

# Line Noise

for electric guitar and effects

Adam Mirza

# LINE NOISE

## Performance Instructions

### EQUIPMENT

Models used in the premiere are given in parenthesis. Different model equipment may be possible substitutes.

#### Strat Guitar

(Premiere on Affinity Squier Strat)

The location of the pickups will affect the sound produced by the several of the performance techniques. It is particularly important that the *ponticello* region between the last pickup and the bridge have a noticeably brighter and richer.

#### Standard Electric Guitar Strings

#### Guitar Amplifier

(Fender Frontman 15G)

#### Effects Processor

(Fender Frontman 15G)

#### Thin Plastic Pick

(Dunlop Tortex 60mm picks)

The pick should be thin enough to “click” when scraped slowly against the grooves of the wound lower strings, firm enough to accept medium to strong pressure from the hand without bending and flapping against the string, but flexible enough allow the pick to “catch” the string with light pressure as well.

Dunlop Tortex 60mm picks (red-orange) are cheap, easily available in the US or by internet order, and fit the criteria very well.

*Note that picks wear down and become too dull after approx 5-10 days of regular practicing. New picks are very “live”-- perhaps too much so. The sweet spot seems to come after a few hours of playing.*

#### Finger Nails

This work requires scraping the strings with finger nails in way that could create grooves that would distract classical guitar technique. In practice, this result is minor, but it should be noted.

#### Two (2) Chrome-plated, stainless steel Guitar Slides

### TUNING (*scordatura*)

Tune all strings in a succession of untempered perfect 4ths (i.e the resulting frequencies diverge from tempered, chromatic frequencies).

The absolute frequencies of the strings are not fixed although they should remain near those of standard guitar tuning.

### SET-UP AND POSITION

While seated, lay the guitar with its strings facing up to rest flat over the thighs. Turn the volume knob on the guitar to the highest level. Engage all pickups.

Set the amplifier volume knob at or near the highest level (8-10).

*The produced volume at the loudest instants of the piece – some of the various pick scrape actions and slide “sweeps” – should have a force and impact that just approach the threshold of tolerance. It should not be necessary to change the output volume during the piece, and indeed, such manipulation might noticeably change the timbre or level of background noise.*

Set all EQ knobs to their middle position.

Prepare effect levels as desired for the Improvisation section (more explanation below).

### TIMING AND PERFORMANCE

This notation involves two primary, but sometimes conflicting, temporal perspectives:

1. Gestural time (directed immediacy): the notation serves to indicate musical-physical gestures whose *actual* shape must be discovered by the performer through musical activity, listening and experimenting both prior to and during performance (i.e. rehearsal and improvisation). The temporal characteristics of such gestures are created spontaneously; their measurable determinations only receive justification *retroactively* in virtue of the authority and integrity of the actual, performed gesture. (Such gestures prototypically relate to singular, decisive actions, but their temporal logic extends with them to series and successions via hesitations, transformations, interruptions, and sustains.)
2. Absolute duration is proportional to the length of the graphic notations along the horizontal axis. While the systematic presentation of formal time has been avoided, a general sense of pacing (the correlate, perhaps, of the beat) is necessary, as well as, therefore, some referent for that pacing. The duration of each full line (staff or staff system) of first two pages is approximately 50-60 seconds; the lines of remaining four pages should last around 30-40 seconds.

## PERFORMANCE TECHNIQUES

### PICK SCRAPE

The staff in this section displays both the motion of the pick along the string as well as the pressure applied to the pick. The vertical (y-) axis describes motion along the lowest (“E”) string between the end of the fingerboard (the bottom of the staff) and the bridge (the top of the staff). The single interior line indicates the highest (3<sup>rd</sup>) pickup; the smaller space between that line and the top of the staff is the ponticello region. Thus, notations (markings) that move “up” the staff equate to motion “up” the guitar string and towards the bridge. The relative thickness of the markings indicates the degree of pressure applied at moment.

The pick is held, pinched, between the thumb and index finger. There are two other important aspects of mechanical control for this technique that are mostly left to the performer: the location of the contact point on the pick; the angle at which the pick contacts the string.

The contact point on the pick should be in a range from the middle of the pick to its tip, usually 3/4s of the way towards the tip. In general, one gets a fatter, fuller sound by moving the contact point on the pick towards the wide part of the pick’s body, or a clearer, brighter sound by moving towards the tip. Both can be effective at any dynamic. Contact at the body with light pressure creates a soft, dull fuzz; contact at the tip with the same light pressure provides a precise crackle whose every nuance stands out as the pick is drawn across the string.

