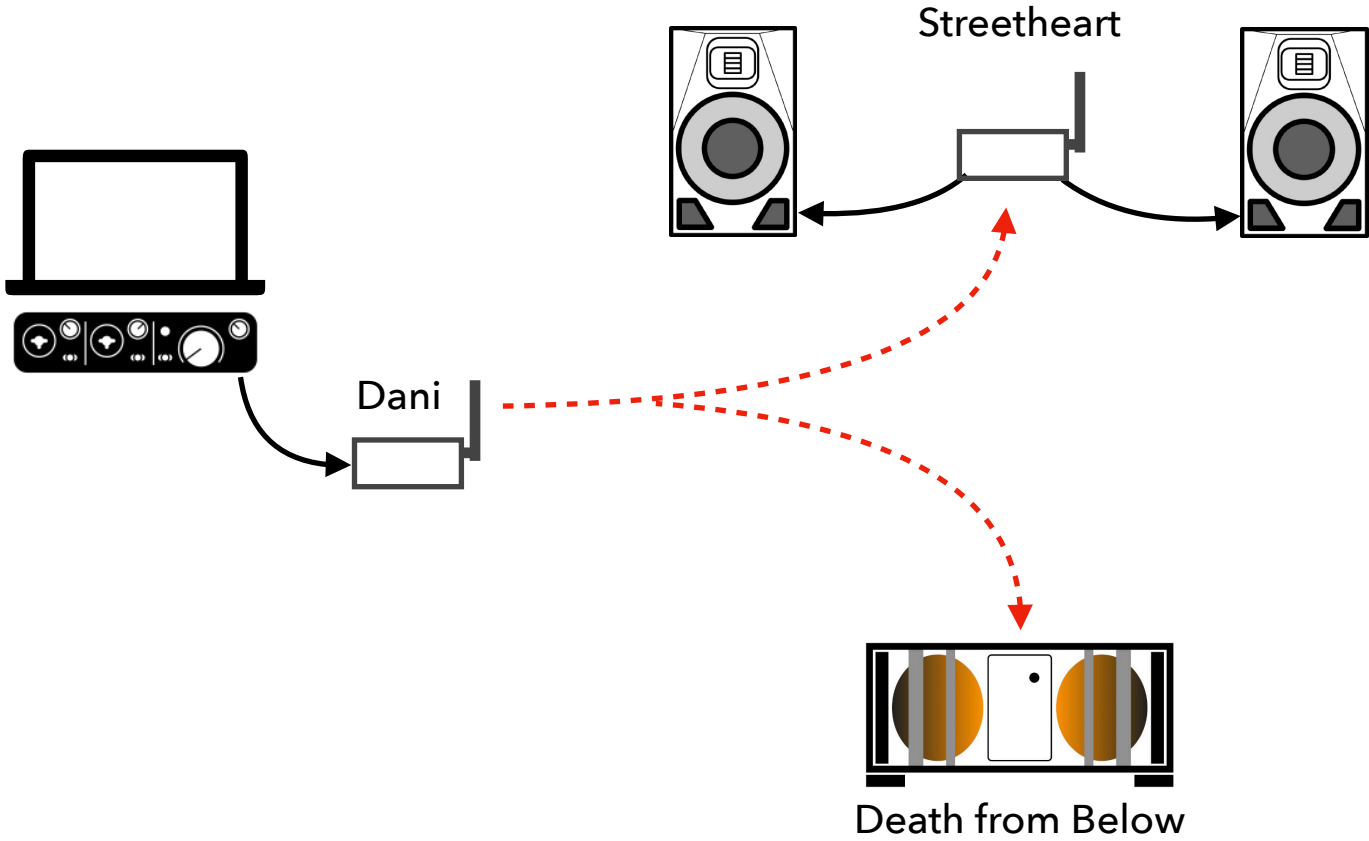
or feed DFB from its own DAW output
(like a boss)

Streetheart

Dani x 2

this lower Dani gives you a dedicated sub volume knob

Death from Below

duo recording session

Dani

Bass or Guitar

Streetheart x 2

Jacqueline

---
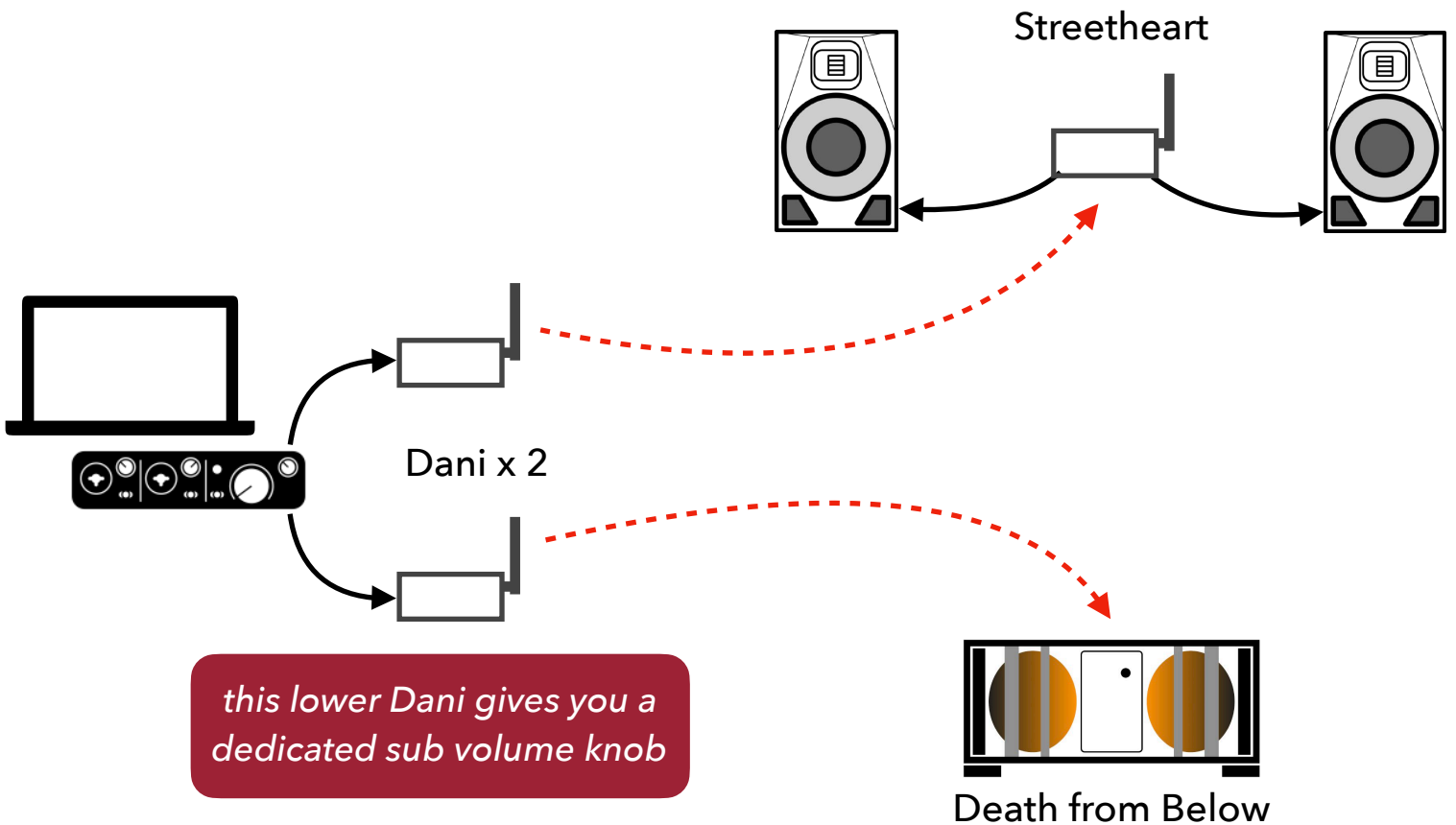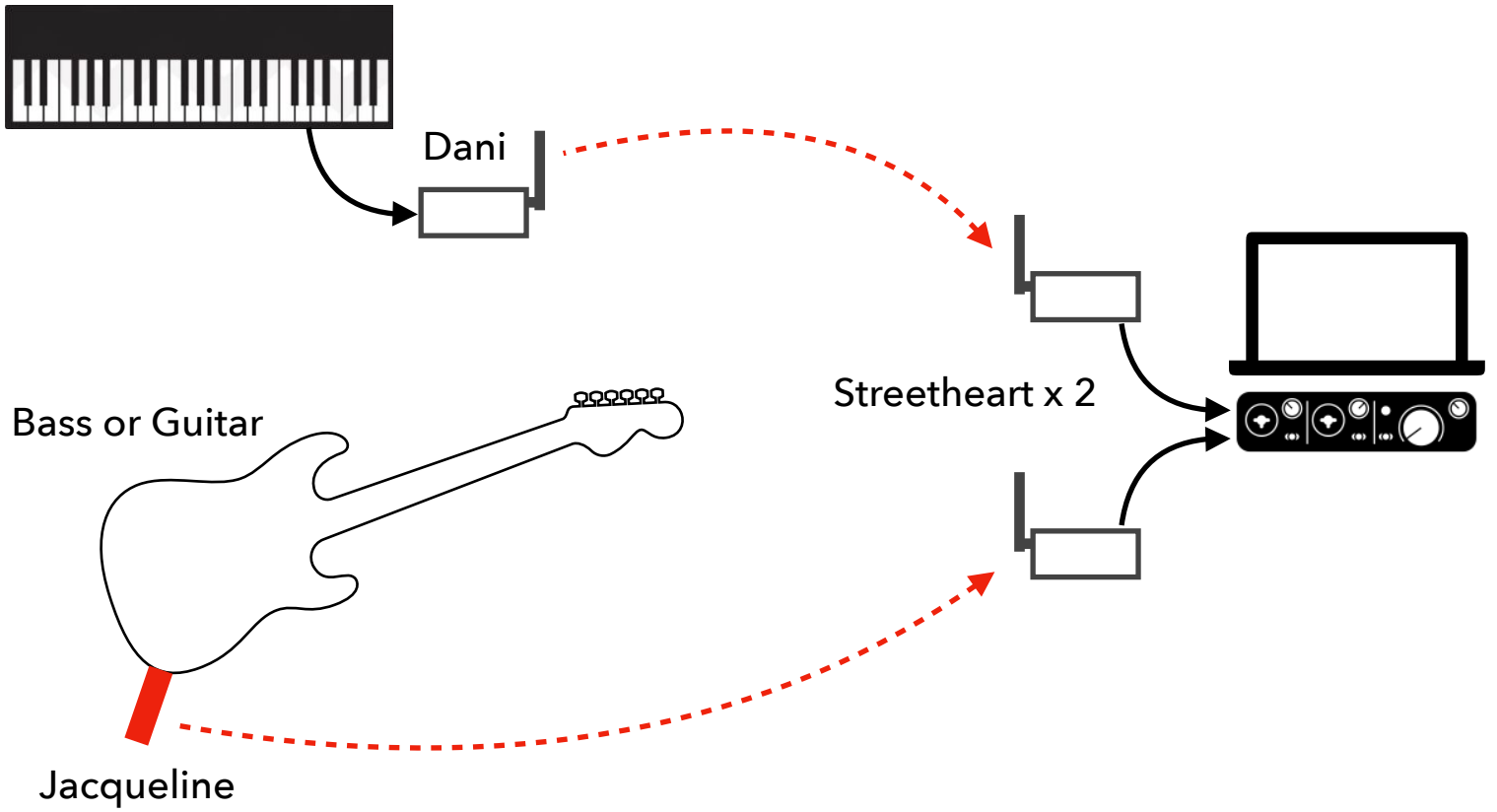
just put those new monitors 'on credit'

Cerwin Vega SKAA monitors

Satellite

Hub

Dani

Streetheart x 2

XLR x2

Jacqueline

Dani

Streetheart x 2

ambiance

Valerie Mk2 mic

Dani

Streetheart

Dani

Streetheart

Split switch lets 2 performers each have a custom cue mix
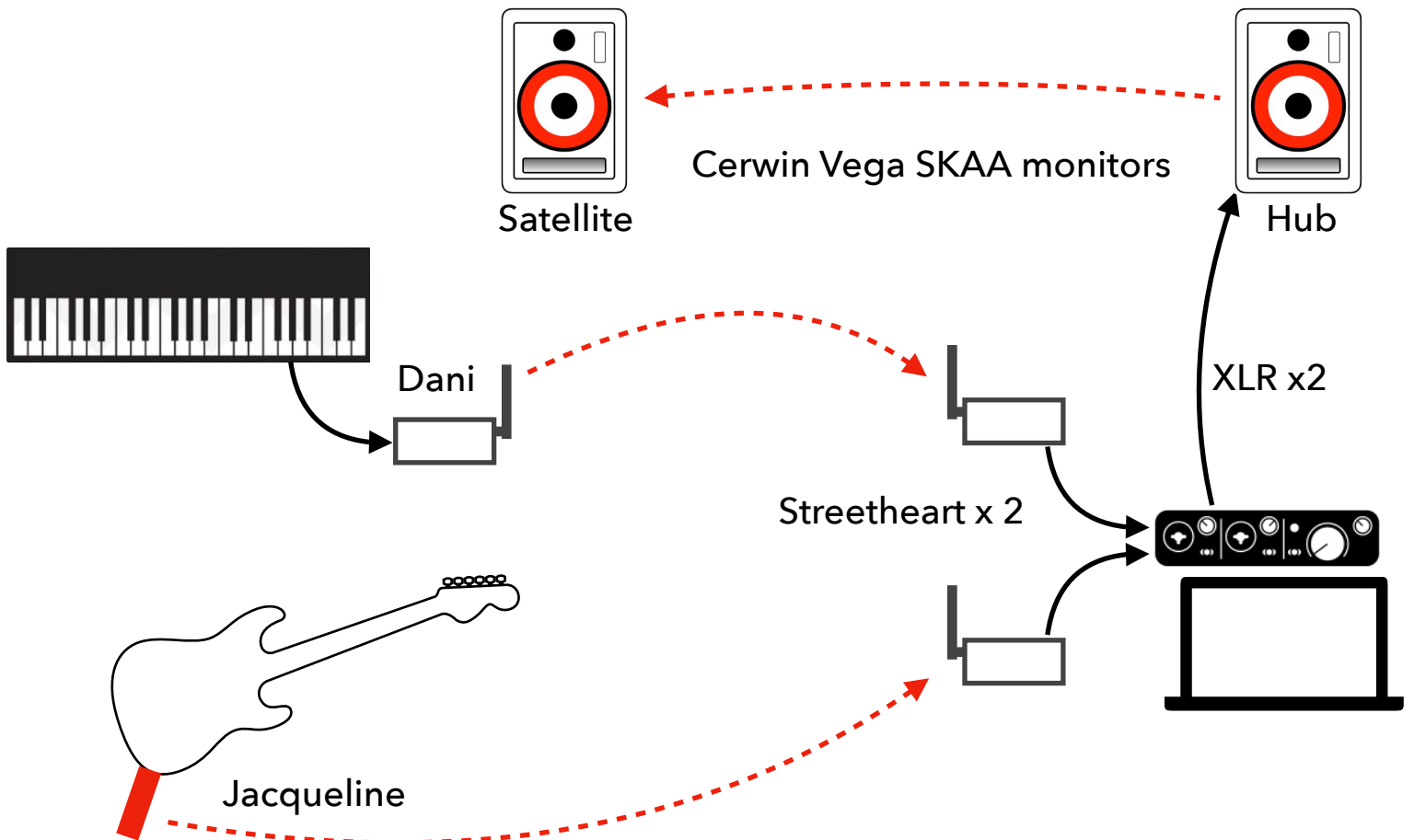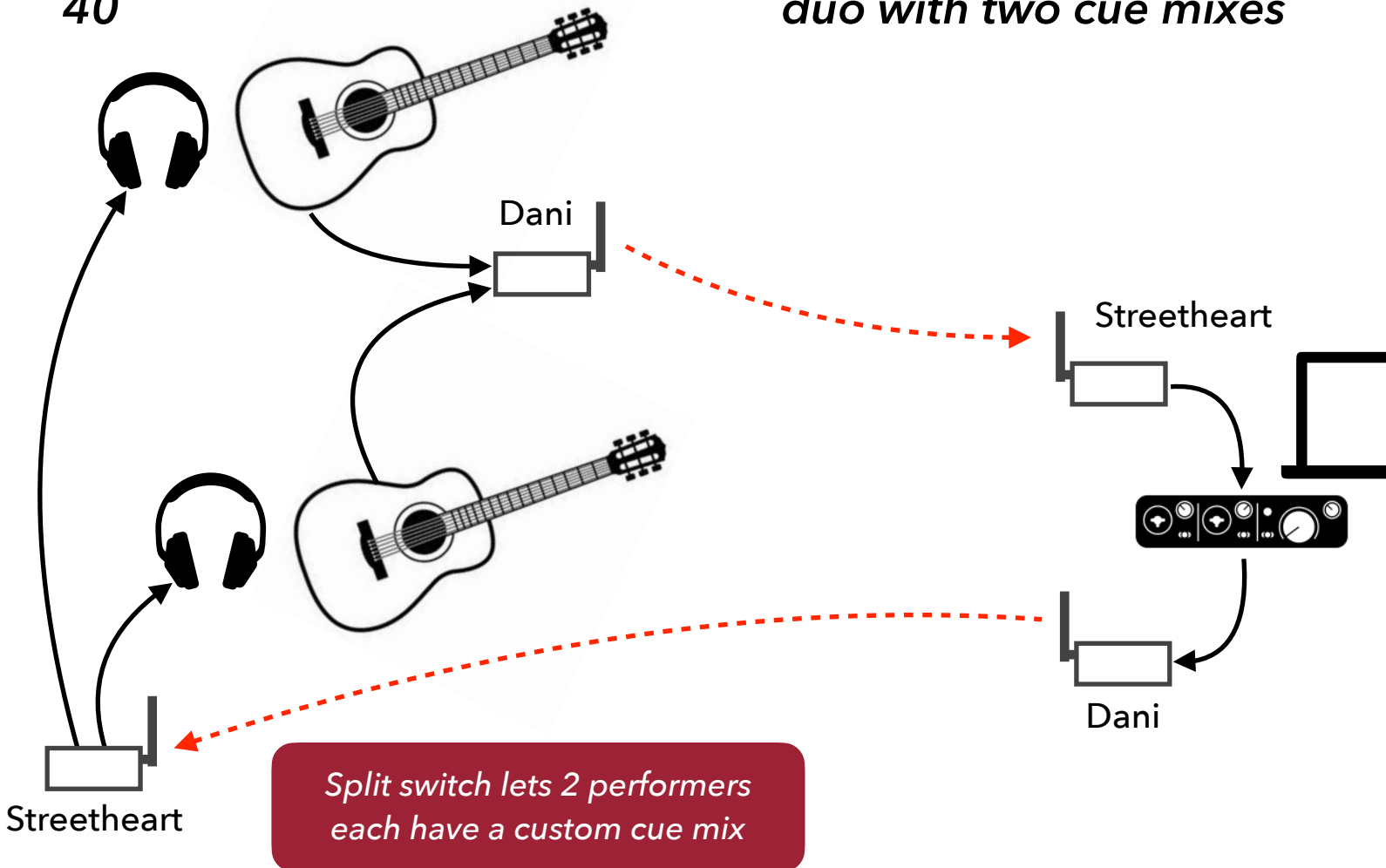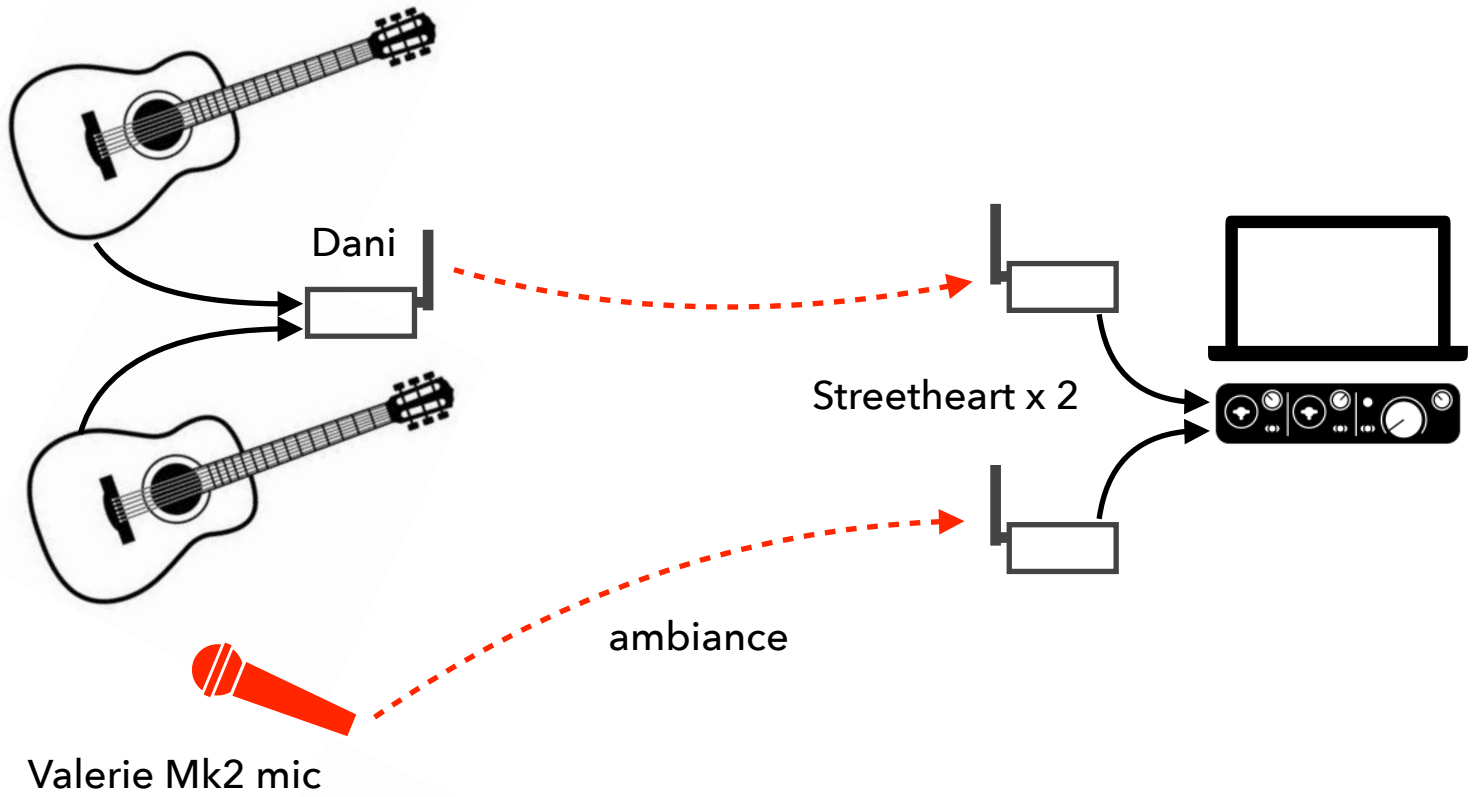
41   *gang vocals under the stairs*

