Cute Lab — Messed Up

- Manual PDF

Manual PDF

CuteLab Messed Up — using it to create melodic components

Messed Up is **not a pitch generator by itself**. It's a **clock processor / metric modulation source** that creates related pulse streams: **beat**, **divide**, **downbeat**, **truncate**, and **EoM**. So its role in melodic patching is to become the **timing brain** for sequencers, quantizers, sample-and-holds, shift registers, envelopes, and switches.

If you pair it with melodic modules, it can generate surprisingly rich melodic behavior by controlling **when notes happen**, **when patterns reset**, and **when phrase structure changes**.

What the module contributes musically

From the manual, Messed Up provides:

- **Beat output**: the main pulse stream
- **Divide output**: a mathematically related subdivision/superdivision based on the `divide : beat` ratio
- **Down output**: measure reset / phrase marker
- **Truncate output**: syncopated variation of the divide rhythm
- **EoM output**: trigger when a metric modulation actually occurs

Its central trick is **metric modulation**:

- new tempo = current tempo × `divide / beat`

Example: - if tempo is 120 BPM - beat = 4 - divide = 3 - modulation moves to 90 BPM

That means it can transform one rhythmic grid into another while staying structurally related. For melody, that is extremely useful.

Best melodic uses

1. Clocking a pitch sequencer with evolving note density

The simplest use:

- Patch **Beat out** to the clock input of a sequencer
- Send sequencer CV to an oscillator through a quantizer
- Use **Down out** to reset the sequencer

This gives you a stable melodic phrase.

Now introduce motion:

- Patch **Divide out** to a second sequencer, or to a switch that occasionally advances the melodic line differently
- Trigger **modulation**
- After modulation, the former subdivision can become the new felt pulse

Result

Your melody feels like it has **changed gear** without becoming unrelated. This is excellent for: - transitions - verse/chorus tempo illusions - polymetric lead lines - gradual destabilization of repetitive pitch loops

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2. Creating call-and-response melodies with Beat vs Divide

Because **Beat** and **Divide** are related but different clocks, they work well as two melodic lanes.

Patch idea

- **Beat out** → clock sequencer A
- **Divide out** → clock sequencer B
- Sequencer A and B both go to different oscillators, or into a precision adder/mixer
- **Down out** resets both

Try settings like: - beat = 4, divide = 3 - beat = 5, divide = 4 - beat = 3, divide = 2

Why it works

You get two melodies that: - share a common phrase structure - drift against each other - periodically realign

This is one of the easiest ways to produce: - canon-like lines - ostinato + lead relationships - pseudo-counterpoint in a small rack

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3. Using Downbeat as phrase reset for melodic coherence

The manual emphasizes that the **down output** marks the beginning of the measure defined by `beat`.

That's incredibly valuable for melody.

Use Down out to:

- reset a step sequencer
- reset a shift register melody

- fire an accent envelope
- trigger a sequential switch reset
- re-seed a random source at phrase boundaries

Musical effect

You can let a melody get rhythmically strange between downbeats while the phrase still feels intentional.

For example: - **Divide** clocks note changes - **Down** resets the sequence every 4 or 5 beats

This gives: - polymetric inner activity - stable phrase start - easier “hook”-style repetition

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4. Truncate output for syncopated melodic rhythms

The **truncate output** is one of the most interesting parts of the module. It follows the divide rate, but the pattern is cut off and reset within the beat-defined span.

This is excellent for melody because it can drive: - note triggers for syncopated basslines - arpeggiator advance inputs - sample-and-hold clocks - envelope gates for plucked voices

Patch idea

- Pitch source: sequencer or quantized random
- **Truncate out** → envelope gate or sequencer clock
- **Beat out** → another layer, such as a bass pulse
- Modulate truncate amount by CV

Result

Your melodic rhythm gains: - clipped phrases - repeated partial cells - syncopation that still remains locked to the larger structure

This is especially strong for: - techno stabs - IDM melodies - broken arps - syncopated bass counterlines

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5. EoM output as a melodic event trigger

The **End of Modulation (EoM)** output sends a trigger when the modulation actually happens.

That means it can mark **formal change** in a patch.

Good uses for EoM

- transpose a sequencer at the exact moment of modulation
- switch to another stored sequence
- open a VCA for a lead voice
- trigger a new random voltage for a melodic section
- change quantizer scale
- advance a song-stage sequencer

Musical effect

Metric modulation stops being only rhythmic; it becomes a **harmonic or melodic scene change** too.