The angle at which the pick contacts the string is the most flexible way to inflect the sound quality. This angle often tracks the pressure, as it affects the leverage and location of force applied to the pick. The angle can vary anywhere from 0-90 degrees away from the vertical (z-axis) line that is perpendicular to the string. The usual position is approximately 20-30 degrees away from vertical, flattening towards 45 degrees or further with pressure, or straightening towards vertical when there is light pressure.

In addition to the degree of the angle away from the vertical, the direction of the angle (left, right, or vertical) relative to the direction of the motion of the hand and pick (up or down the string) has a substantial effect on the sound. There are three different ways the direction of the angle can relate to the direction of the motion of the hand and pick:

1. Pick pointed away from direction of motion (Right of vertical, down motion or left and up): here, the pick, leading with the contact point, is “pushed” into the string. Both fingers pinch the pick tightly and push it—almost jabbing—into the string
2. Pick pointed in same direction as that of the motion (Right of vertical, up motion, or left and down): the pick is “pulled” over the string, the hand leads the way, and the contact point follows. The mechanic is similar to that of sweeping with a broom: pressure is applied by one finger from above the angled pick to bend it slightly into the string as it is pulled along.
3. Pick pointed straight up irrespective of motion (Vertical angle the pick can be over the string, held vertically at a right angle to the string. Both fingers pinch the pick.

The “standard” relationship between the angle and the motion is #1: where not specified by the score, the pick should be pushed into the string, the angle pointing away from the movement. In passages such as the beginning, where there are many quick changes of the direction of motion, the angle of the pick will accordingly change direction; the resulting “play” feels like “dancing” on the string. The score indicates when angle-relationships #2 and #3 should be used through symbols placed above the staff that display both the left-right-vertical position as well as the approximate degree of the pick angle. Horizontal brackets indicate the length of the passage in the score included before returning to #1; arrows leading from one symbol to the next indicate a gradual transformation of the angle.

Note that adjustments to the all of these aspects of the pick technique are made continuously, instantaneously and spontaneously. Even in passages where the pacing slows and the gestures broaden, minute variations to the angle, contact location, pressure and speed can be effected in response to (imagined) score nuances. The essential is that a singular, direct link is maintained from the eye reading the score, through the hand and the touch at the contact point, to the ear (a link whose circularity and ultimate intention is established by memory and imagination).

The Left Hand lies below but near the top of the fingerboard and muffles all of the strings, without firmly pushing the strings into the fingerboard. There is one moment where the Left Hand makes a harmonic gliss up the string as indicated.

### WHINE

A high-pitch “whine” is created by moving the pick very quickly and lightly over the string. The pick is barely or only occasionally pushed or pulled “into” the string. The hand itself moves more quickly and widely than the individual markings might suggest, instead following the larger contours of their aggregation, frantically “touching down” to strike the individual markings when necessary.

Note that there should be occasional moments of “scrape” in the WHINE passage, when the thickness of the markings requires a greater pressure. Indeed, the continuum between “whine” and “scrape” should be transacted in the course of the transition to the following SCRAPE passage.

### SCRAPE (POP)

The pick in this section should remain always on and in the string with firm pressure; the thick markings indicate heavy “pops” where the pick bounds forward on the string due to a build up of pressure. “Scrapes” should also be interpolated into this section.

### SQUAWK

A second set of markings (straight lines) indicate motion of the Left Hand, which pinches the lowest (“E”) string with thumb and the index finger. The y-axis of the staff continues to specify the same location range on the guitar: the span between the end of the fingerboard and the bridge, with the interior line indicating the highest pickup.

The motion of the pinching changes the “vowel” of the Pick Scrapes and produces “squawks”. Although the overall left and right hand motions (their larger “lines”) move in counterpoint (with an additional layer of trend in changes of pressure in the right hand), at the level of each individual gestures/markings, the two initially unify into single gestures during the first part of the SQUAWK section, before that unity gradually dissolves or becomes nuanced over the course of the section.

## **(SCRAPE)**

In this passage, the scraping alternates between the 6<sup>th</sup> string and the 4<sup>th</sup> and 5<sup>th</sup> strings. Note that the pressure on the 4<sup>th</sup> and 5<sup>th</sup> strings is intended to be generally similar to that on the 6<sup>th</sup> string; in order to quickly and clearly show the application to two strings, a compromise has been made. The total width (rather than individual width) of the two line-markings here indicates the desired pressure. In any case, the performer must adjust the pressure, angle and even location on the string such that a “gritty” scrape can be produced on the 4<sup>th</sup> and 5<sup>th</sup> strings; the mechanical components of those strings differ from those of the 6<sup>th</sup> string.