XLR

Dani

Streetheart

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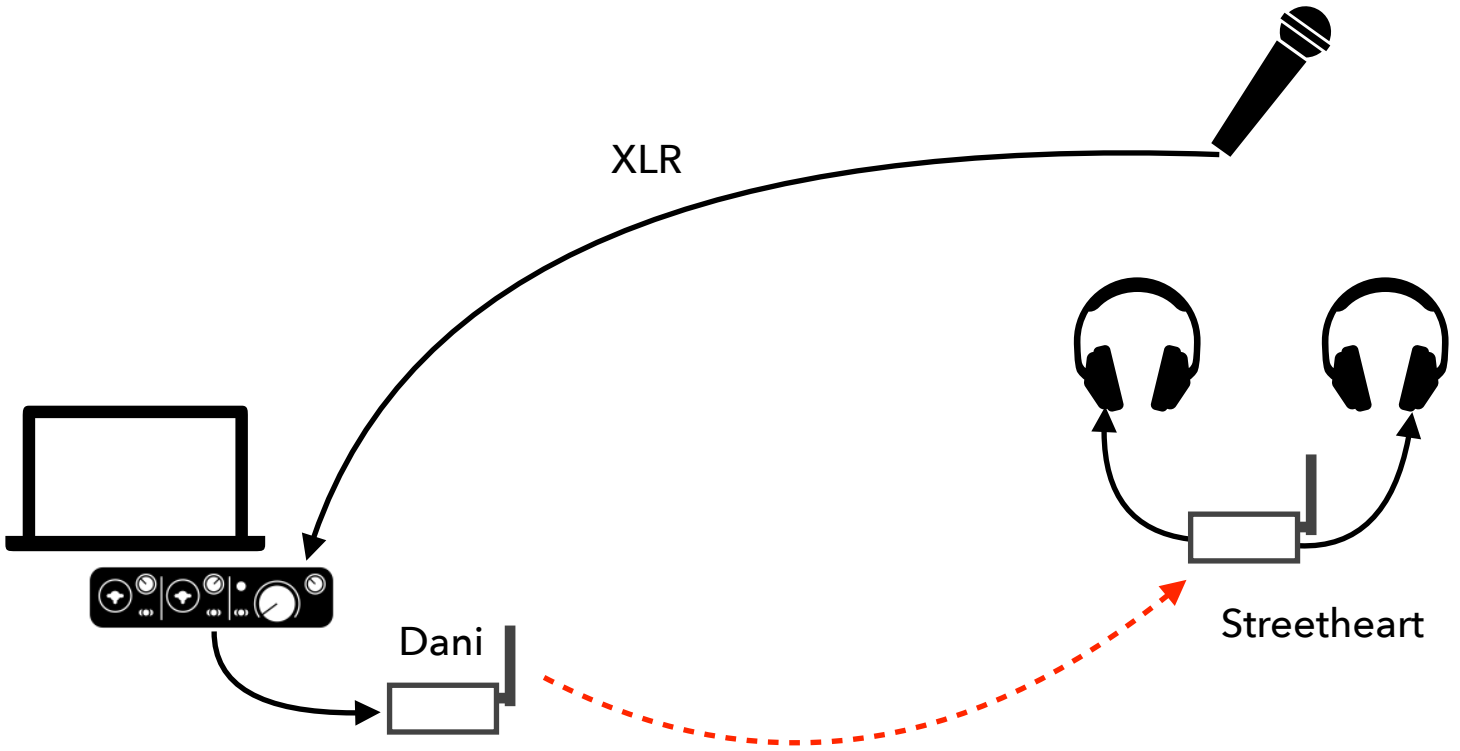
42   *gang vocals in a seedy alley*

Streetheart

Valerie Mk2

Dani

Streetheart

PRO DJ

DILLINGER LABS

pro wireless DJ setup

Streetheart

Helix

Cue

Dani x 2

Main

Death from Below

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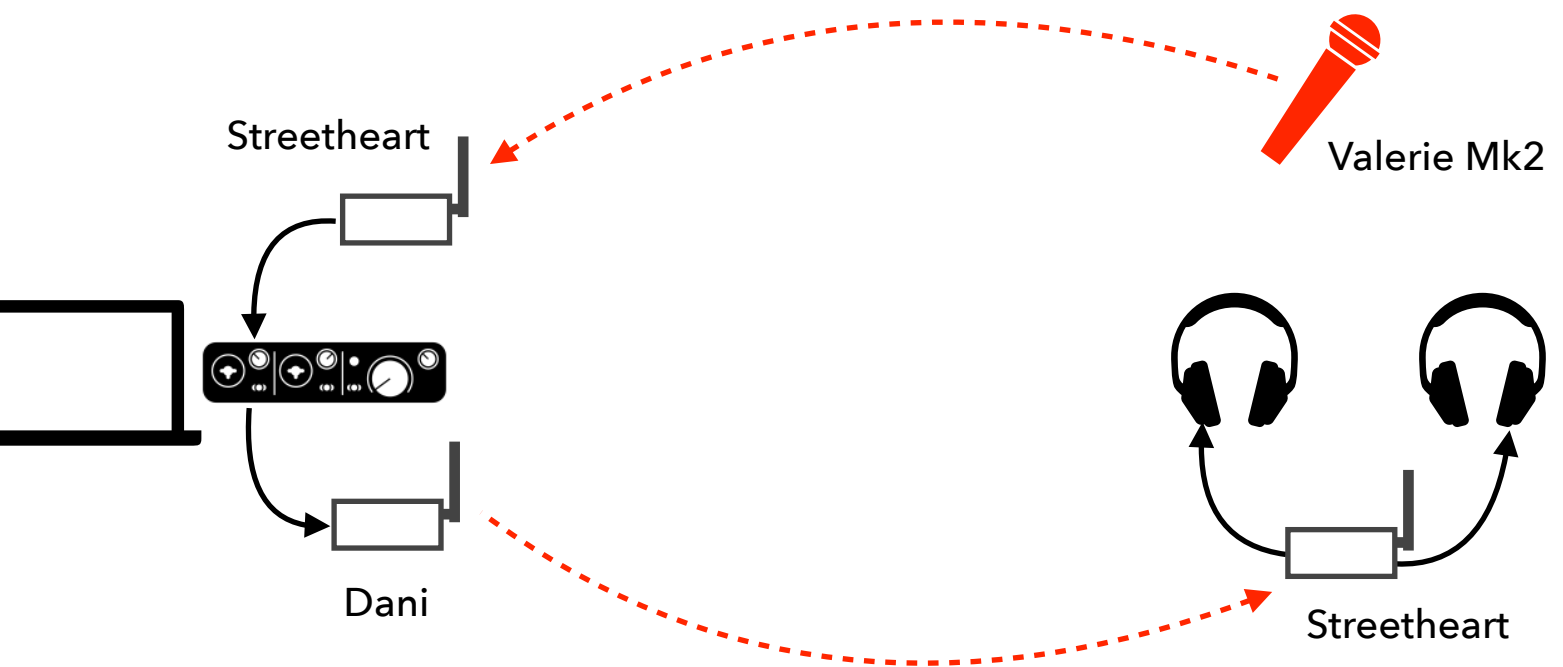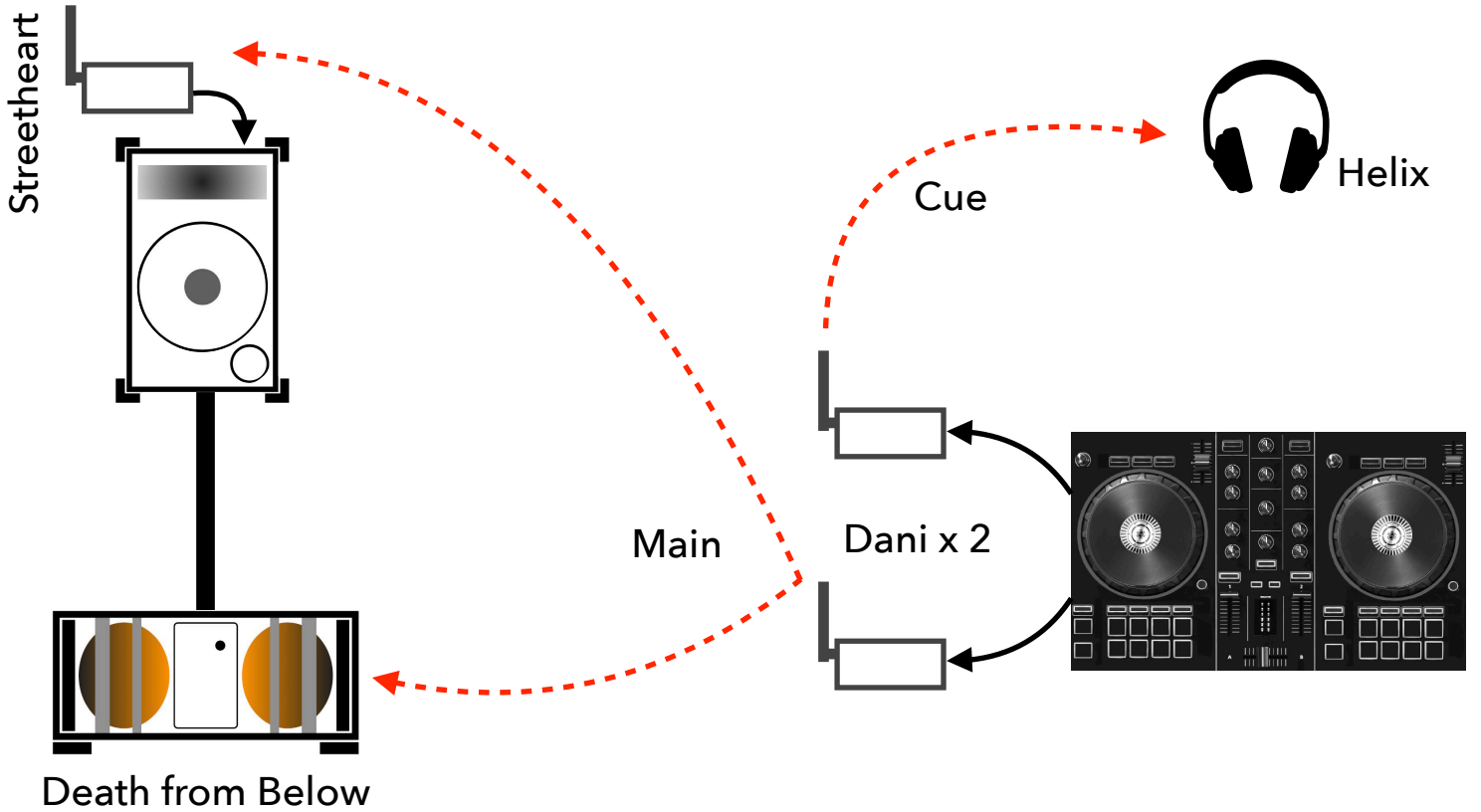
dude, I brought my flash drive

Streetheart

Helix

Helix

Cue

Main

Cue

Dani

Main

Death from Below

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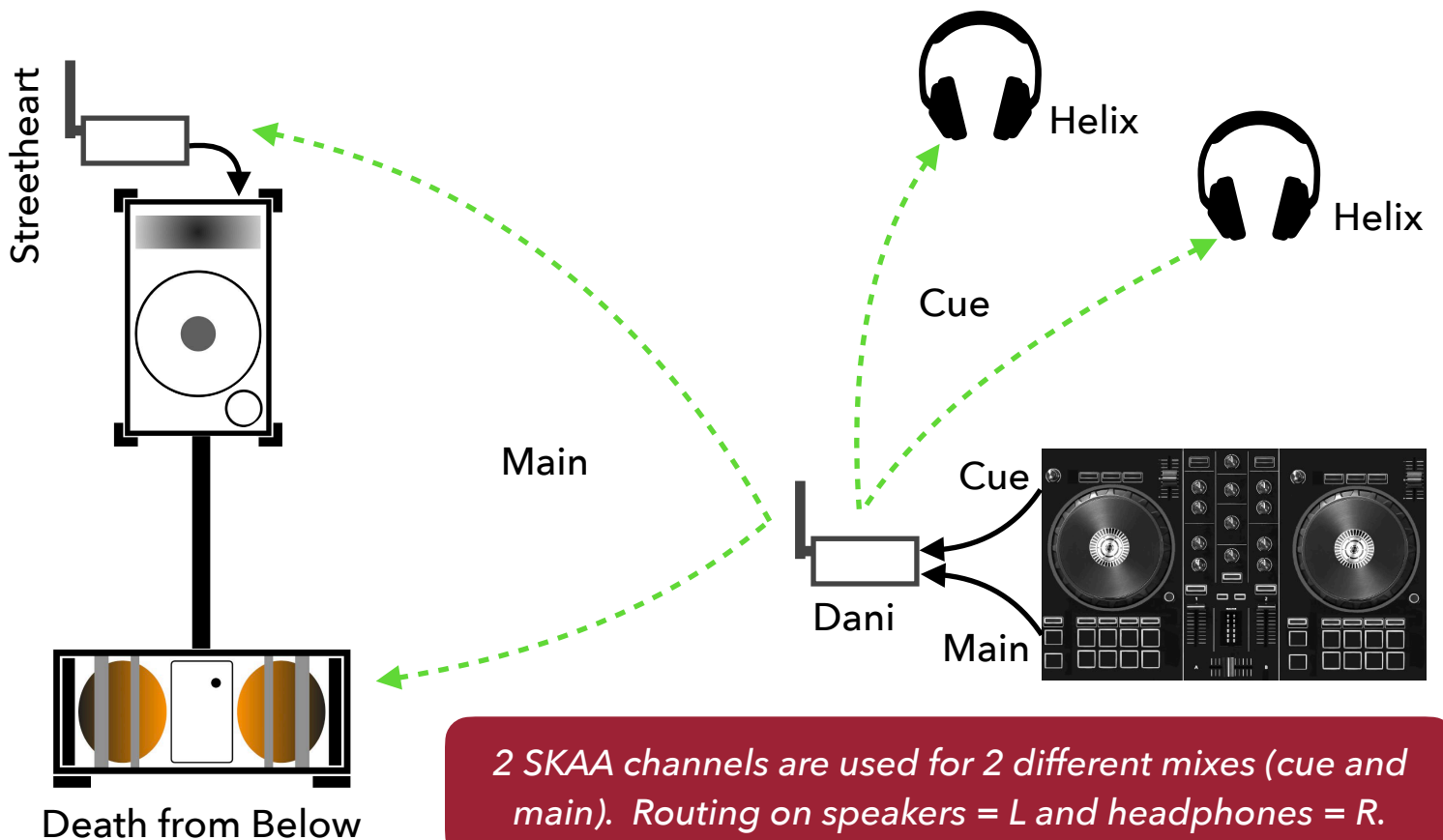
Shaking the dance floor

Streetheart
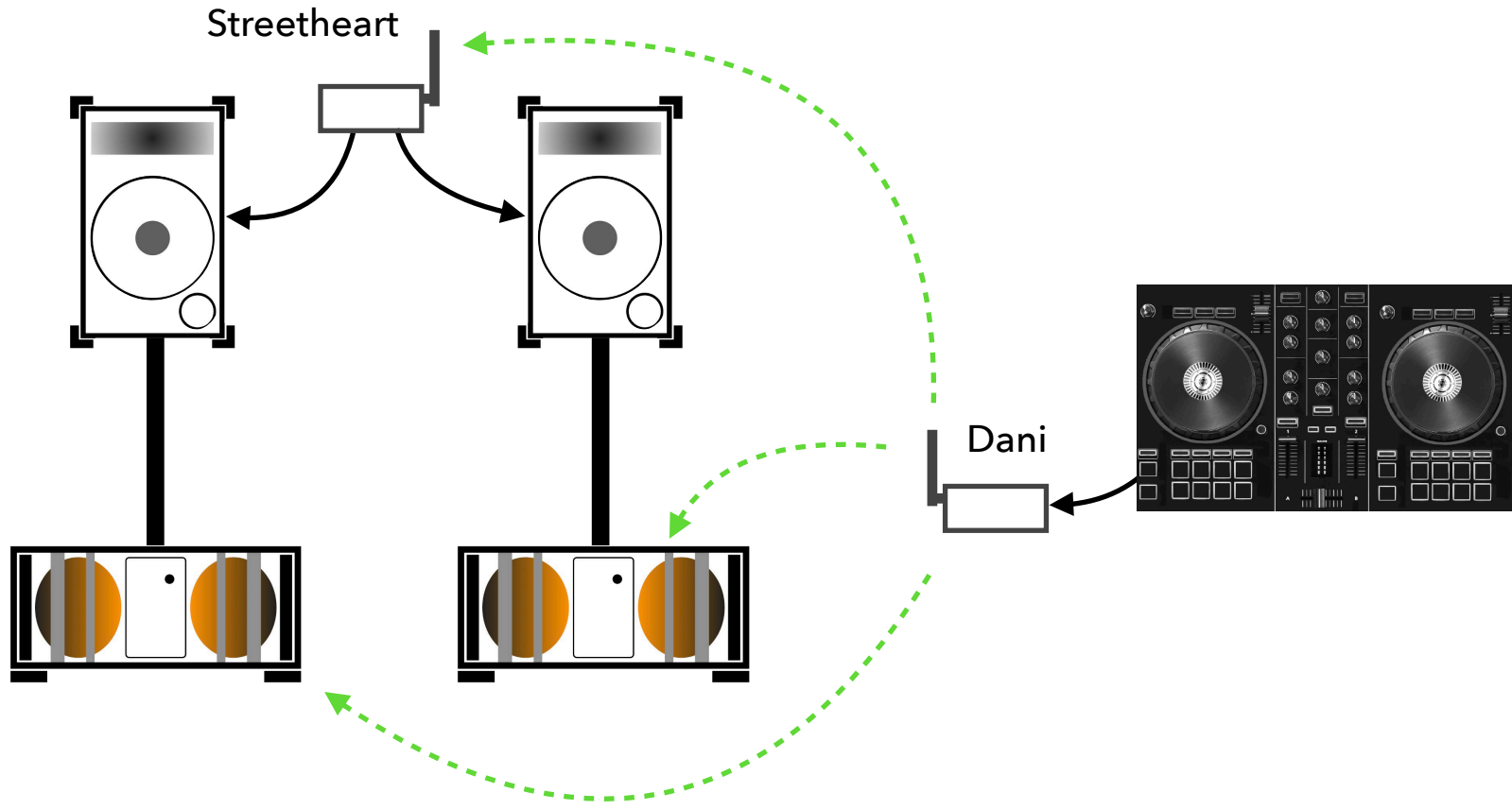
Dani

Add a booth monitor!

