valgrind 10 minute b+ fundies guide

Ok i need to write this semi-seriously because i'm actually intending for people to learn from this instead of laughing at it. let me summarize some basic, important things about techless/single-tech patterning

The Three Horsemen of Solid Fundies

- Stronger sounds get stronger movements (pitch relevancy)
- Repeated sounds get repeated movements (motif development)
- Do the above two steps without:
    - Biasing one foot's movement over the other
    - Making one part of the chart way harder than the rest of the chart
    - Making the opening the hardest part of the chart (cause then the rest of the chart could just be an email idk)

that last horseman is what i might call 'difficulty pacing' but i couldn't fit the parenthesis anywhere so i'm just saying it here applaud for my formatting. it's also the part of charting that lowkey gets missed the most by newer charters, and especially gets missed by people who primarily chart to pitch relevance.

think of its' importance with this wonderful strawman: watching an in-person tournament match sucks when the outcome's obvious by the first 30 seconds. if the latter half of your chart is quint bait while the first 30 seconds of your chart is [INSERT HIGH SCOBILITY CHART HERE] then the audience has no reason to Give a Shit about the last 2 minutes of your chart

i need examples to reference for solid fundies

- Pitch relevancy
    - Zaia's submissions to 9guys, Syncatto
    - coretech
- Motif development
    - quite literally any egg carton lower
    - Altruism

I need more examples, in Written Form

- Beginner tips for improving charts (useful sanity check after writing Chart)
- The Cromulent Guide to Crossovers (how to escalate crossovers)
- Charting Beyond the Basics (more formal Fundies Shit)

i need more examples, but this time fed directly to my mouth like a baby bird

thank you for the honestly, we need more of that in this Wretched Time

it's time to play the International Timing League's Favorite Game

~~what's this chart's block rating!!~~

wait fuck, not that

it's time to play the International Timing League's **Second** Favorite Game

What's the difference between these Patterns!?

I don't know how to place a confetti blaster in google docs so accept this unjustified photo of confetti instead 

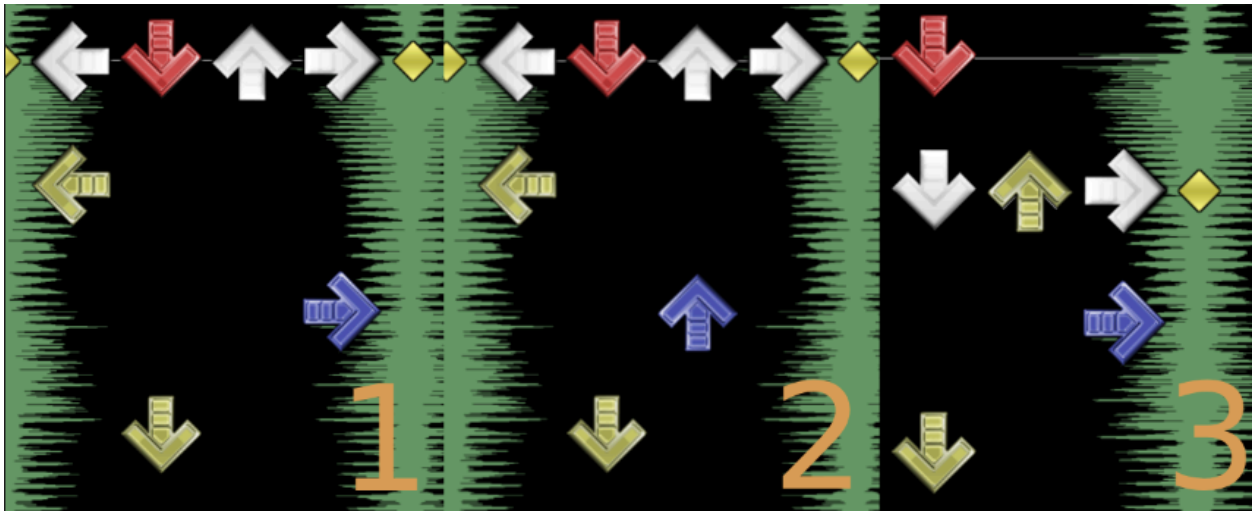
Rules of the Game

your goal is to identify where weak and strong motions of the player are to the techless patterns, and identify points where repeated sounds might happen in the music, with the following assumptions

- All patterns start on right foot
- All patterns assume the player's feet start off on the left and right arrows (the most stable possible player position, compare LR vs UD to see what i mean) (also assume the player is not crossed-over, we're not doing laterals in this Bitch)

worked example

what's the difference between these three patterns?