## **SWIRL**

The bottom two lines of this span, as well as their span, equate as indicated to the outer lines and span of the previous staff. In other words, the bottom portion of the staff in the SWIRL section continues to present “horizontal” (left-right) motion between the end of the fingerboard and the bridge, although the location of the pickup has been dropped.

The top six lines indicate the six guitar strings, descending from the 1<sup>st</sup> to the 6<sup>th</sup>. (note that the lowest of the 6, which represents the 6<sup>th</sup> string, serves doubly as the top line of the bottom portion of the staff). The top portion of the staff indicates the “vertical” movement up and down (or across) the strings.

Straight lines in either portion indicate the maintained (or sometimes gradually transforming) location of the pick in a particular horizontal or vertical position. (In the top portion this would be on a particular string or between two strings). If it is necessary to choose, the priority of the performer’s focus should be for realizing the gestures indicated by the “drawn” markings rather than accuracy of placement according to the straight lines.

There are a few characteristic gestures in this section:

The “sweeping” swirl is indicated by the circular patterns in the “vertical” portion and the upward “sweeping” strokes in “horizontal” portion. The key motion of this gesture is a diagonal sweeping stroke upward and rightward across the strings. The pick should be angled at position #2 (see above) to the beginning of the stroke, swept and pulled upwards with varying weight and hesitation; this motion constitutes the “attack” and rhythmic “accent” of the gesture. The follow-through circles back around; here, the pick angle is closest to the vertical position, #3.

A “tremolo” can be created in either the “horizontal” or “vertical” dimensions. This is indicated by a straight line in one portion of the staff, and a jagged, back-and-forth marking in the other. The angle position should be vertical, #3.

Otherwise, the various markings should be interpreted as Pick Scrapes, although it will also be necessary to interpolate new techniques between these categories.

## **FINGER NAILS**

This staff consists two portions: a lower set of 5 SPACES (formed by six lines) and an upper, outlying line. The lower 5 spaces refer to the lower 5 strings (the lowest space is the 5<sup>th</sup> string). The span between lines indicates the “horizontal” distance on a string of a few inches centered or near the lowest pick up. Although performers should, as always, experiment, it should only be necessary to use the index, middle and ring finger—and in fact, mostly just the index and middle. Thus the center of the hand will shift in position between strings as necessary.

The finger nail contacts the string at the end of the nail; the nail scrapes as it is pulled into and against the string. On the lower, wound strings, the scrape will be more pronounced, while on the upper, thinner strings the result is a whisper. Even where back-and-forth motion is indicated, the rhythmic accent is on the “pulling” motion up the string; the reset is a downward graze that only becomes more pronounced at slower alternations.

Thick stroke-markings indicate increased pressure, as before, but also indicate a priority for that particular stroke on the particular string. Lighter stroke-markings appear in conjunction with similar markings on other strings and indicate a rustling trill (of varying speeds, as indicated), with internal accents created by the pulling motion.

The upper, outlier line indicates a tight, “noisy” strumming across all the strings using the tips of the finger-nails. The markings indicate speed of activity and pressure. In some cases, interpolation needs to be made between the strumming across the strings and the pulling action along individual strings.

This section also includes a pitched, double-stop that is traditionally notated. It should be performed without adjusting the position of the guitar. The pitches are written transposed and tempered to specify the proper fretting; the score does not indicate the sounding, actual frequencies.

## **FINGER PAD**

The three spaces of this staff indicate the three lower strings (4-6). Other than the reduction to these three strings, eliminating the upper, outlier line, and the switch to the pad of the tip of the finger, this staff continues, at least initially, the structure from the previous staff. The span of each space describes the same location on a string: a 1-2 inch length near the lowest pickup.

The string is excited by the fingertip pads (again, using the index, middle and pointer fingers, with a preference for the first two when possible). Although the markings suggest continuity the actual action and the shape of the resulting sound is closer to those of the “pops” in the SCRAPE (POP) section (see above): the finger pad is pressed into the string, and the movement is a “bounding” forward and backward as the built-up pressure “pops” the finger in one direction or the other. The thicker the marking, the heavier the pressure and the “poppier” the result. Slower or lighter markings will tend towards a softly, rough, continuous “sliding.” There should always be enough pressure that the “whisper” is avoided.

The additional staff for the Left Hand that enters in the middle of this section describes motion by the Left Hand along the fingerboard. The bottom line refers to the fingerboard nut; the top line indicates the end of the fingerboard. The Left Hand action is to glide along the strings and the fingerboard without pressing the strings onto the fingerboard. The resulting sound is a “rustling sweep” that can be somewhat loud when the motion is quick and broad.