Streetheart
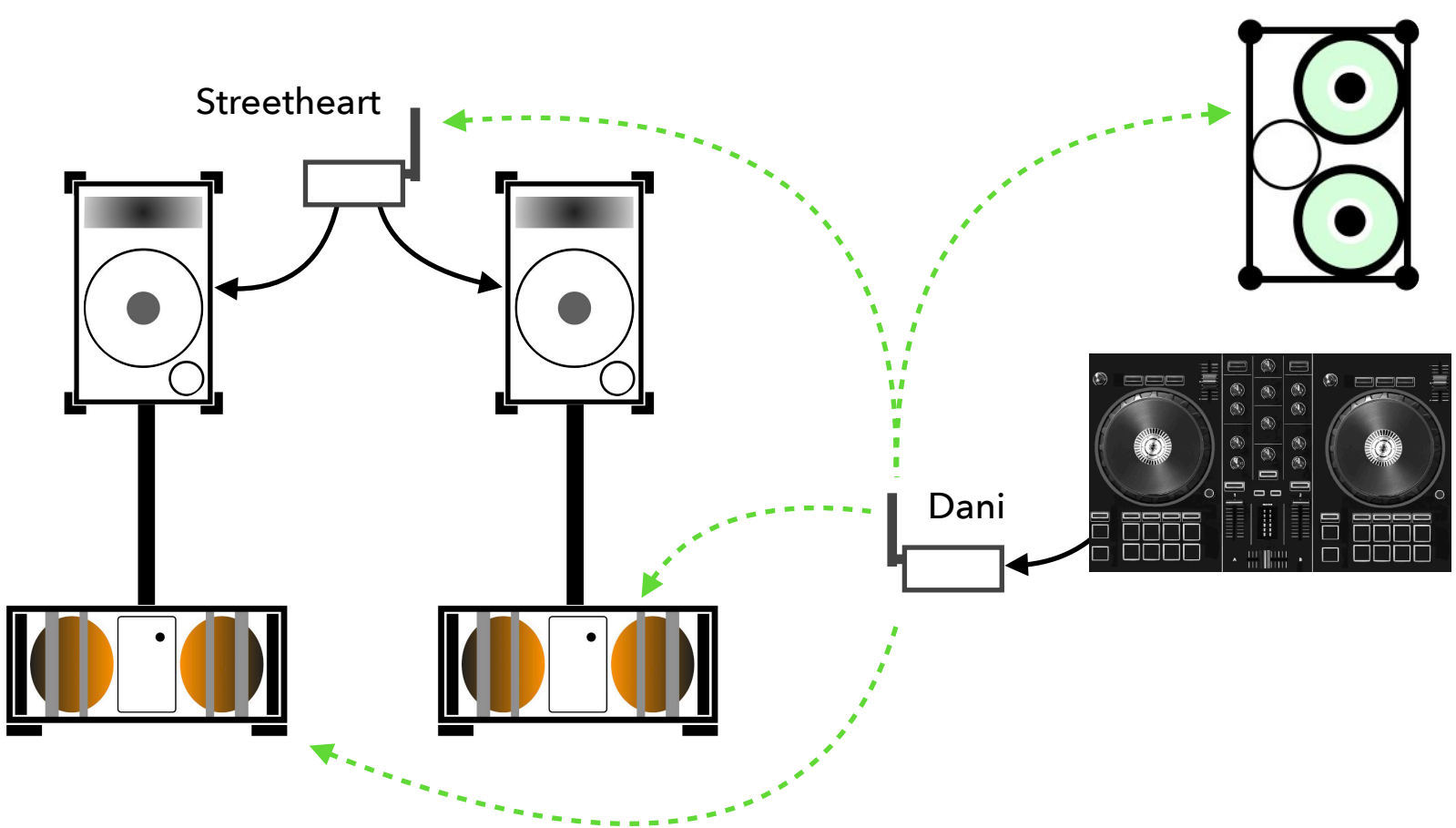
Dani

running ceremony music…

Streetheart
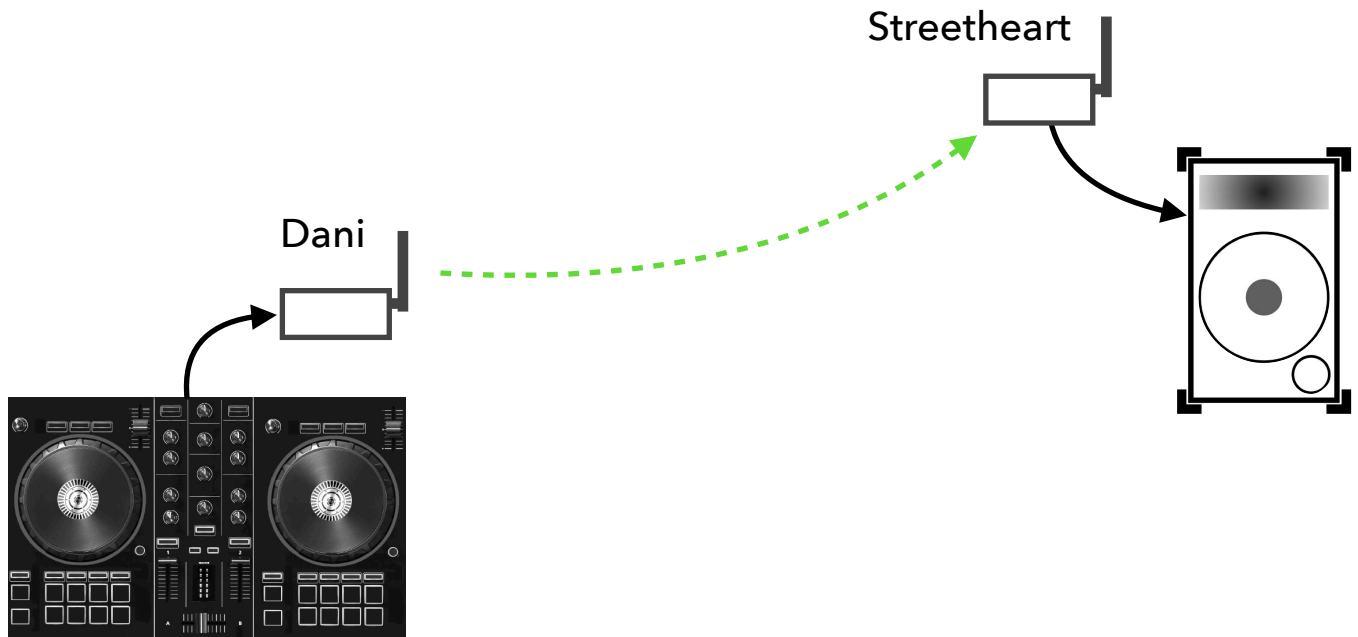
Dani

… and if that walkway is REALLY long

Streetheart

Dani

Streetheart   Streetheart

Dani

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

Dani

let's use all 4 of Streetheart's outputs — oh and don't forget to gaff down those Streethearts or they'll vibrate off
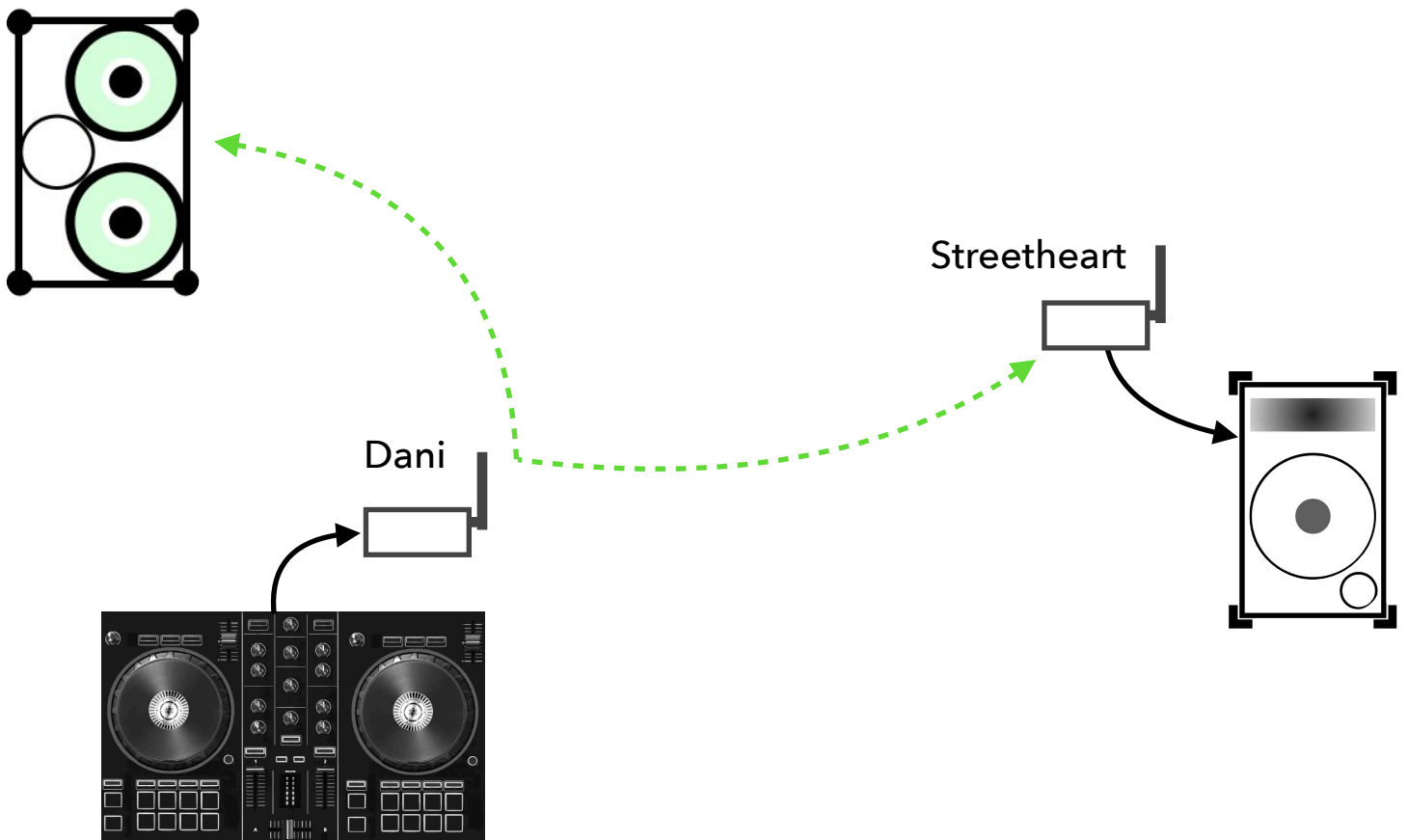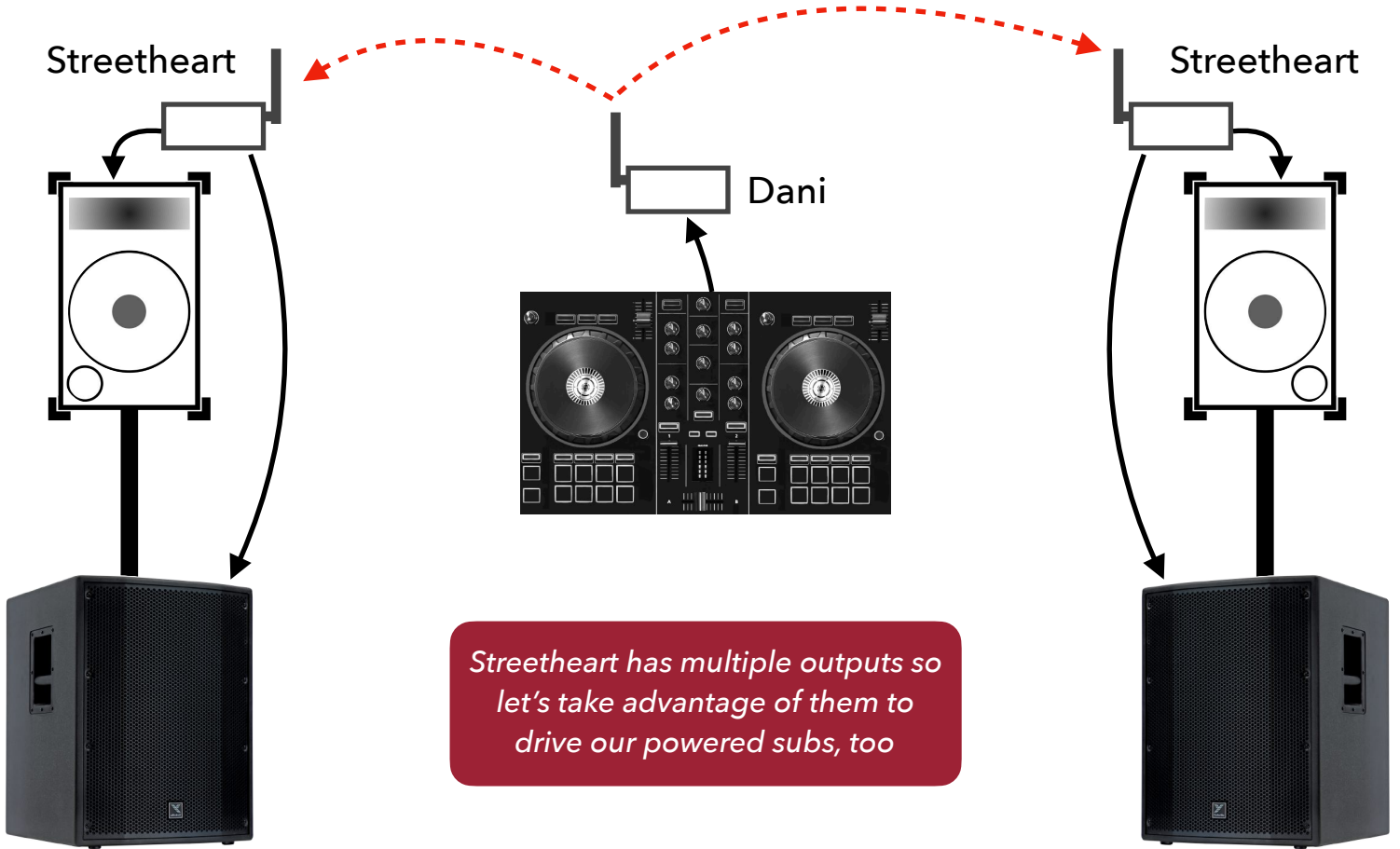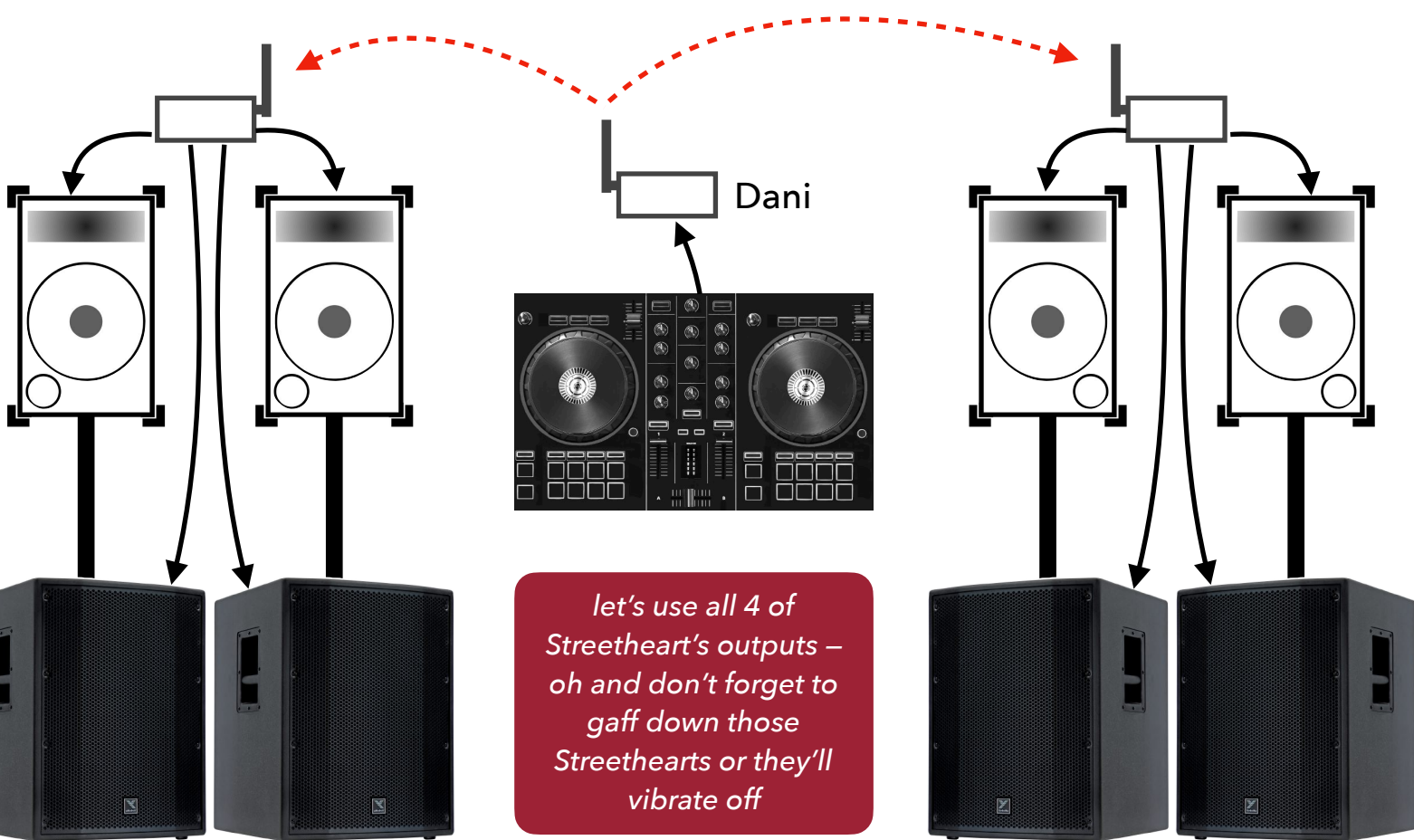
51
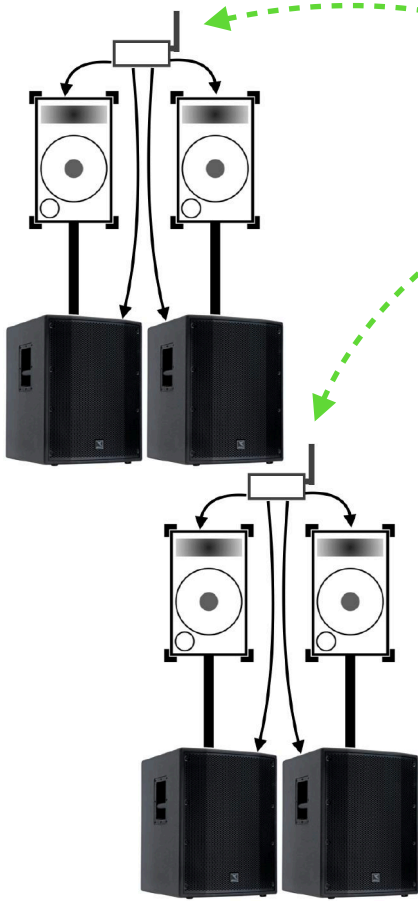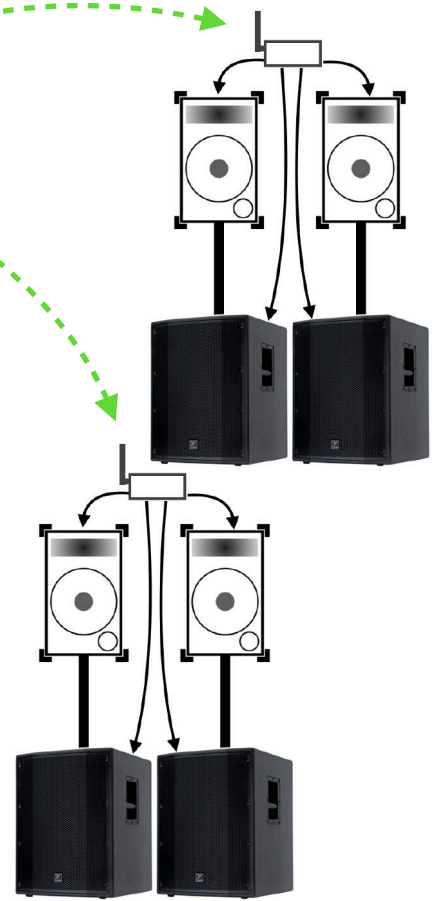
stacks III