- Pattern 1
  - Weak motion on the first arrow (right foot)
  - Weak motion on the third arrow (right foot)
  - Weak motion on the fourth arrow (left foot)
- Pattern 2
  - Weak motion on the first arrow (right foot)
  - Strong motion on the third arrow (right foot)
- Pattern 3
  - Weak motion on the first arrow (right foot)
  - Strong motion on the fourth arrow (left foot)
- There's also potential to chart a repeated sound in the music on the down arrows but this is less important

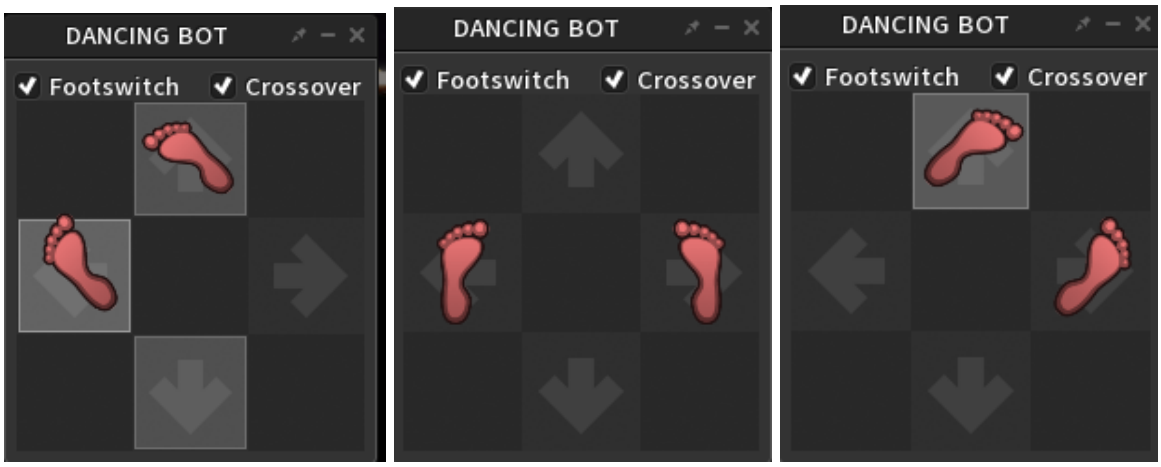
Why do I call all of these movements either weak or strong?

Imagine you have three positions the player can be facing in:

- Neutral (feet on left and right arrow)
- Left-facing (heels on down and right arrow, toes on left and up arrow)
- Right-facing (heels on down and left arrow, toes on right and up arrow)

as players, we face different directions in order to make hitting the arrows easier (e.g. try hitting the sequence LDUR with your feet facing left and you will find that it is Mega-Ass)

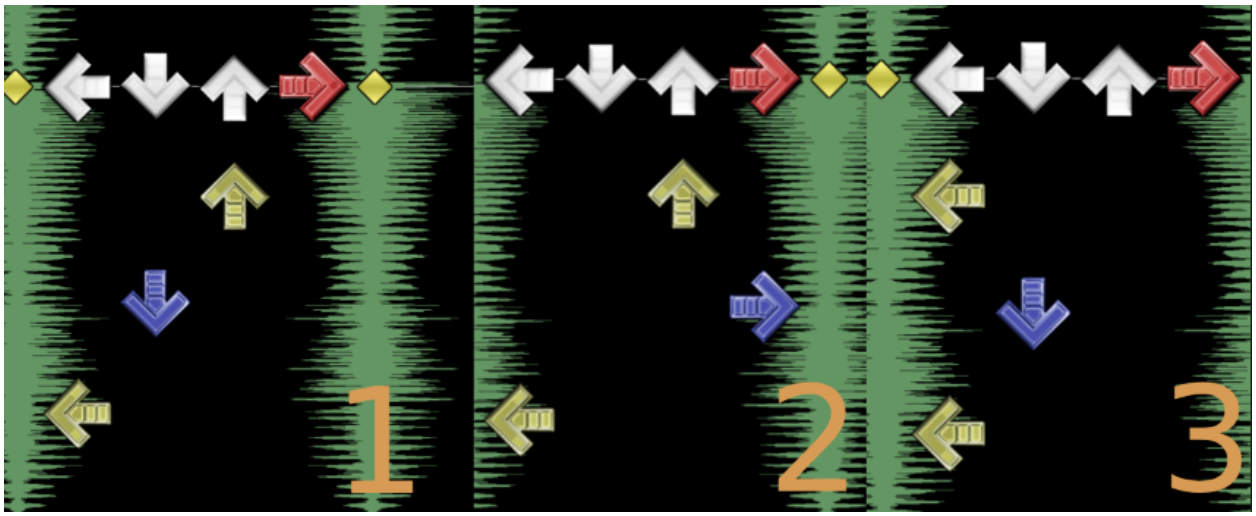
the little dancing foot guy in ArrowVortex makes this more visually obvious