Soon after the Left Hand motion begins, the Right Hand “jumps up” in position to the top pick-up. Here, dots indicate “electric pops,” where a finger pushes the string down to contact the pick-up, resulting in loud, electronic pops.

## **LINE NOISE**

Begin the LINE NOISE section by un-plugging the guitar cable jack from the guitar. This will create both an electric pop as well as acoustic noises from the physical action, neither of which should be either suppressed or exaggerated. (Similarly, the dramatic/theatrical effect of this passage does not need to be exaggerated or played up in any way to be successful. Such effect will be a natural result.)

The single line of the staff indicates the passage of time. The jack of the cable should be held very close to a metal portion of the guitar (such as the bridge). Dots again indicate “electric pops” caused by slightly tapping or touching the tip of the jack against the metal region. The tap should create a loud pop, but it must also be very quick and light such that they lack any real frequency content. The straight lines indicate continuously holding the tip of the jack onto the metal; the resulting “line noise” will have a frequency content that depends on the amp, the cable, and the interference of the electric current.

Back-and-forth markings indicate shaking or sweeping the tip back-and-forth over a region of metal; this should add noisy, rustling interruptions to the “line noise.” The rougher the result the better. For this reason, running the tip erratically over the various indentations and machinations of the bridge might be preferable to skimming along the flat metal side of the bridge. The back-and-forth markings should be interpreted as SYMBOLS indicating degree of activity and NOT, like most of the other markings in the score, as analogous representations of specific physical motions. The amplitude of the markings addresses the degree of intensity of the rustlings, their noisiness and conspicuousness.

## **IMPROVISE (Line Noise)**

While maintaining the “line noise” generated by the sustained contact of the jack with the metal on the guitar, improvise with effects that change the timbre of the “line noise.” Such effects include but are not limited to the EQ options on the amplifier and distortion or drive. The passage of time will either involve “sustain” at one particular timbral point for 2-15”, “gradual transform” along a continuum (i.e. slowly turning an EQ knob) over 2-15”, or “instant change” (engaging the distortion button). There can be other spontaneous changes as well.

The section ends by plugging in the jack to the guitar (this may cause the open strings to reverberate), and pausing in silence for 10-15” (at some point during which the two metal slides should be taken).

## **[SLIDE] TAP and HOLD**

The markings in this section indicate a similar action with the slide in the Right Hand; gently and lightly tap or tap and hold the slide on the 1st string at a point near the highest pickup (the precise location and frequency do not matter). The slide is held at one of its ends, with the other end used to contact the string. The wrist or forearm of the Right Hand can rest on or near the bridge; the slide points down the strings toward the nut.

## **SWEEP**

Both hands are used in this passage. The Right Hand remains in the location and position of the TAP and HOLD passage; the Left Hand now mirrors the Right Hand, holding the second metal slide at one end, while the other end contacts the string(s) pointing up towards the bridge. The contact point is the edge of one end of the slide.

The staff system contains a two-portion staff for each hand. The upper portion of each staff indicates the “vertical” motion along the string(s), between the end of the fingerboard and the

The lower portion of each staff indicates “horizontal” motion across the 6 strings (the lowest line is the 6th string). Markings that remain between two staff lines indicate that the slide should touch both strings, often while the slide is moved in the other axis according to the notations of the upper portion.

The notation in this passage exploits the liminal transition between symbolic (discrete) and analogous (continuous) representations. That is to say, while the markings of any one voice (or parameter of a voice) can be interpreted as analogous representations of motion, it is necessary to limit one’s focus and analogous interpretation to one staff or even one portion of a staff; the other, simultaneous markings that are not the object of this focus will need to be interpreted in that moment as symbols indicating a degree and range of activity, rather than the actual motions. In accordance with this ambiguity, the desired effect is not precisely “contrapuntal,” but rather the liminal overlap of contrapuntal and “field” textures.

The “gestural” center of these markings is found neither in nor exclusive of their finest detail, but rather interpolated into a wealth of “sub-gestures” within the SWEEP technique. Such gestural possibilities need to be identified in advance by the performer by close attention to the score in practice. Motion may be restricted to one axis: the slide may be moved up and down along one or two strings creating a soft groan. Alternatively, one hand may “sweep” the slide across the strings according to the jagged markings in the upper-portion of the staff, without moving the hand position if the lower portion of the staff is static. In cases where both axes are engaged, one may be primary (faster motion) or both may be roughly equal. As the notation is dynamic, improvisation as interpolation is central to this passage.

## **SLIDE**

The three lines of the staff in this section, from the bottom up, indicate the nut, the end of the fingerboard, and a point an inch or so below the bridge. (The immediate ponticello region within an inch from the bridge gives a distinct attenuation and thinning of the sound with this technique. This effect should be exploited when markings bring the slide to this point; however, proceeding to the bridge itself only takes place at the very end of the piece.)