Dani

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
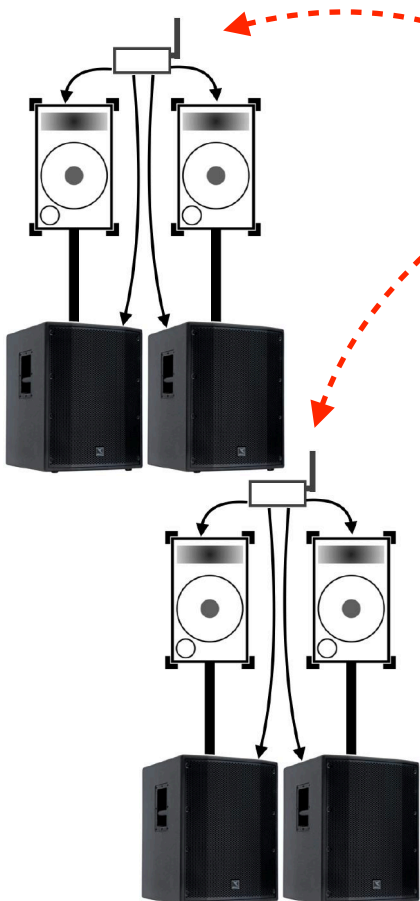
stacks IV
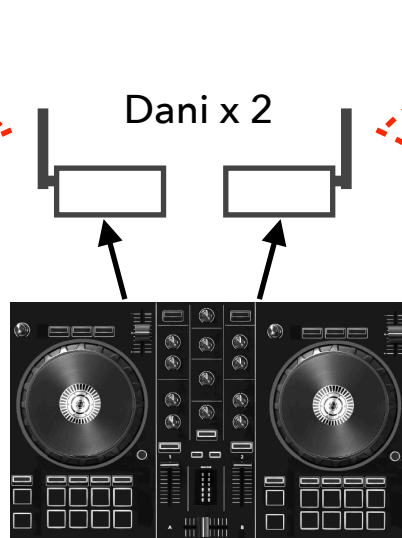
Dani x 2

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

HOME

Phone +
Cassandra

Streetheart

Phone +
Cassandra

Streetheart

mo bass goo

Phone +
Cassandra

Streetheart

Death From Below

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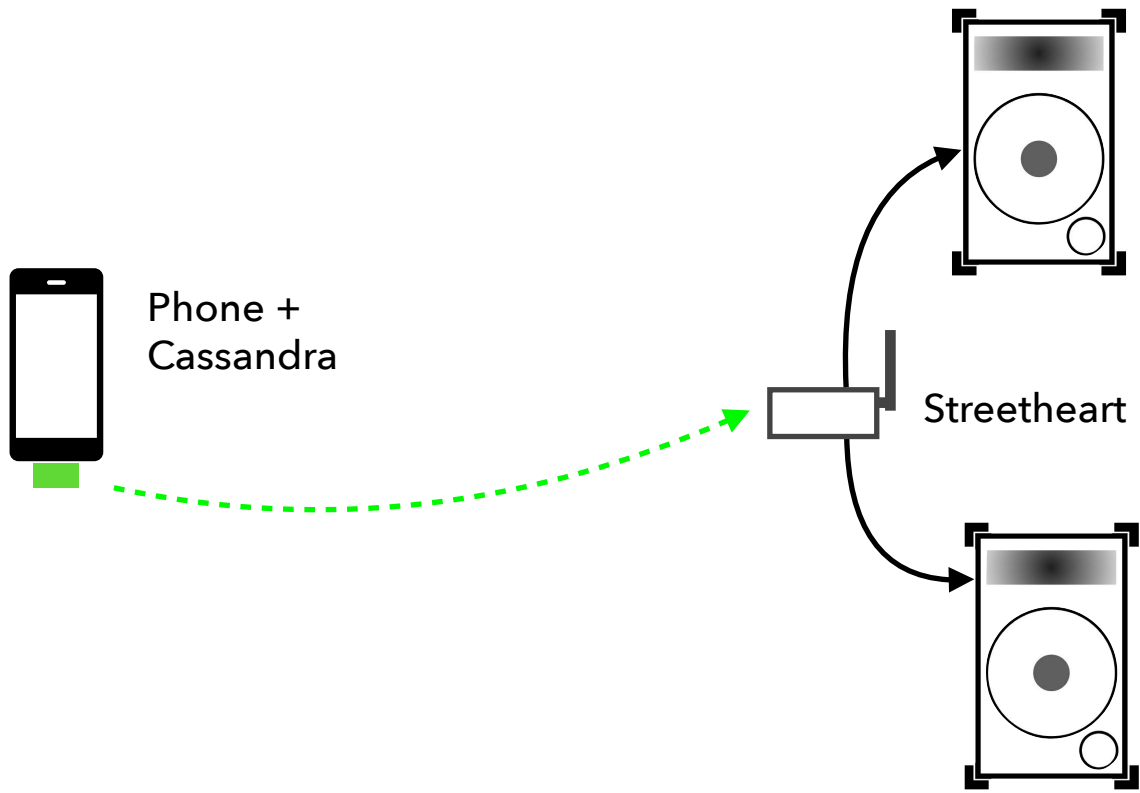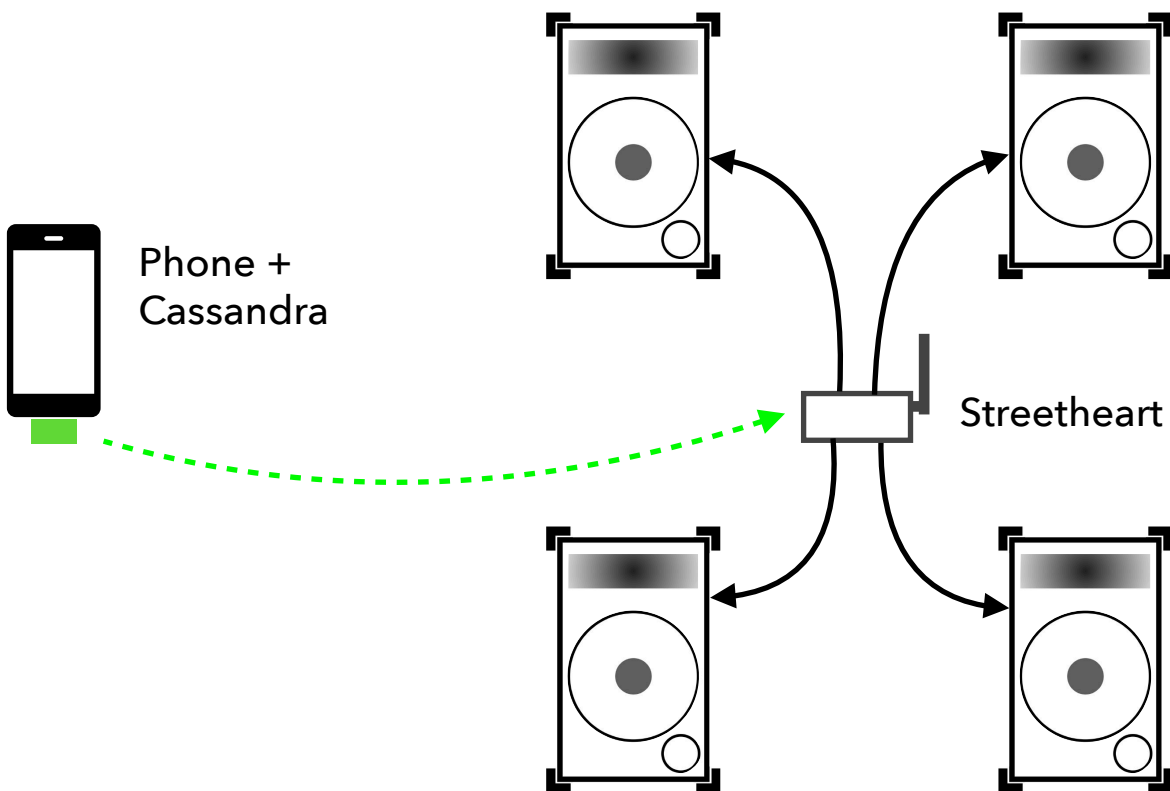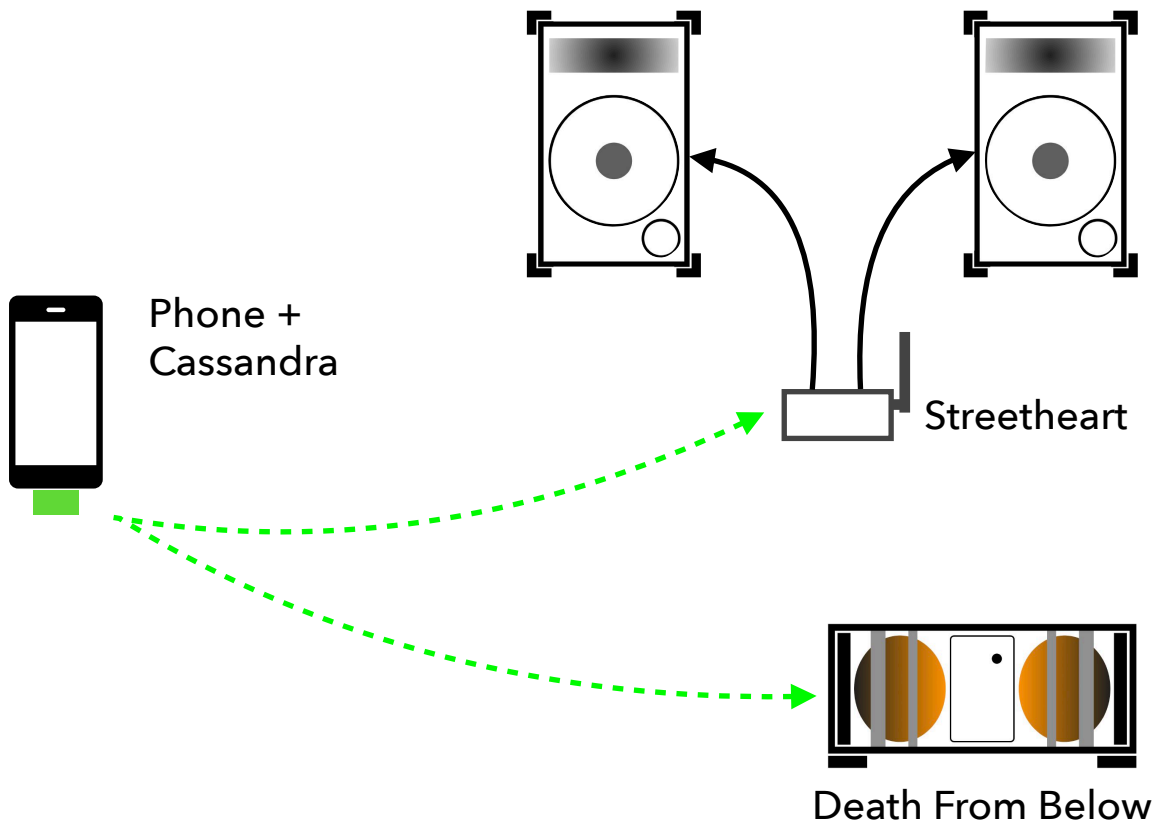
stereo subs because we can

Phone +
Cassandra

Streetheart
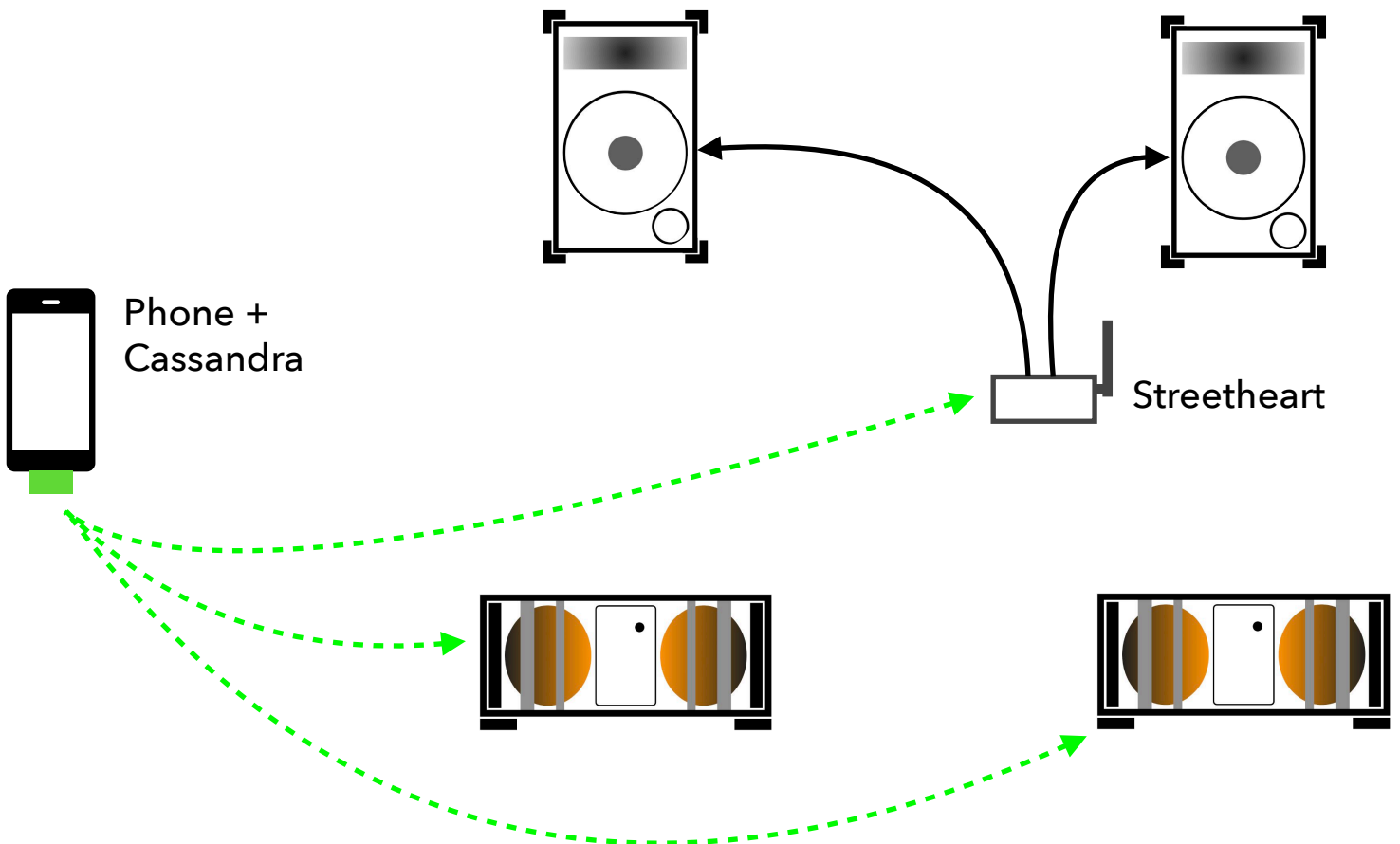
Combine old and new with a Hub Speaker