weak movements gradually transition you from neutral to left/right-facing (or the other way around) within one arrow (e.g. RLD or DRL), or from left/right facing to the opposite facing within two arrows (e.g. DLRD)
strong movements transition you from left/right facing to the opposite facing within one arrow (this is usually done with a candle, aka a pattern such as DLU starting on right foot)

depending on the music, if you have a strong sound at the third arrow, you'll want to use Pattern 2. If the strong sound is at the fourth arrow, you'll want to use Pattern 3. and if the sound at the fourth arrow doesn't really stand out, but it's there anyway at the same intensity as the rest of the music, you'll want to use Pattern 1

worked example the Second



STOP. Before you go on, which way are all these patterns facing?

if you answered that they're all right-facing, gj. if you didn't, mime out each movement on your pad (or in your chair like a wriggling fish) and internalize which way you're facing

- Pattern 1
    - no repeated movements
- Pattern 2
    - repeated movements on first and third arrow (right foot)
- Pattern 3
    - repeated movements on second and fourth arrow (left foot)

so if you have a repeated sound on the first and third arrow, you'll want to use Pattern 2. If the repeated sound is on the second and fourth arrow, you'll want to use Pattern 3. Otherwise, Pattern 1.

something to think about, which one of these patterns is more difficult than the other? This probably depends on your form. If you live in stamina slidey sock world, pattern 1 is probably easier because the energy it takes to slide is less than that of lifting your foot and stepping down, or moving off the panel and back onto it. If you live in super steppy DDR world, patterns 2 and 3 might be easier for you because the energy it takes you to lift your foot and go back down is less than the energy it takes to lift your foot and move an arrow.

so depending on whether you're aiming for your chart to be played by a stamina or FA-tech audience, you might prefer one pattern over the other.

unsorted heuristics that i use

Heuristic: any approach to problem solving that employs a pragmatic method that is not fully optimized, perfected, or rationalized, but is nevertheless "good enough" as an approximation. Thank you wikipedia and Jimmy Wales

- Don't go mono (facing the same direction) for >8 steps without a good reason (e.g. drills)
- Don't anchor the same foot on an arrow for >4 steps without a good reason (e.g. right foot keeps hitting right arrow)
- mirror your patterns horizontally and vertically for the most prominent motifs, starting on down and then moving to up.
    - e.g. LD -> RD -> LU -> RU (note how RD -> LU maintains the same facing, RD -> RU might feel more dynamic in some cases)
    - You can fudge how you connect them together a bit, in some cases mono is just as valid as swapping facing with a weak movement
- Avoid doing a strong movement with the same foot >2 times in a row out of stream (>4 times in stream) unless you have a really good reason

how i manage difficulty pacing

- If one part is way harder than the rest of the chart:
    - Nerf the one part
        - Usually this ends up being a nasty footspeed/rhythmic sections that i smooth over (e.g. 32nds -> 24ths, 24ths -> 20ths, flams to brackets)
    - Buff the remaining parts
        - Lowkey this is rare, if you're new don't do this please lol
    - Make an easier version of that part to teach the pattern before FuckinG Them up (this is called an antepiece in game design)
        - Less candly, less crossover, less footswitchy, but still has the same sort of movement as The Part
- Ways to pace chart overall
    - Second half is a slightly harder version of the first half (useful for repetitive songs)
    - Sections use completely different tech (useful if the sound songs different across various parts)
        - This is a Good Thing for in-person tournaments because people won't get washed if a chart is a single tech notation (e.g. it's pretty obv who will win summersick by the time the first half finishes)
    - XMOD/FX/unique notation to add visual spice and difficulty in less note-dense sections
    - Emphasize harder sections by making the player turn left/right more often

my process of making Chart

1) Find a song with a sick-ass motif that I wanna build around
2) Chart the motifs first and pad until they're perfect
3) Don't add any more tech that isn't in the motifs unless it fits really really well. This allows the chart to build up to the big important motif well
4) Connect the rest of the chart together
5) Pad the chart at 70-80% speed to catch musical bits I missed, pad at full speed once warmed up/acclimated to the chart's design, edit in AV while miming along with music
6) Last QA check for mirroring/consistent visual design
7) GFX
8) ~~Lowers~~

usually this ends up with a really wild first draft that I pare down once I pad it, figuring out which motifs/one-offs rock and which Suck Ass

sometimes i throw it at a friend to get a second eye on it but usually i'm generally happy once i'm happy with the chart's movement.