The slide is turned horizontal such that its length extends across all six strings; it is held between two fingers (thumb and middle finger), one at each end of the slide. The slide is slid continually along the strings at varying speeds following the markings. The Left and Right Hands and slides alternate whenever there is a gap or break between markings. The initial attack can vary from imperceptible (when given enough time to prepare) to strong and aggressive if the slide is almost flung down into the string; the degree of attack should follow the dynamic of a particular phrase, which is itself a function of the speed of motion. Lines that are straight indicate a stiff wrist and finger position; curved lines specify looser wrists and fingers.

Note that there are no actual gaps where a slide is not pressed into the string in this section; in fact, there are some moments where the alternations between hands might quickly overlap (usually during abrupt changes or interruptions), and a few gestures where one hand/slide sustains a continuous movement while the other hand "jabs" in to interrupt.

## **SLIDE (STATIC MOTION)**

Slow and sensual.

## **KLANG!**

Extremely strong, aggressive attacks. Long sustains. Silences.

## **SHIMMER**

Here the L.H. slide creates a "shimmer" sound as it slides below the sustained R.H. slide. At the end of this section (i.e the end of the piece), the two slides move together, almost touching, across the attenuating boundary point an inch below the bridge.

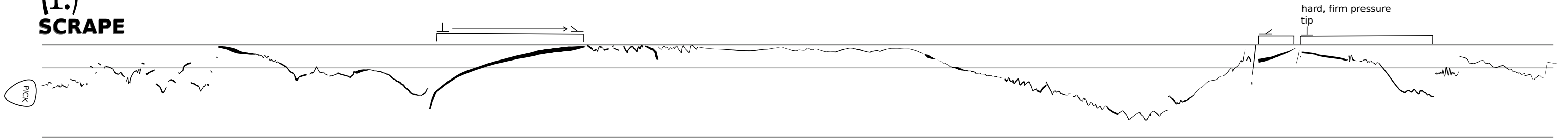


# Line Noise

for electric guitar and effects

Adam Mirza  
(1978)

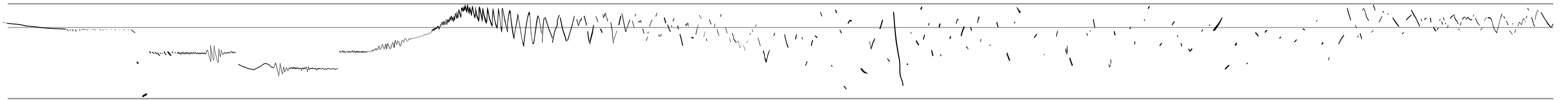
## (I.) SCRAPE



(L.H. muffle strings) →

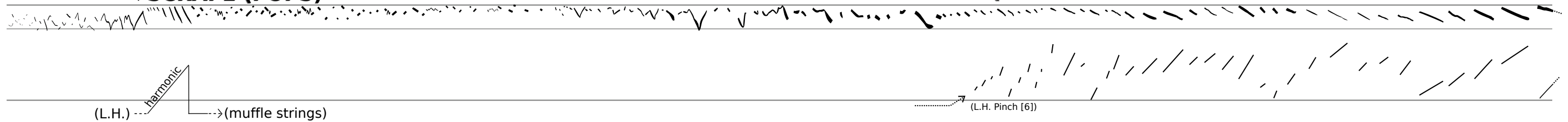


## WHINE



## SCRAPE (POPS)

## SQUAWK

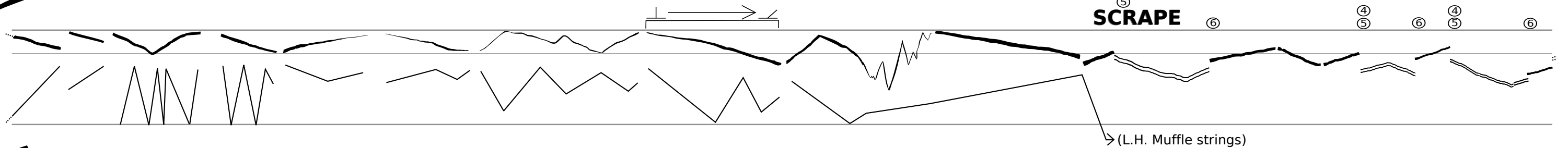


(L.H.) → harmonic → (muffle strings)

(L.H. Pinch [6])