Phone

Hub

Streetheart

Satellite

- -
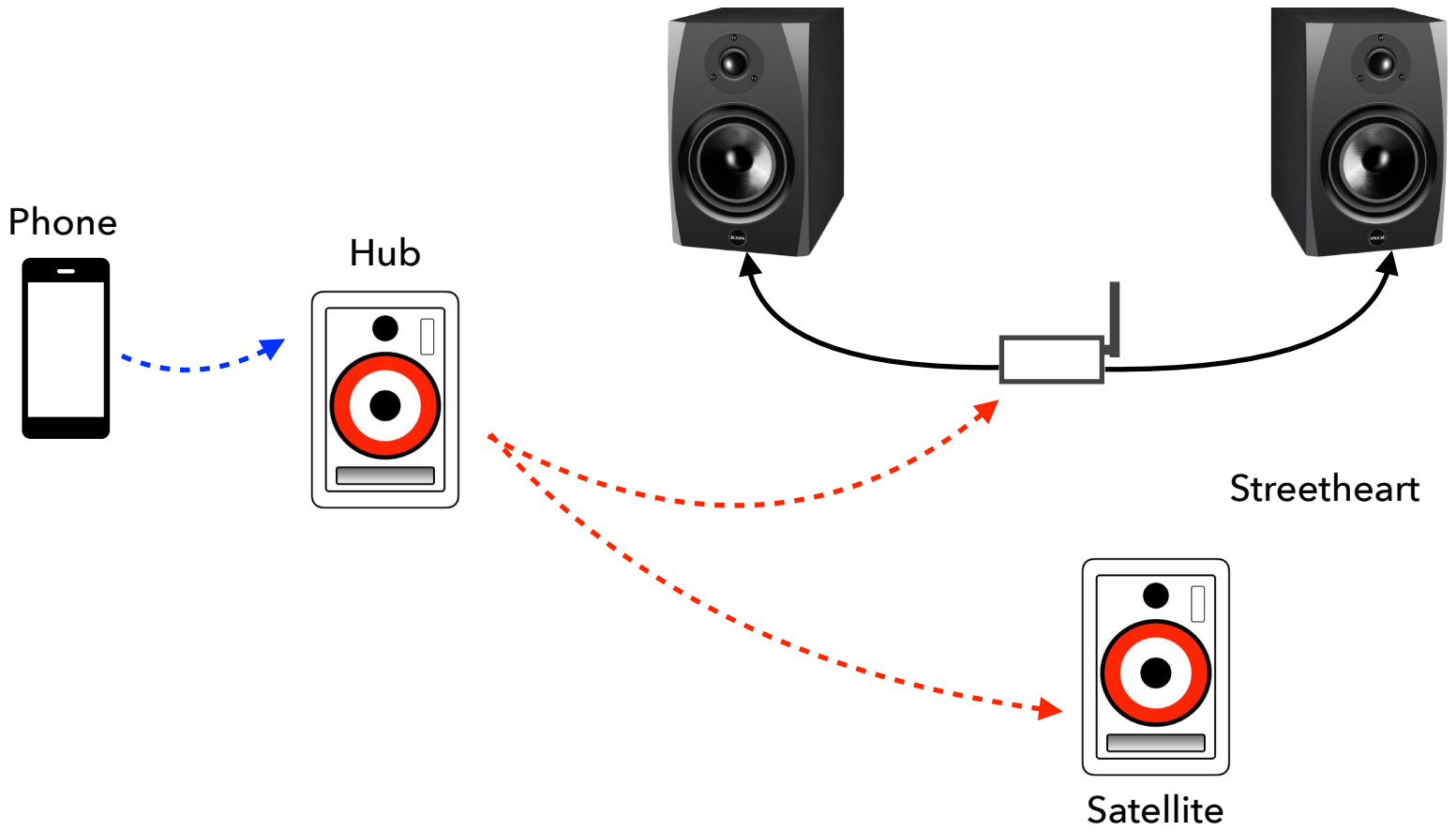
run speakers and headphones

Phone + Cassandra

Helix

Streetheart
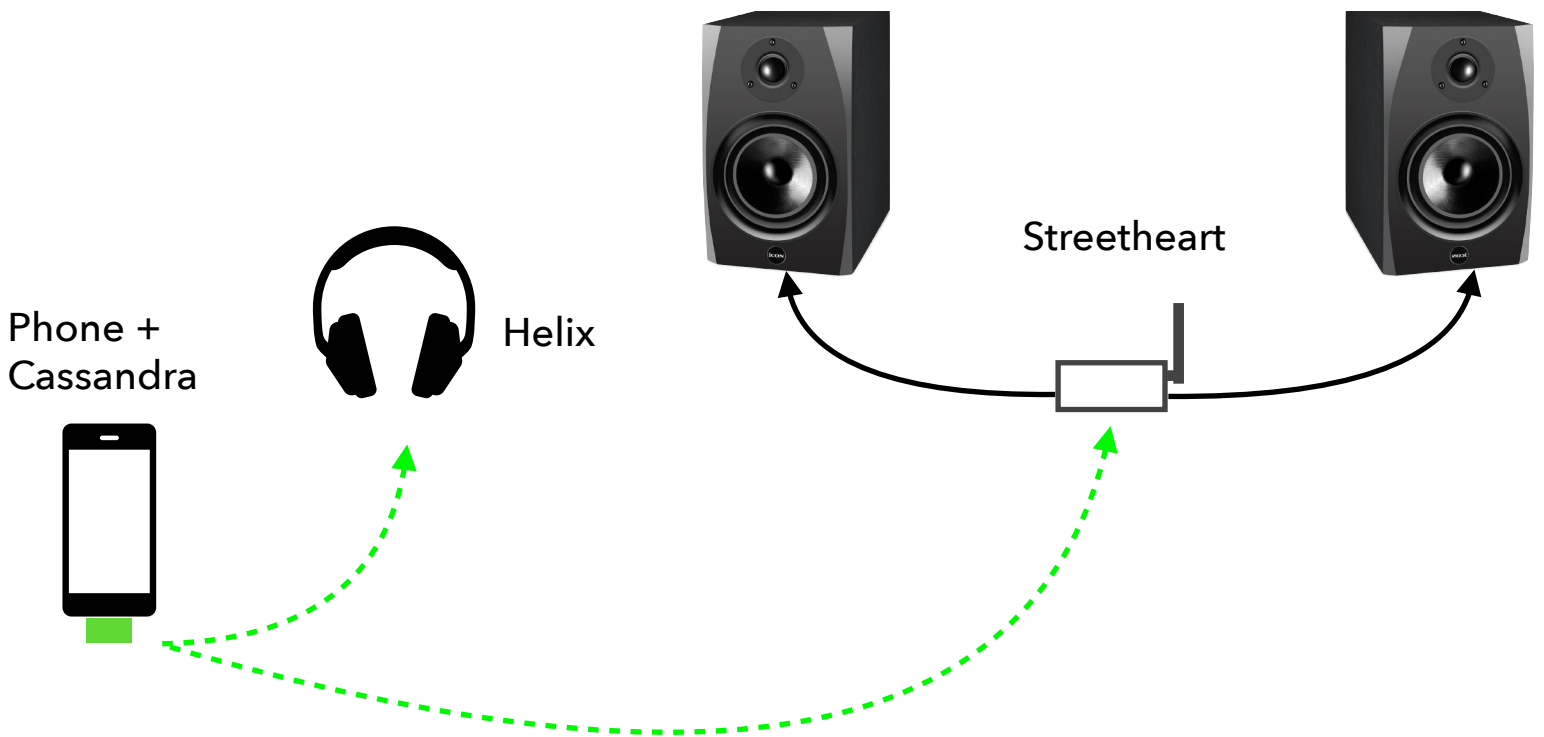
rock 4 different rooms at a party...

Cassandra
or Diz
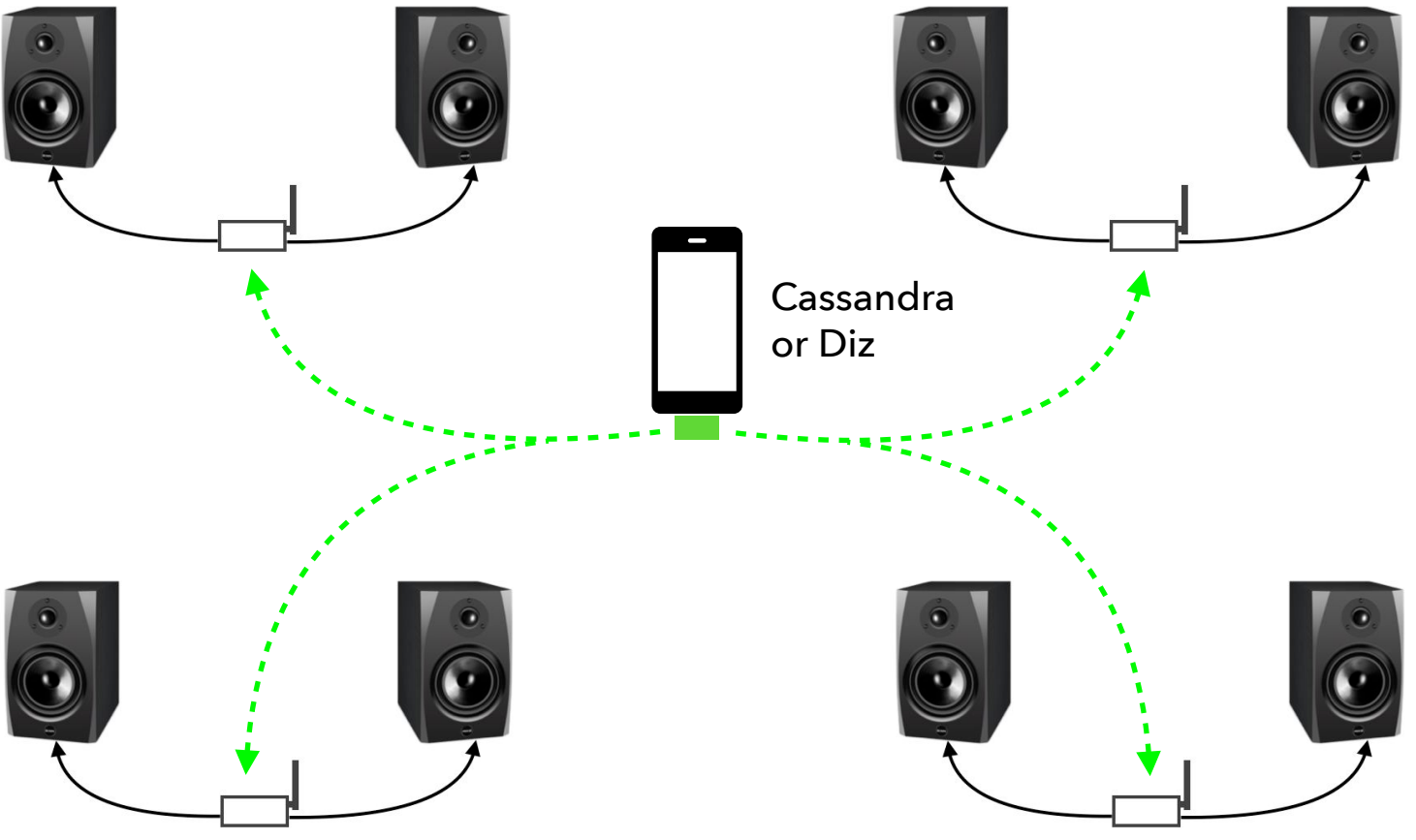
60

add subs for the harder-partying rooms

Cassandra
or Diz

DECKLESS DJ RIGS

DILLINGER LABS

Streetheart

Death from Below

Notebook running
Serato or similar

Ursula or Cassandra
Transmitter

Streetheart

Death from Below

Ursula or Cassandra
Transmitter

Satellite in
2nd room
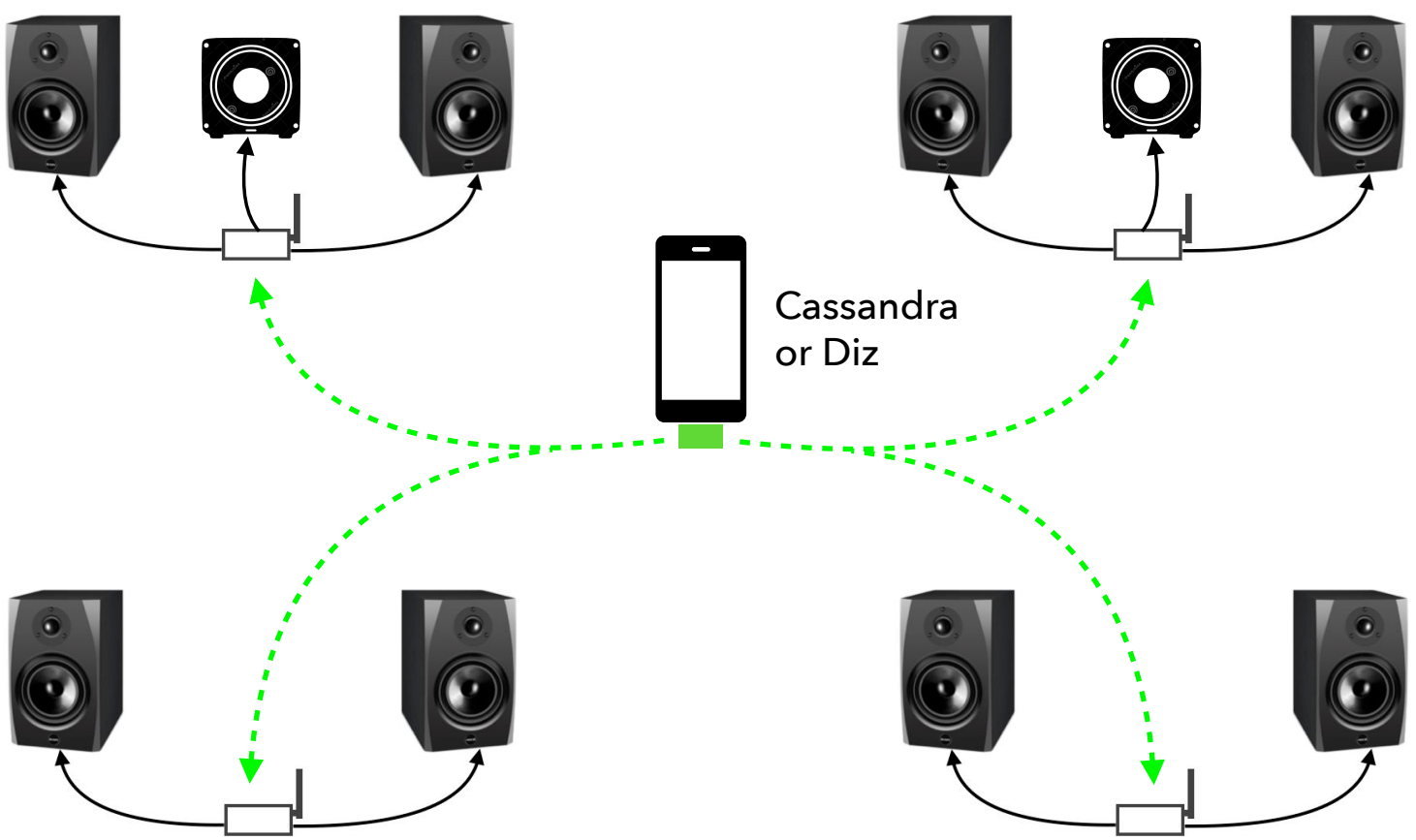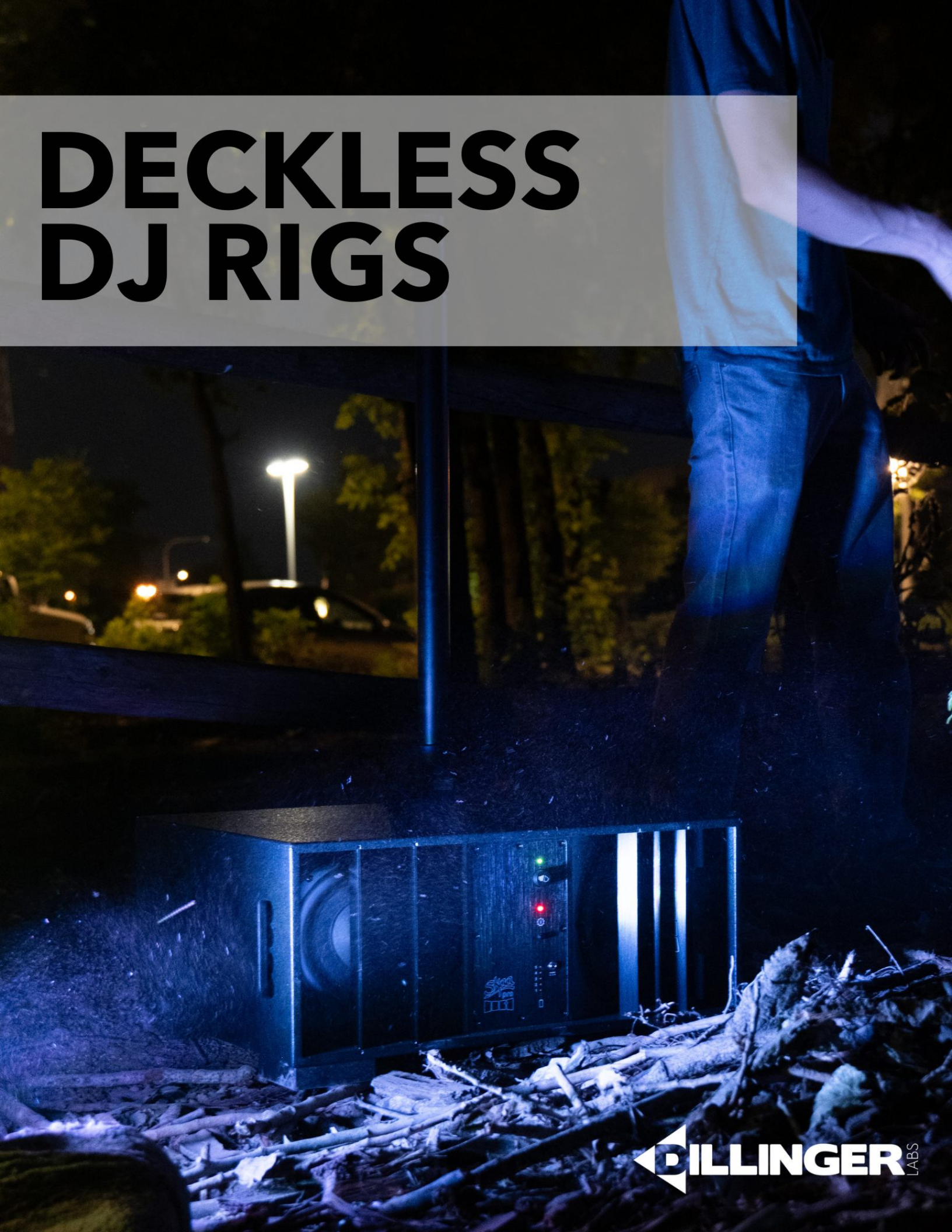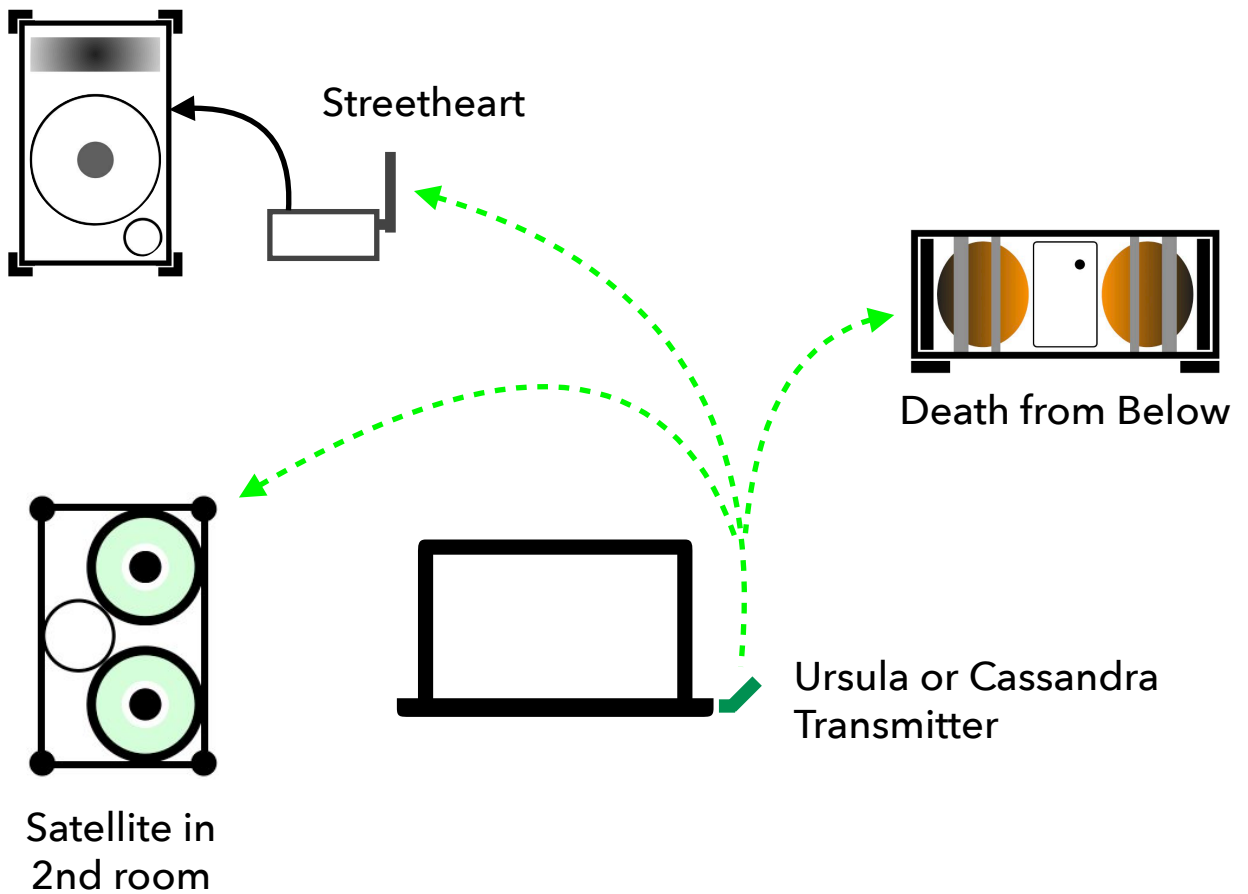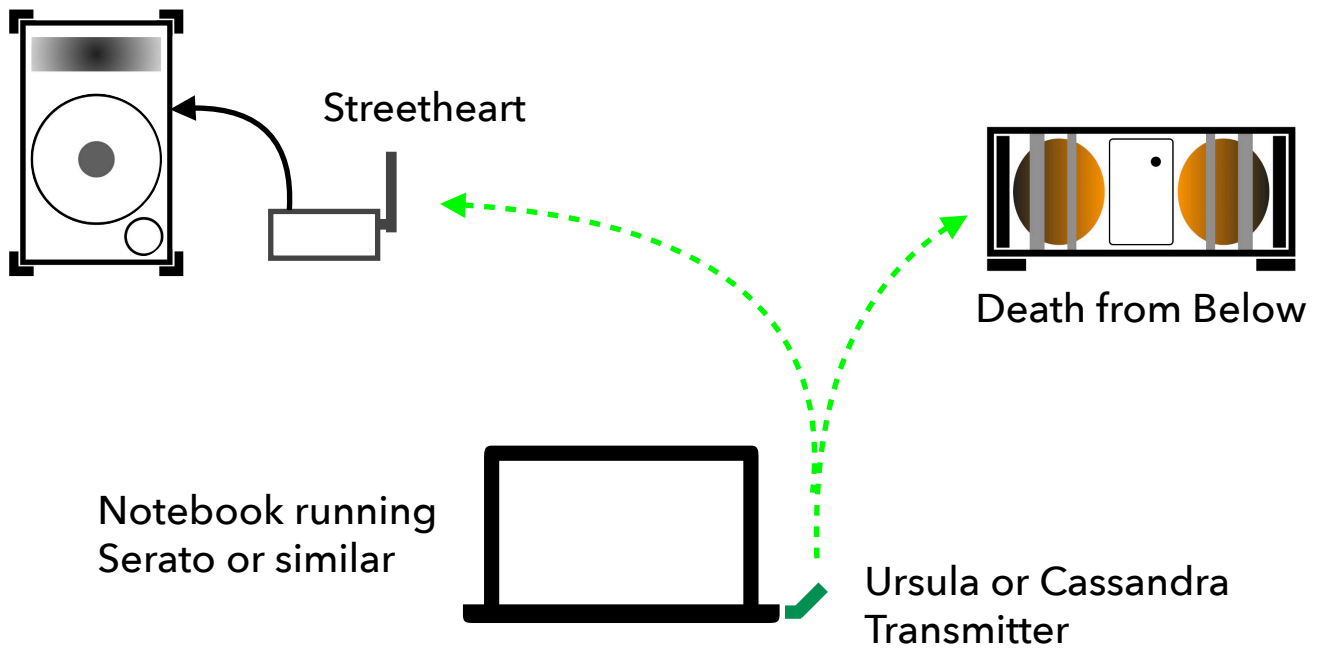
fill a wedding venue without running cables…