fundamental guide to visual consistency

holds indicate to the player to keep your foot on an arrow
mines indicate to the player to keep your foot off an arrow
players usually associate that tech notated the same plays the same
if your file uses mines to indicate doublesteps, footswitches and ghost steps, and also uses them for decoration, and also makes the distance between the mine and the tech inconsistent every iteration, i will log into your discord account and post in every single honeypot channel

Oh NO! How Much Tech Should I Add in a File!?

wrong question. Instead, ask the following: **"How much do I want to punish a misread?"**

Tech is naturally harder to read than techless patterning, and if a player messes up, they may be on the wrong foot for the next pattern, causing a series of cascading errors greater than the initial missed step

this causes walkoffs during in-person tournaments (protip: walkoffs are mega ass for players, commentators, and spectators unless you are named after both a Mario enemy and an automatic robot vacuum simultaneously). Consider for a moment whether your chart wants to be associated with this depressing experience you block rating difficulty edgelord

Common Failure Problems Dishonor Nation

Oh NO! I don't know whether my patterns feel good on pad or not!

Padtest your Shit™

And by that, I mean play your chart on pad, identify whether you're making stronger movements to stronger sounds in the song, and identify whether you're using the same set of patterns for the same musical motifs. You can probably get away with a lot more repetition than you think you can tbh. We are dumb Pattern-Seeking Neuron Animals

Oh NO! I want to Padtest my Shit™ but my chart is too hard for me!

1) Lowkey, write your first charts in the range you can comfortably pass (stamina) or FA (tehc)
2) Otherwise, you can mime along on your pad to ArrowVortex piece by piece and still learn a lot about movement
3) You can even slow down the song to a comfortable BPM range for you (useful if you do not want to warm up to a 14). Even 70-80% speed is informative, and probably might help you pick out musical elements you didn't realize existed until you heard the Daycore version of it

Oh NO! I want to have good pacing, but all the strong/repeated movements are on one foot! My left foot is comfortable but my right foot wants to Go To Hell

Stamina world uses something called 16th shifting to handle this. Basically, copy paste your pattern as you would, but move it down a 16th. This causes all the strong movements to go to the other foot. Emphasis on move it **down**, not up. You want to hear the sound and then do the movement, not the other way around.

This works fine for most streamy patterning. For stamtech, it's a bit more suspect (footswitches are probably safe, crossovers probably tougher, brackets/doublesteps hell no). For actual tech, you definitely do not want all of your broken 16th rhythms to be offset. In that case, I would find a way to delete an arrow, sneak in a doublestep, or add an arrow so you can LR mirror your pattern (perhaps emphasize a different piece of the music? This is why charting is an art and not a science)

Oh NO! how do i get people to Review my Charts and be a Good Noodle while the file i spent 3 hours working on gets Trashed to Fuck

1) Find a fellow stepartist whose style you want to emulate in your chart
2) Ask if they can review your chart and give specific things that you're looking for (raw fundies patterning feedback? Tech usage? sightreadability?)
3) Hope they say yes
    a) Step 3 is made infinitely easier by being a Good Member of the community and not some rando
    b) How to be a Good Member of the community:
        i) Engage with members of the community in discussions and talks
        ii) Post your scores and be active in online tournaments
        iii) Help contribute to the community in other ways such as TOing in-person tournaments and helping maintain a codebase (FOOLPROOF MANNER TO GET PEOPLE TO BELIEVE YOU ARE A SERIOUS WELL-MEANING PERSON)
        iv) Do other things listed in the book 'How to Win Friends and Influence People' by Okay! Carnegie
4) Receive feedback
5) Maintain composure. you are not a worse person for making a bad Thing. You are good if you follow the process of (Make Thing -> Get Thing Reviewed -> Fix Thing). If you do not do this please feel free to self-flagellate all you want so I know to IGnore you in the future
6) Ask clarifying questions and show your fixes to show that you actually gave a shit and that you did not discard their feedback directly into the Idea Shredder
7) Keep making thing. Write fast, padtest fast, fail fast. You have to make the Thing to get better at the Thing there is no Theoretical Guide to Perfect Chart in existence stop obsessing over tiny details in a google doc that i wrote by the seat of my 10-year old pajamas Make the Thing you Animal
    a) Preferably if you're new make the techless thing tho lol. If i had a nickel for every time someone new came up with a wild unplayable impossibly notated pattern i could replace my LTEK with a proper DDRGame TX1000

Conclusion

anyway if you follow these rules you'll be generally fine in most cases. if you're really insane you can even submit stuff like Divine Attack and KUGUTSU to ITL without even padtesting them oops sorry