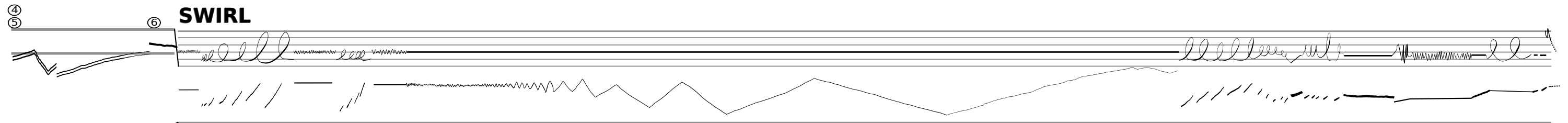
## SCRAPE



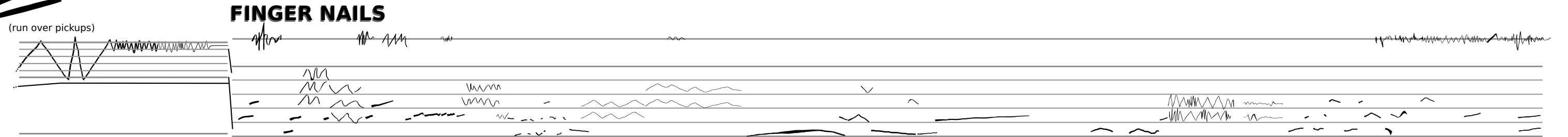
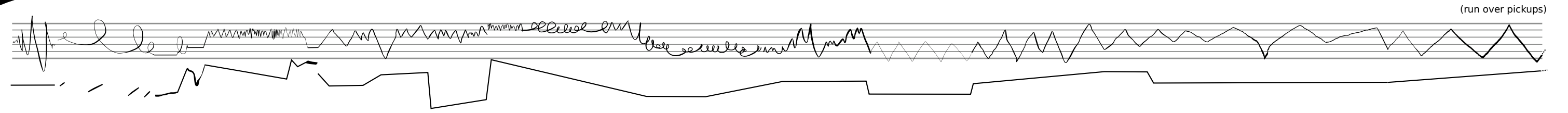
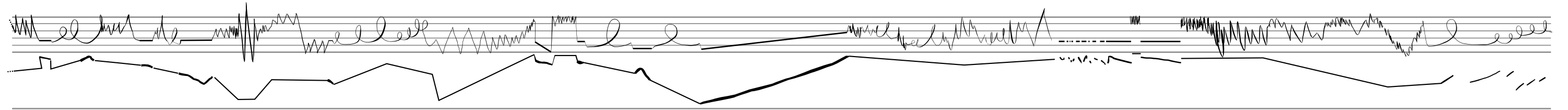
(L.H. Muffle strings)



## SWIRL



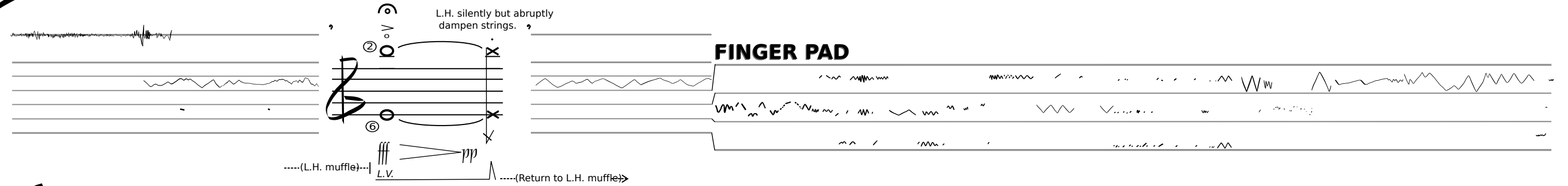
- Line Noise -



**FINGER NAILS**

(run over pickups)

----(Cont. L.H. muffle)-->

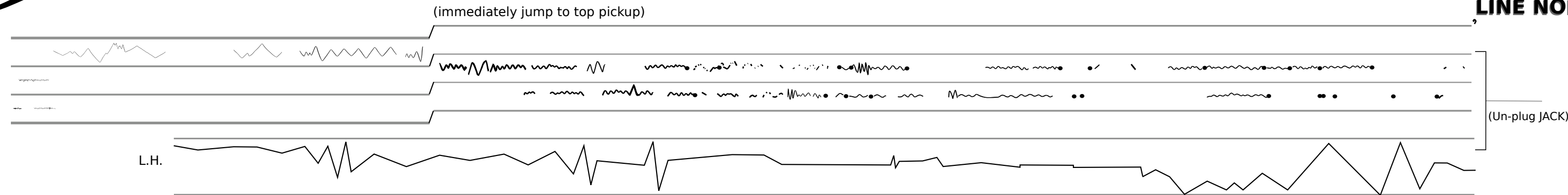
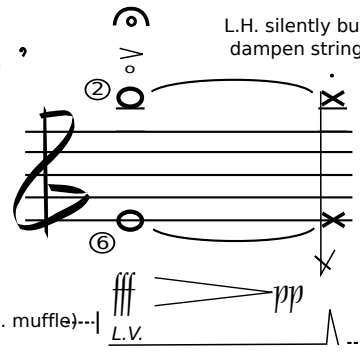


**FINGER PAD**

L.H. silently but abruptly dampen strings.