Streetheart x 3

Ursula or Cassandra
Transmitter

Death from Below
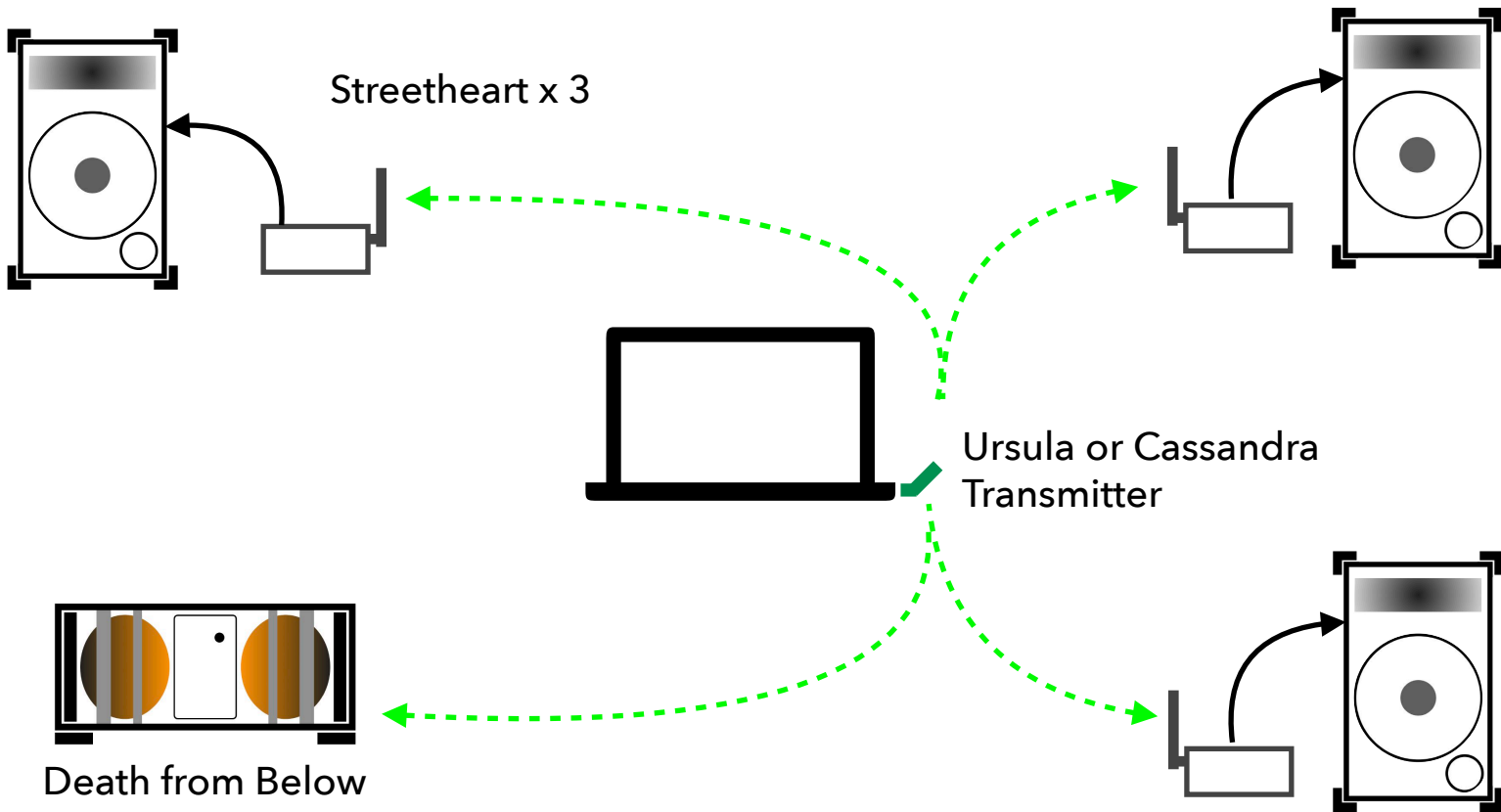
…or add a Soundboks to fill the extra room

Streetheart

Death From Below

Ursula or Cassandra
Transmitter

stereo tops and bottoms

Ursula or Cassandra
Transmitter

Streetheart

Death from Below

Death from Below

- -
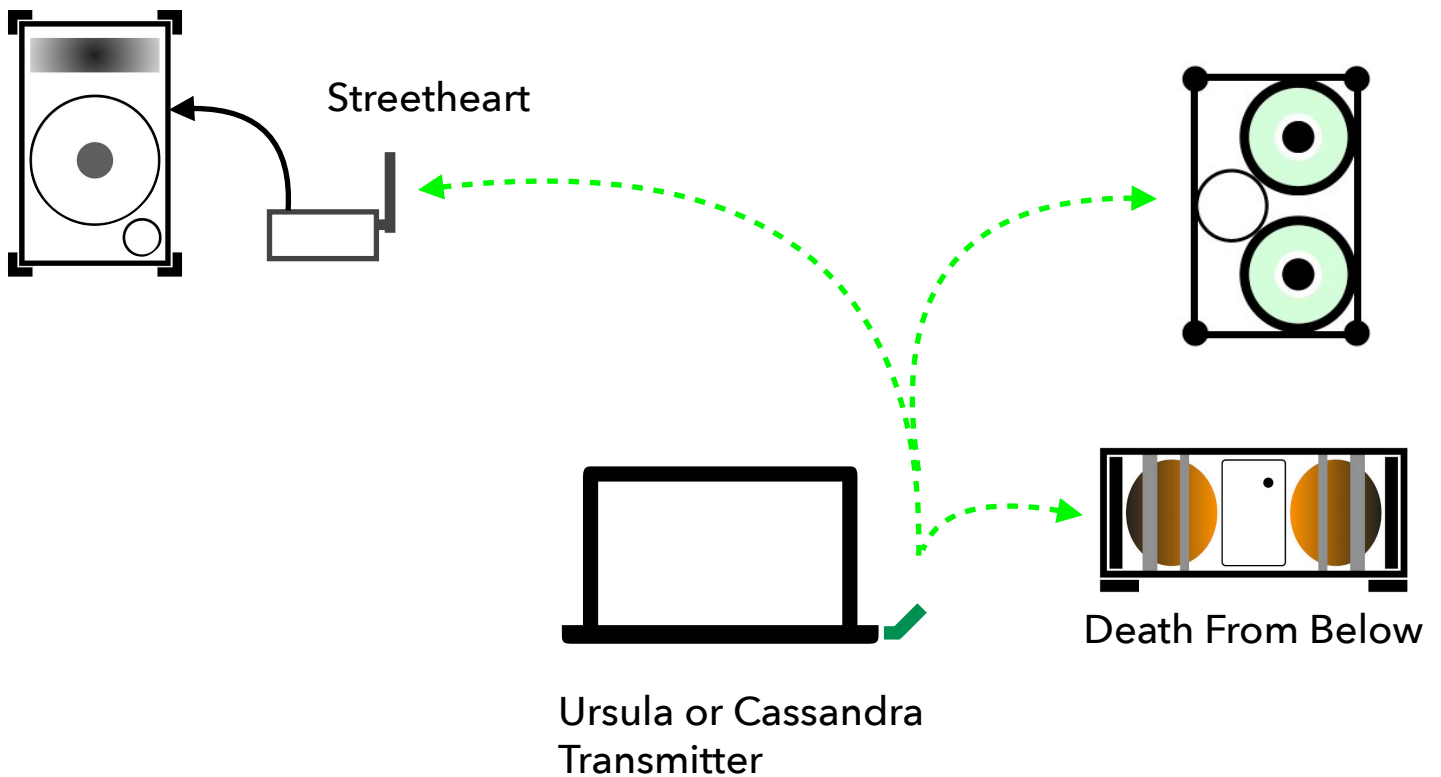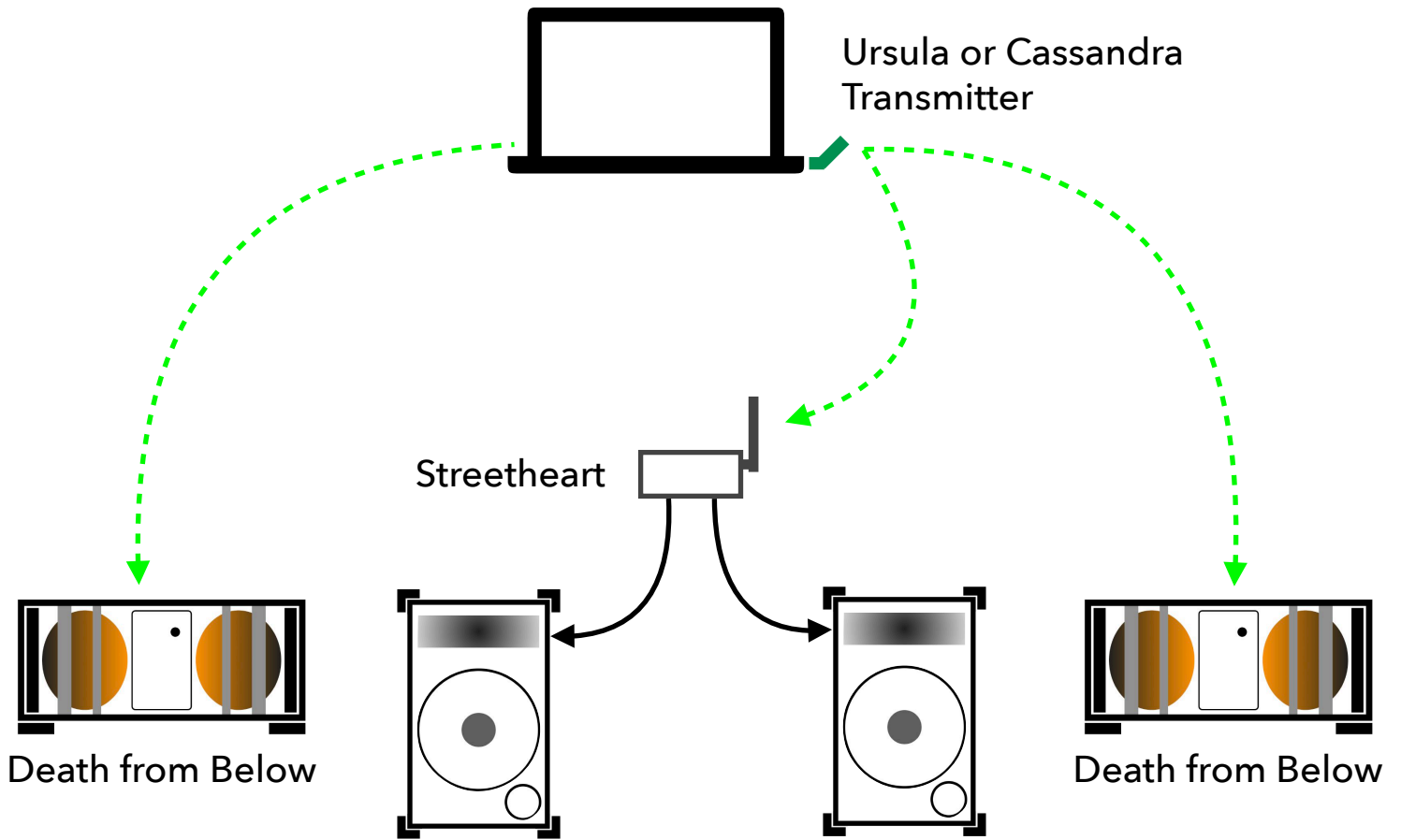
66 *send audio to your wedding videographer*

Ursula or Cassandra
Transmitter

Streetheart
in camera
man's
backpack

Streetheart

Death from Below

Death from Below
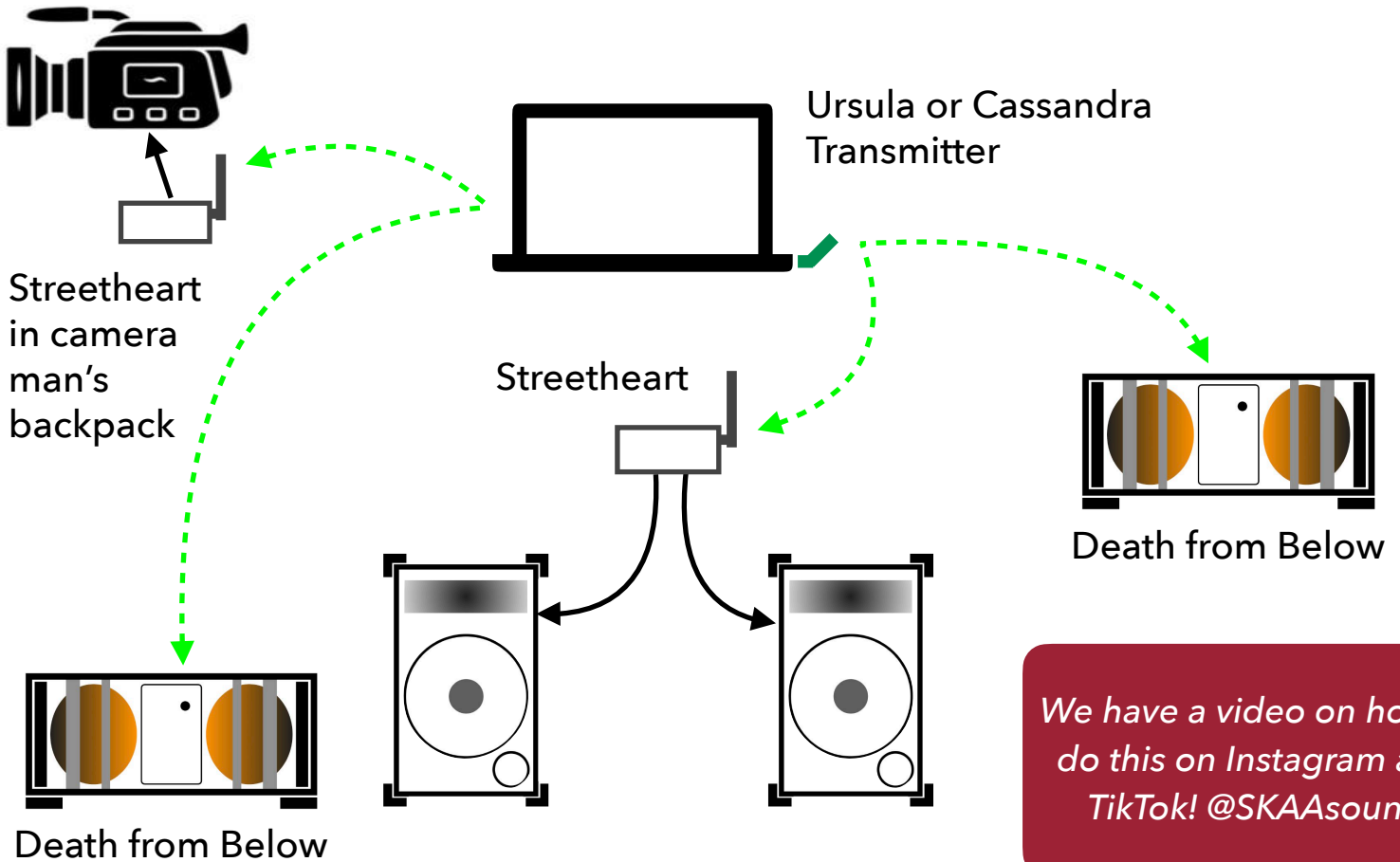
We have a video on how to do this on Instagram and TikTok! @SKAAsound