----(L.H. muffle)-->

----(Return to L.H. muffle)-->



**LINE NOISE**

(immediately jump to top pickup)

(Un-plug JACK)

L.H.

(L.H. no longer muffles)



Dots: are single POPS. very quick and "light", just touch the tip

**(II.)**  
**TAP and HOLD**  
 ① SLIDE R.H.

(L.H. Muffles strings at end of fingerboard, while holding Slide, and preparing for )

**SWEET**  
 SLIDE R.H.

**IMPROVISE**  
 with EFFECTS

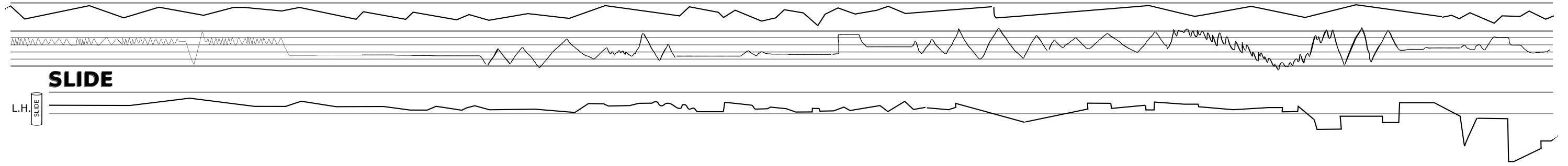
60-90 seconds

PLUG IN 10-15"

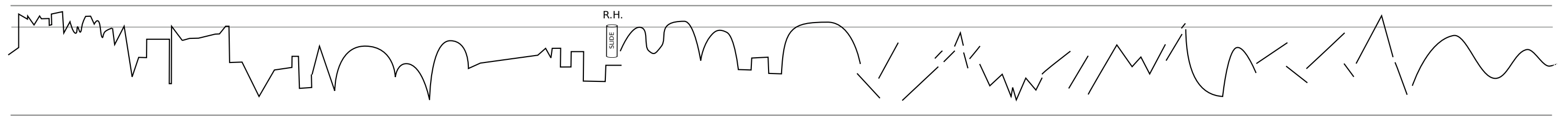
(Let open strings sound)

L.H. SLIDE

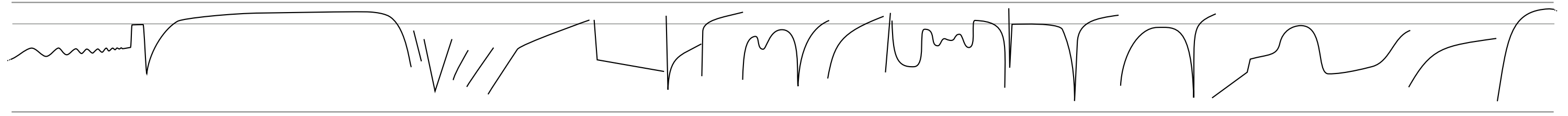
(L.H. rotate slide)



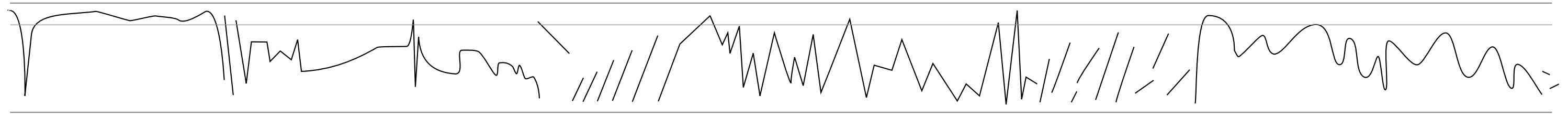
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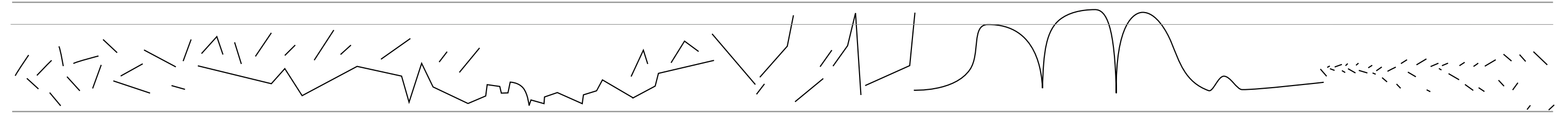
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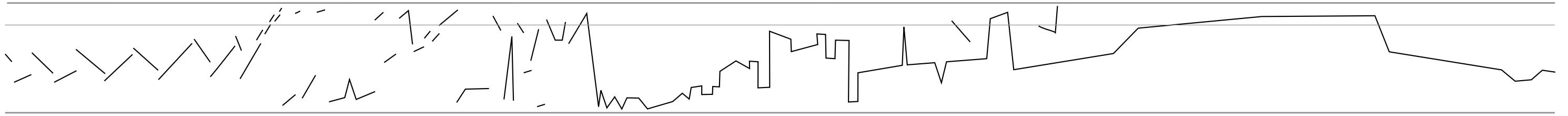