GAMING
& TV

DILLINGER LABS

Powered
bookshelf
speakers or
studio
monitors

tablet

Diz or
Cassandra
Transmitter

tablet

Diz or
Cassandra
Transmitter

Toslink Pro transmitter

Toslink Pro transmitter
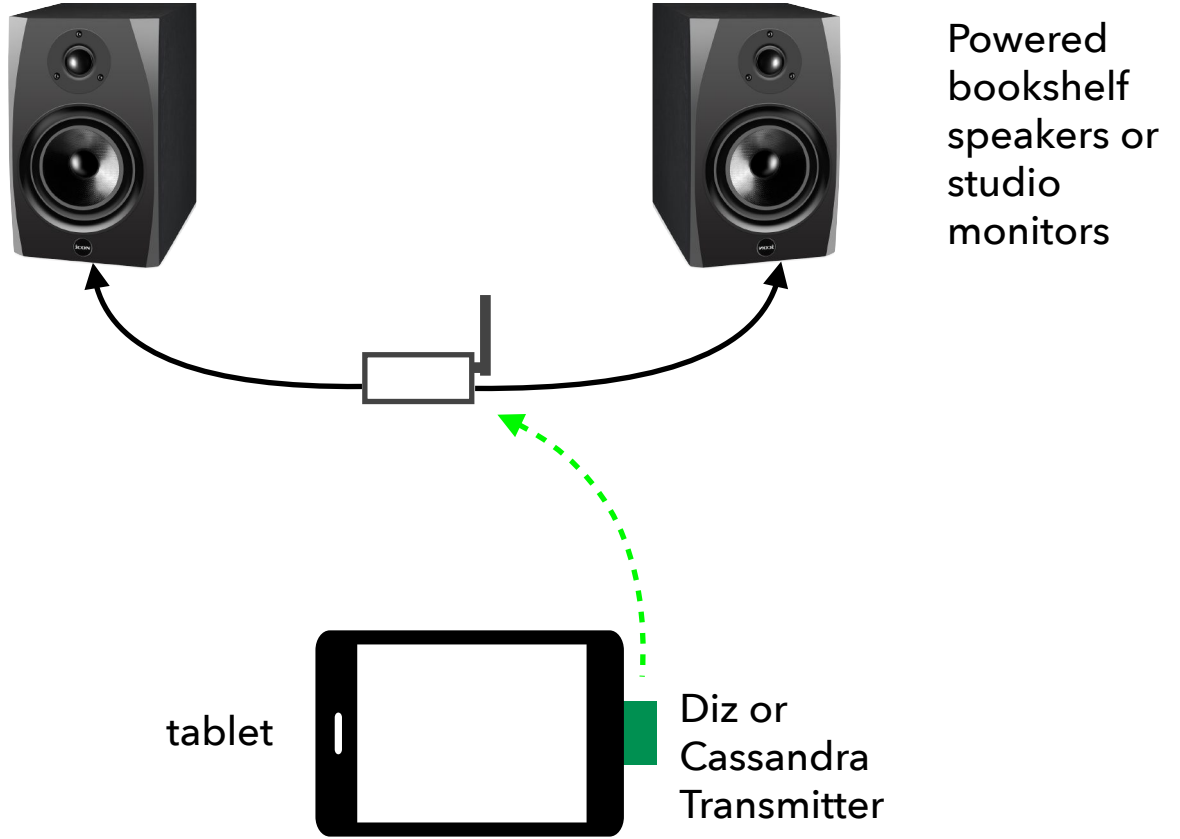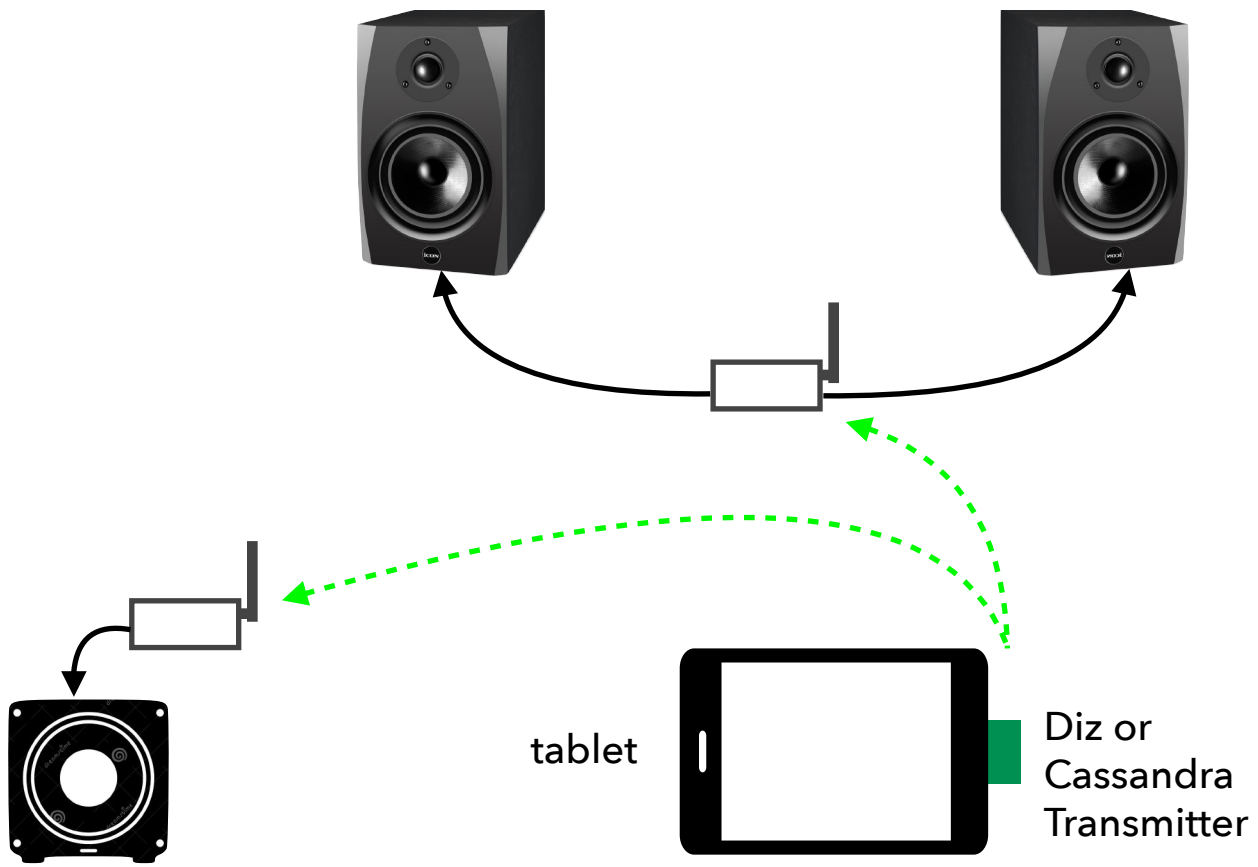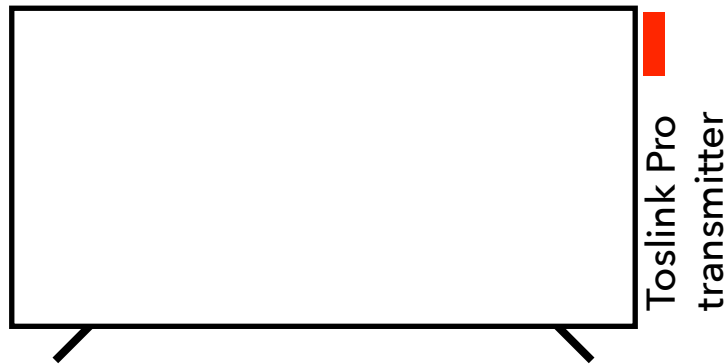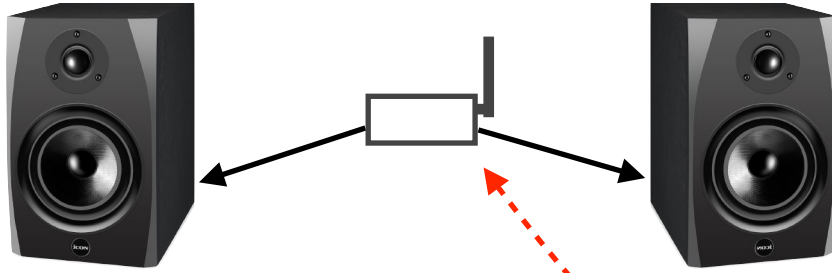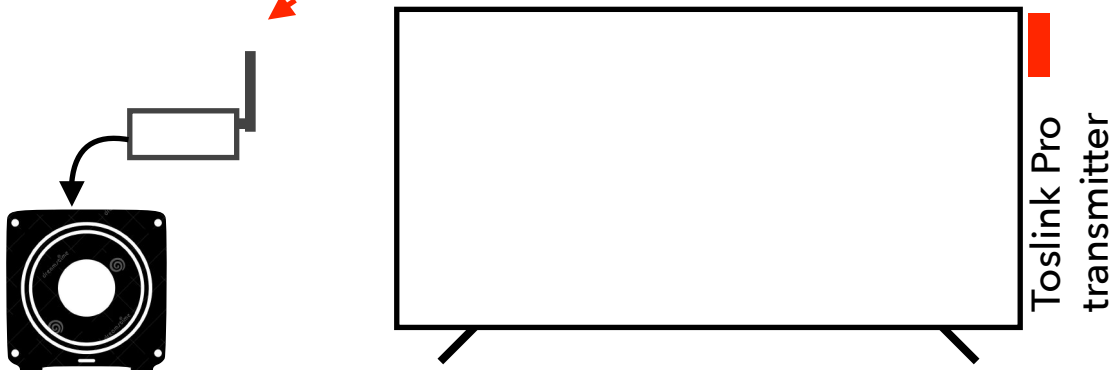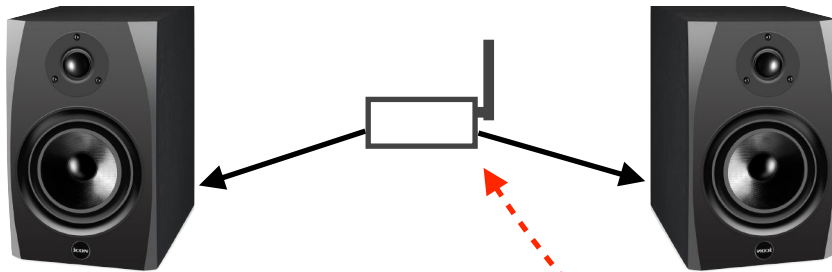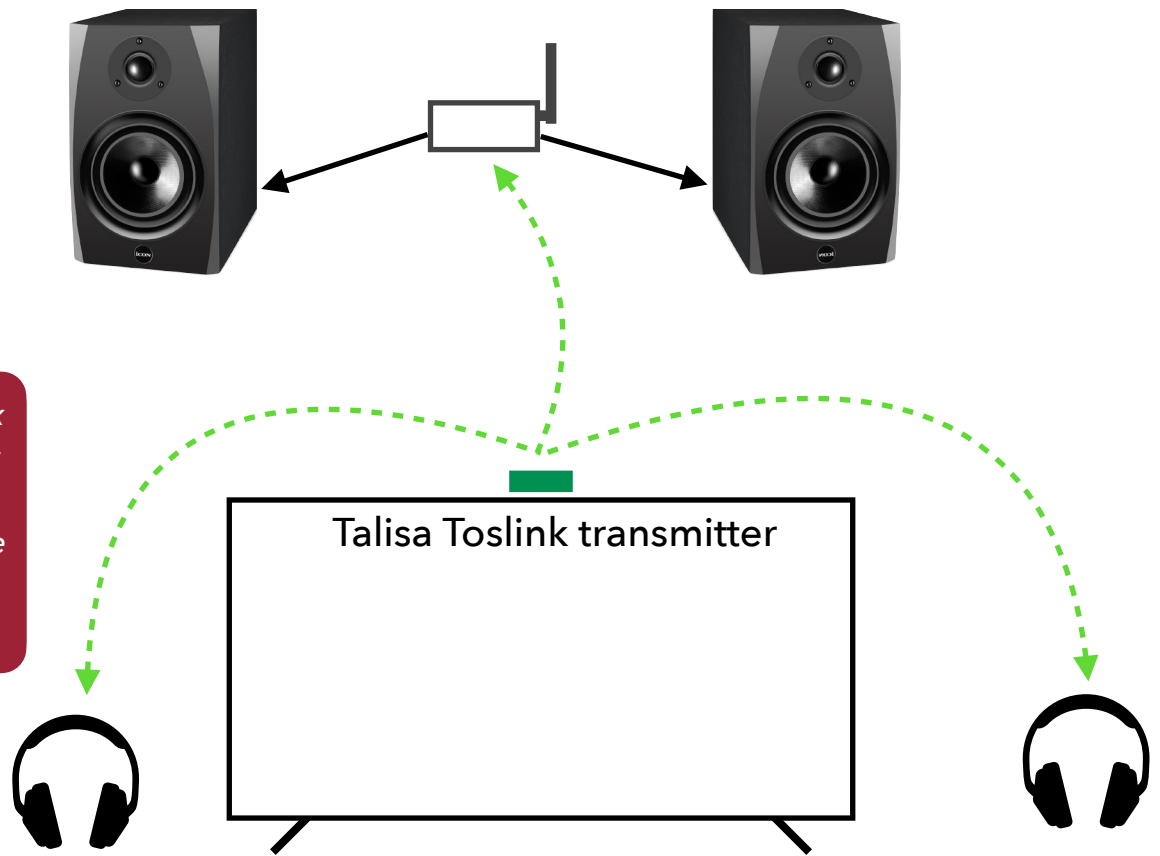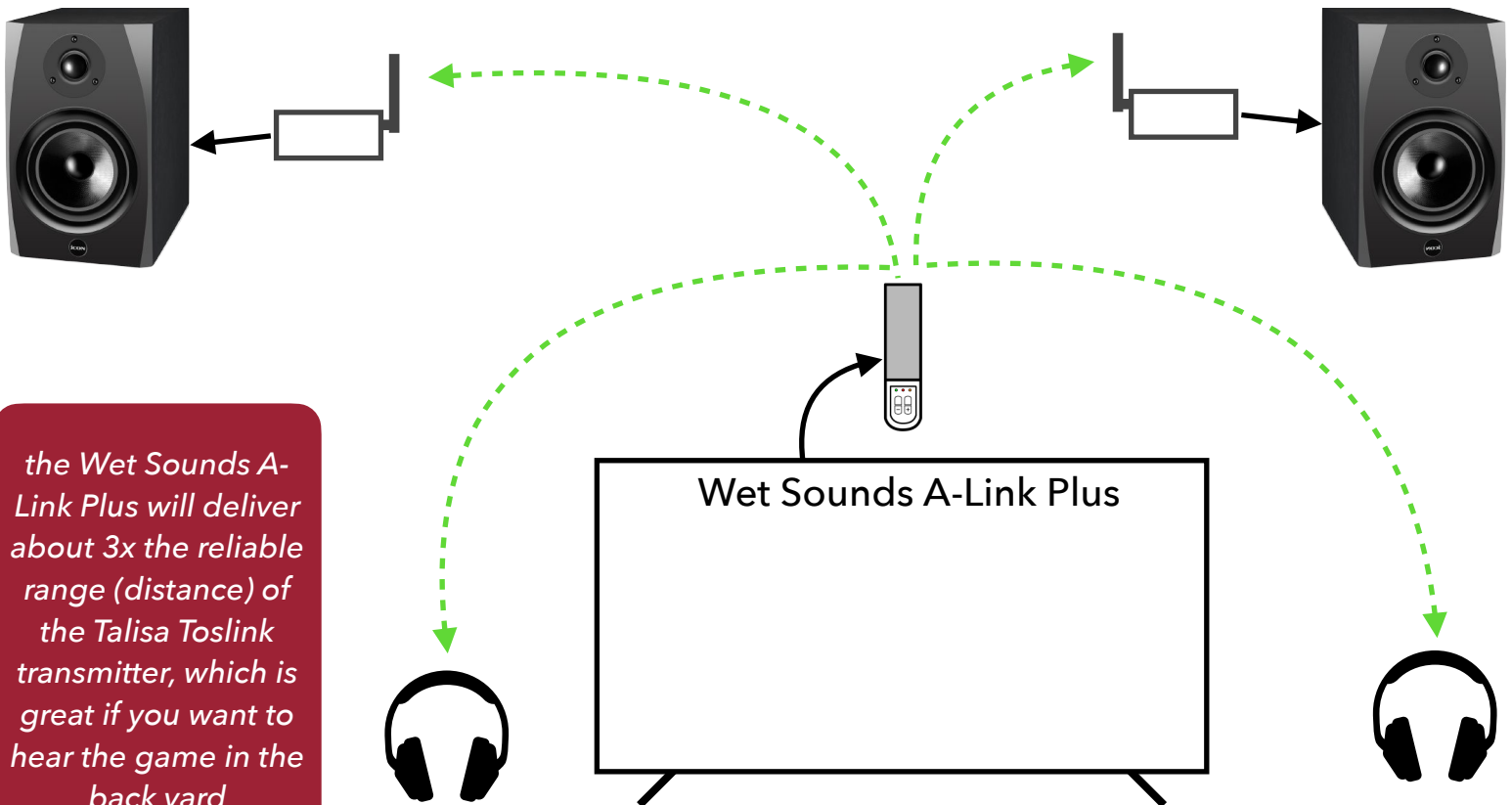
Game On 1

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
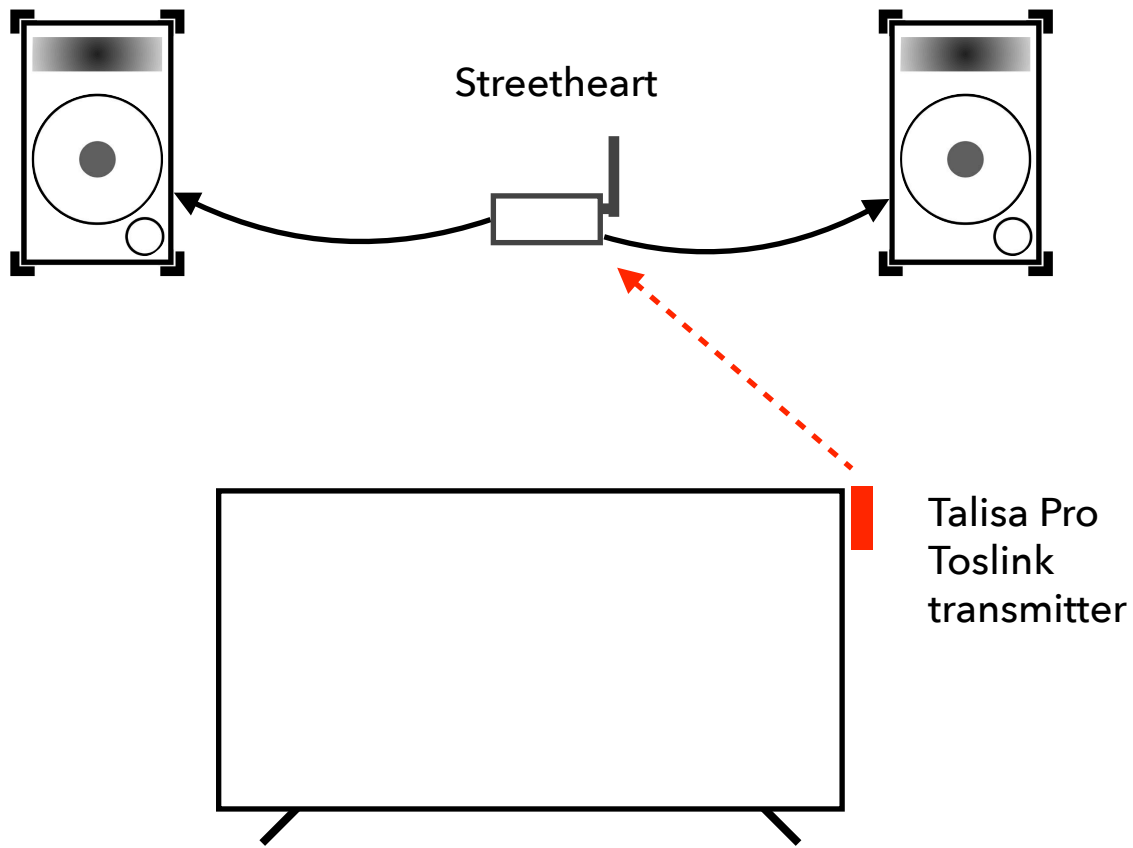
Talisa Toslink transmitter

Game On 2

the Wet Sounds A-Link Plus will deliver about 3x the reliable range (distance) of the Talisa Toslink transmitter, which is great if you want to hear the game in the back yard
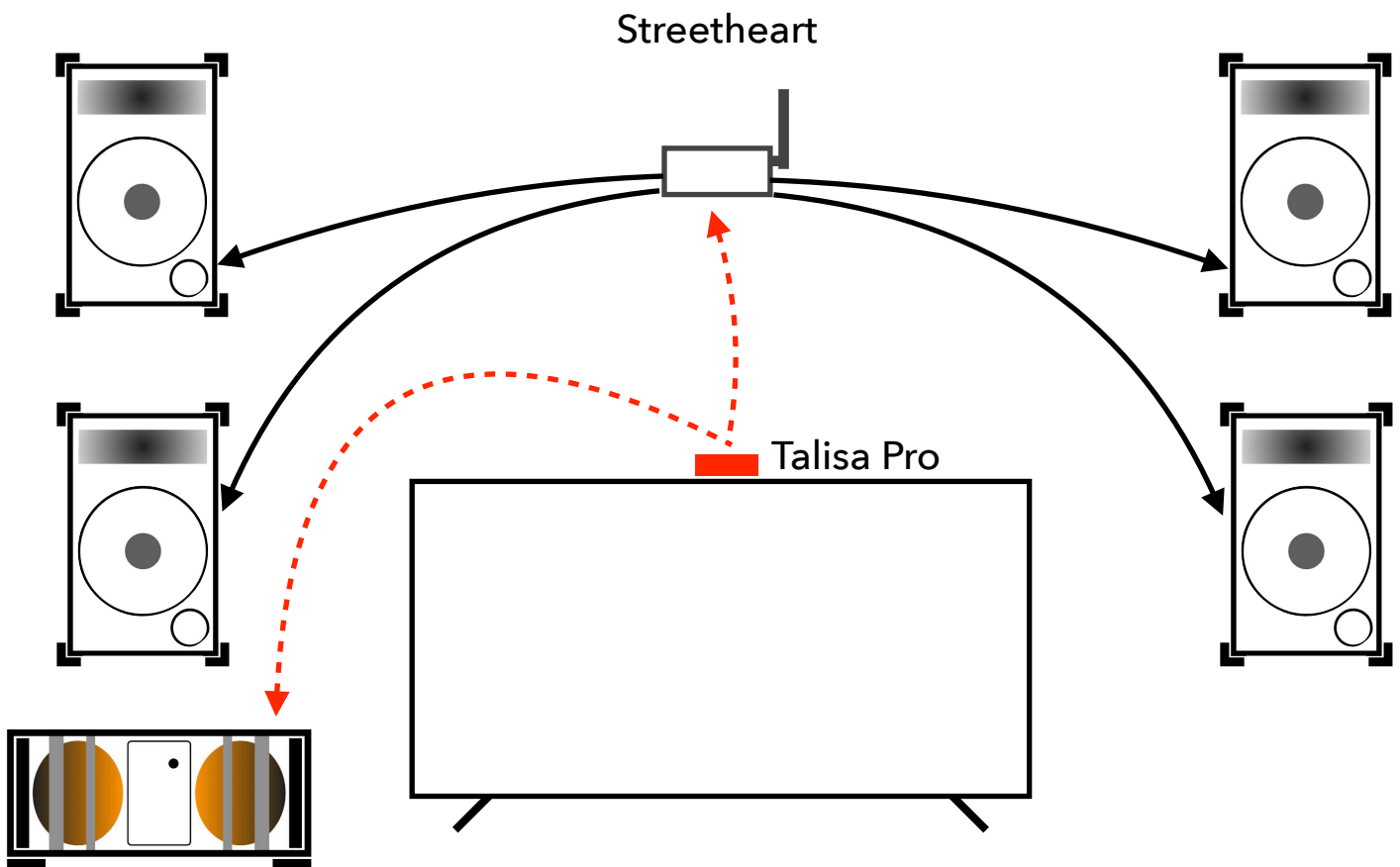
Wet Sounds A-Link Plus