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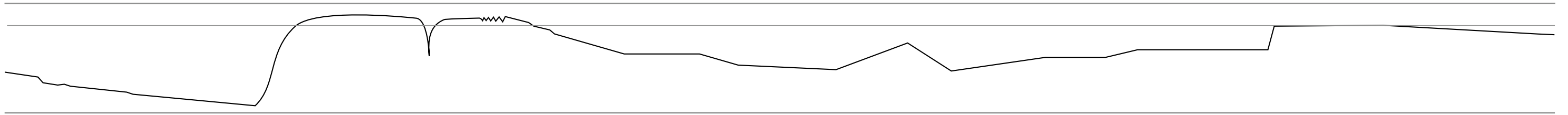


- Line Noise -

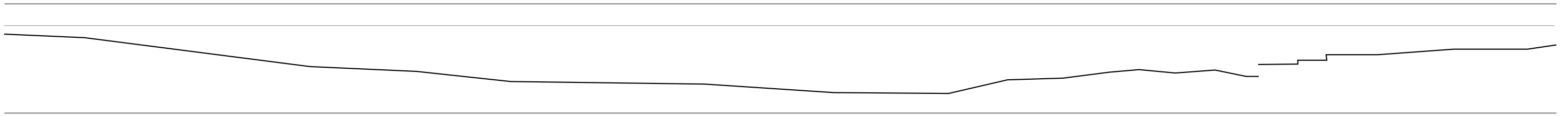
**STATIC MOTION**



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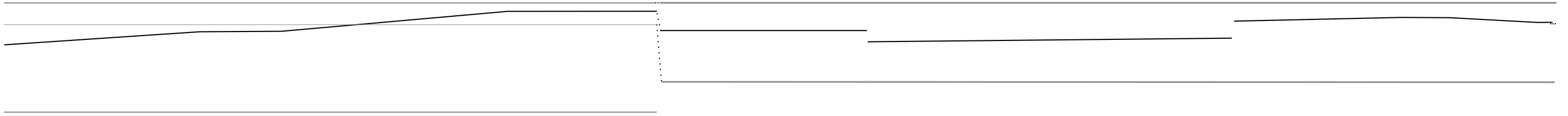


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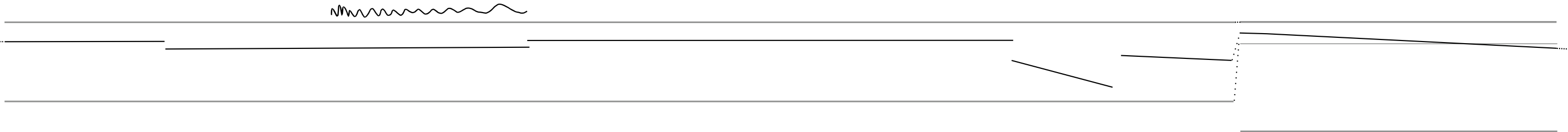


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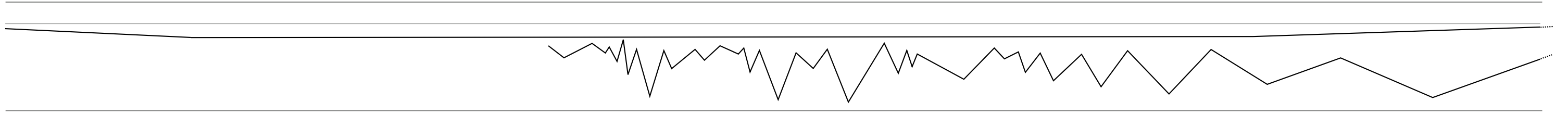
**KLANG!**



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**SHIMMER**



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