Streetheart

Talisa Pro
Toslink
transmitter

Streetheart

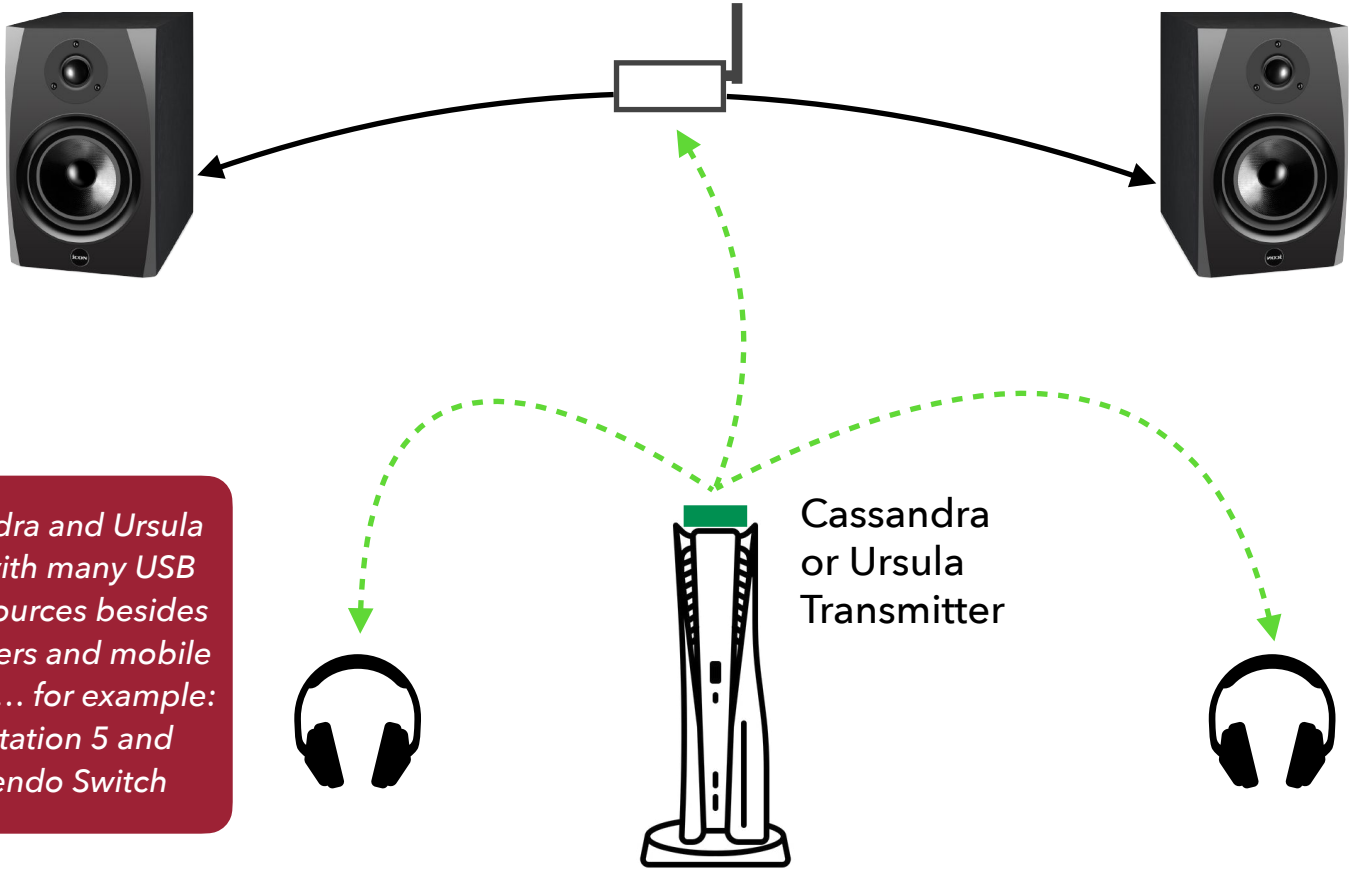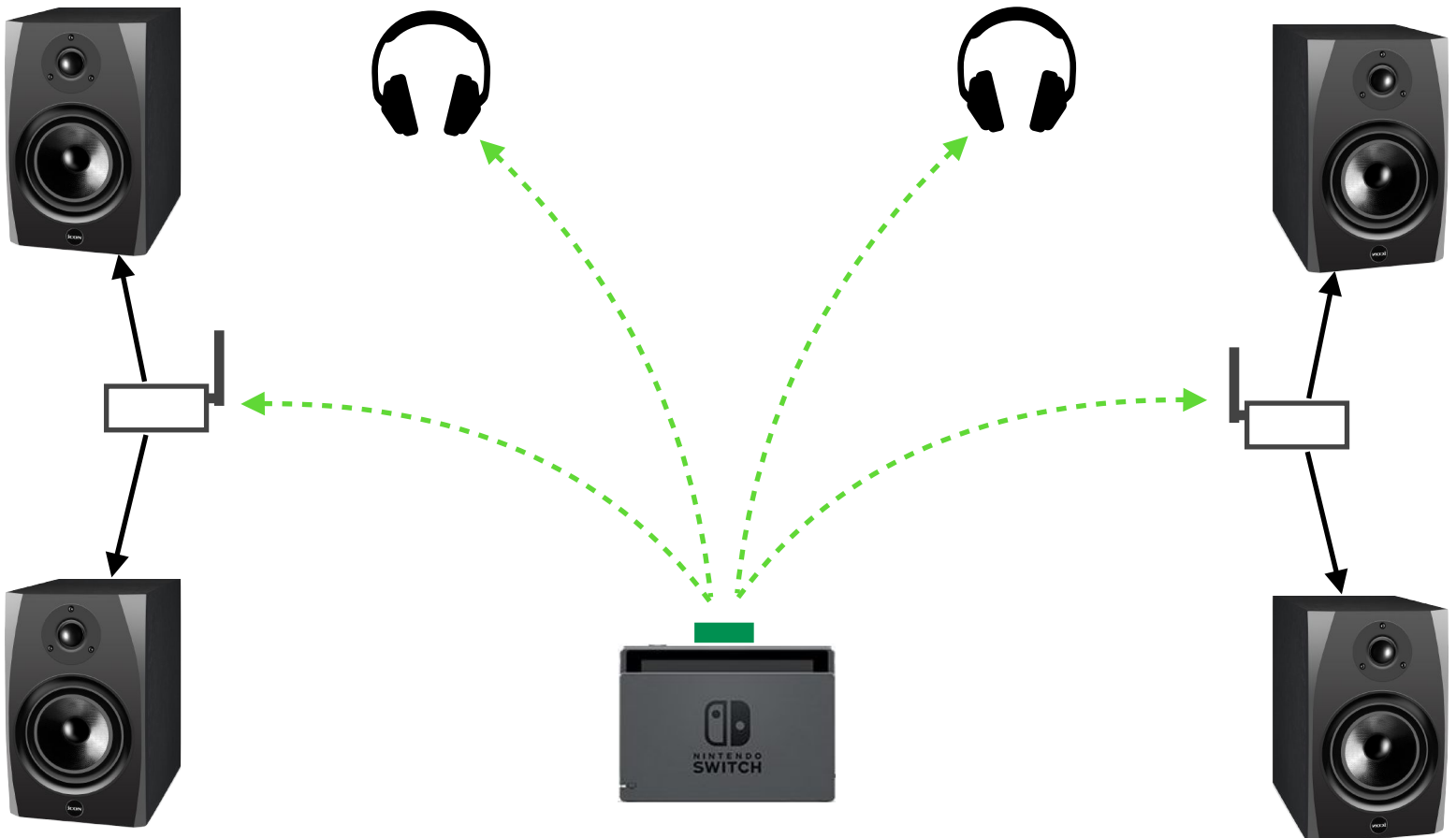Talisa Pro

direct from Sony PS5

Cassandra and Ursula work with many USB audio sources besides computers and mobile phones ... for example: PlayStation 5 and Nintendo Switch
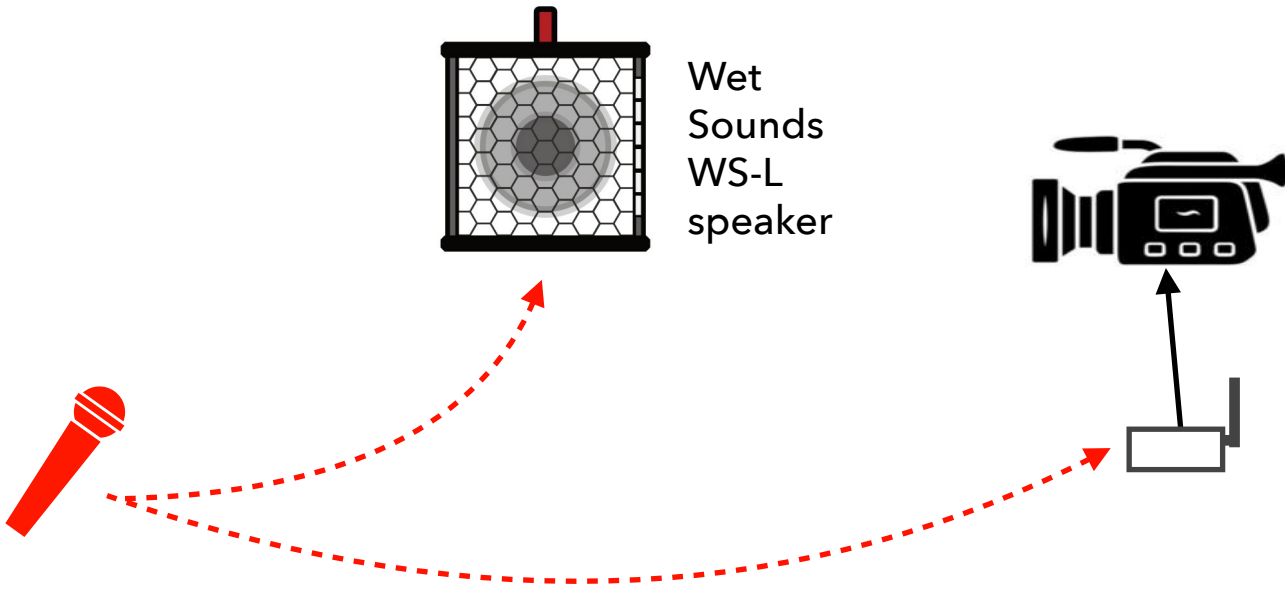
Cassandra
or Ursula
Transmitter

direct from Nintendo Switch dock

CREATOR

DILLINGER LABS

Wet
Sounds
WS-L
speaker
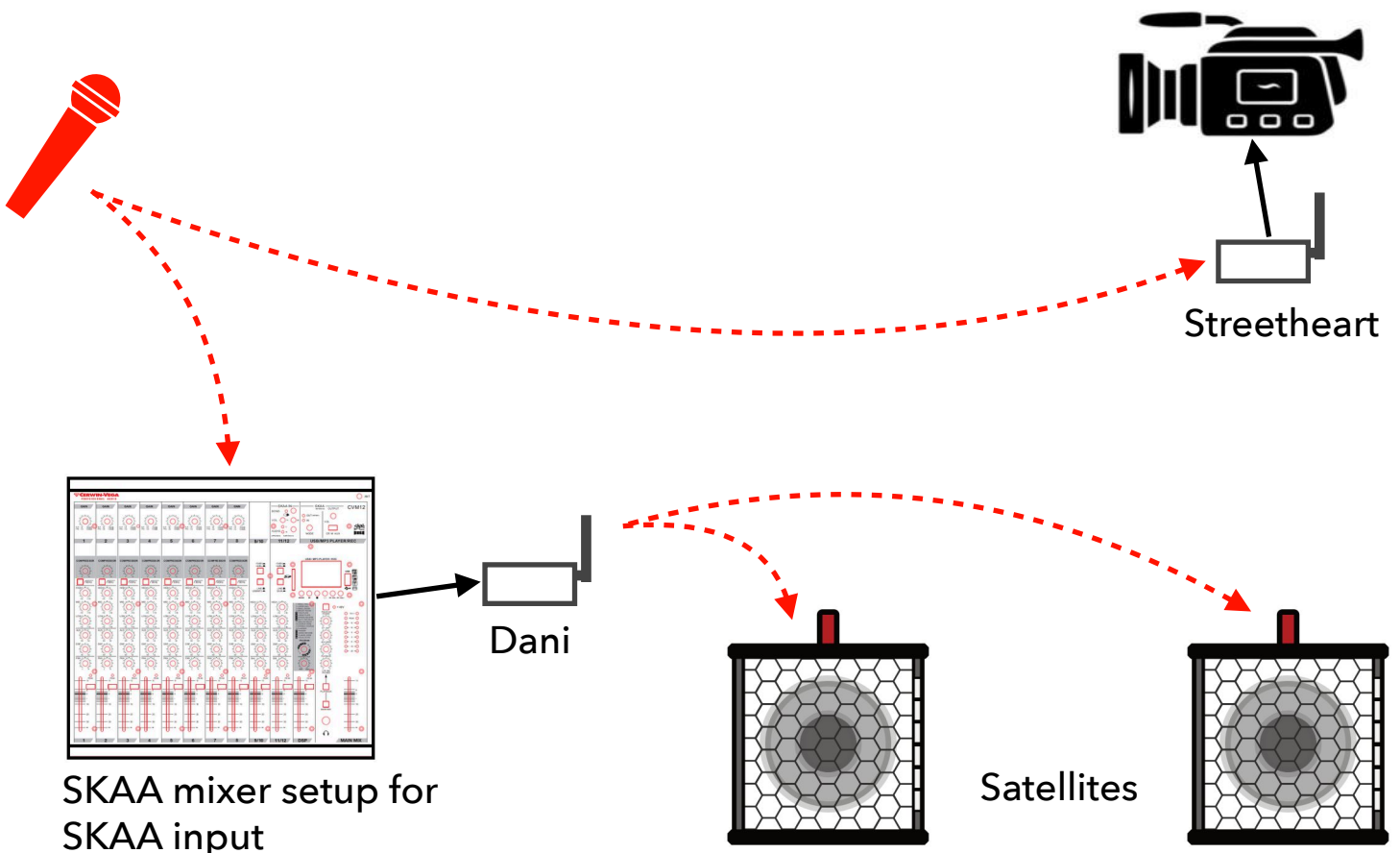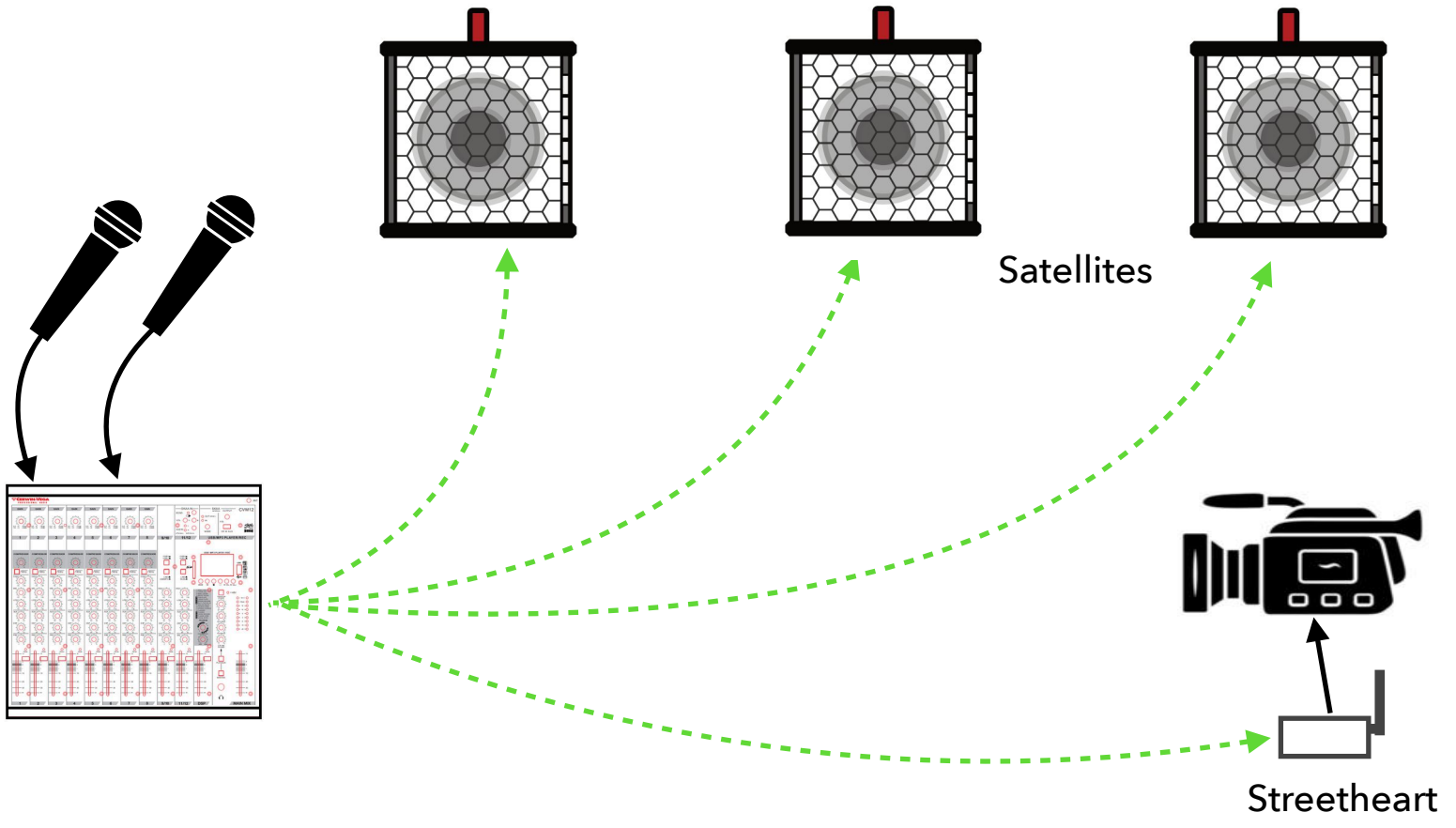
Valerie Mk2 SKAA Pro mic can send audio to 2 (or 4) destinations, so we capture that audio on our camera at the same time we're capturing video — Streetheart is a perfect receiver for this since it's long-range, and has a built-in battery

Streetheart

Dani

SKAA mixer setup for
SKAA input

Satellites

wedding / corporate

Satellites

Streetheart

---

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

Dani

Streetheart

capture performance I

Streetheart

Dani

Streetheart

Streetheart and field recorder in cameraman's backpack

Streetheart

---

capture performance II

Streetheart

Dani

Streetheart

take advantage of the THRUs on Dani to record the performance on a field recorder

Sky pro DI

-6
-12 dB
split
R
signal

DILLINGER LABS

DILLINGER LABS