For instance: - EoM → sample-and-hold new transposition voltage - Beat clock continues the sequence - At each modulation, the melody shifts key center

That gives very performable melodic form.

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6. Round Trip mode for tension and release in melody

In **Round Trip** mode, one modulation moves away from the original tempo, and the next returns.

This is very musical for melody.

Patch

- Beat clocks main melody
- Divide clocks ornamentation or grace-note sequencer
- Use Round Trip mode
- Trigger modulation manually during transitions

Result

You can create: - “stretch away / snap back” phrasing - melody sections that temporarily re-interpret the pulse - dramatic fills that resolve exactly back to the original framework

This is especially good live because it behaves like a rhythmic equivalent of harmonic departure and return.

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7. One Way mode for melodic drift and escalation

In **One Way** mode, each modulation is relative to the already modulated tempo.

That means repeated modulations can move the melody progressively farther from the starting groove.

Melodic applications

- increasingly dense arpeggios
- slowing melodic ostinati
- evolving generative lines
- unstable polyrhythmic canon structures

Patch idea

- Beat → main sequencer

- Divide → secondary sequence or ratchet trigger
- Repeatedly modulate in One Way mode
- Use Down out to keep occasional phrase resets

This can make a melodic system feel as if it is **spiraling** without becoming random.

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8. Beat/Divide latch for phrase-safe melodic changes

The manual notes that beat and divide changes can be **latched to the next downbeat**.

This matters a lot for melody.

If you change rhythmic ratios while clocking sequencers directly, the resulting melodic phrase can jump awkwardly. Latch avoids that.

Good performance workflow

- Turn on latch for beat and/or divide
- Queue a new ratio during playback
- Let it take effect on the downbeat

Musical benefit

- phrase-preserving timing changes
- cleaner pattern transitions
- less accidental derailment of sequencers

This is ideal when driving tonal sequencers that should stay musical during live tweaking.

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9. Internal clock + modulation as a self-contained melodic conductor

Messed Up can run on its **internal clock**, so it can be the master transport for a whole melodic patch.

Self-contained melodic patch

- Internal clock as master
- Beat → main sequencer clock
- Divide → modulation sequencer or auxiliary melodic trigger
- Down → reset
- Truncate → occasional ornament notes
- EoM → transpose or switch scales

Now the whole melodic patch is governed from one panel: - BPM - beat length - subdivision ratio - modulation timing - phrase change events

This makes it a strong composition/performance module even though it doesn't output pitch CV.

Specific melodic patch recipes

Patch 1: Metric-modulating bassline

Goal: bassline that changes rhythmic identity but stays coherent.

- Beat out → bass sequencer clock
- Down out → bass sequencer reset
- Sequencer CV → quantizer → oscillator
- Envelope from sequencer gate or Beat
- Set beat = 4, divide = 3
- Trigger modulation at phrase end

What happens:
The bassline initially feels quarter-note based; after modulation, the triplet relation becomes the new pulse. Great for modular techno and electro.

Patch 2: Dual melody canon

Goal: two melodies from one timing structure.

- Beat out → sequencer A clock
- Divide out → sequencer B clock
- Down out → reset both
- Sequencer A → oscillator 1
- Sequencer B → oscillator 2
- Optionally use same pitch row but different sequence lengths

What happens:
You get melodies that braid together. Changing beat/divide changes the relationship dramatically.

Recommended ratios: - 3:4 - 4:5 - 5:7

Patch 3: Syncopated arpeggio machine

Goal: animated melodic rhythm.

- Pitch CV source: arpeggiator or quantized random voltage
- Truncate out → sample-and-hold clock or envelope trigger
- Beat out → reset arpeggiator every phrase
- Down out → reset switch or sequencer
- Slowly modulate truncate amount

What happens:
The same pitch source is articulated in changing syncopated slices. Feels composed rather than random.

Patch 4: Harmonic scene changes on modulation

Goal: make modulation trigger harmonic movement too.

- Beat out → sequencer clock
- Down out → reset
- EoM out → sample-and-hold a transposition voltage
- Transposition voltage → precision adder with sequencer CV
- Quantizer after adder

What happens:
Every actual metric modulation also shifts the key center or melodic register. This is one of the most elegant uses of EoM.

Patch 5: Controlled generative melody

Goal: generative line with phrase structure.

- Divide out → clock random CV source / Turing machine / shift register
- Beat out → trigger envelope for notes
- Down out → reset random source or sequencer
- EoM out → change scale or probability setting
- Use One Way mode for evolving timing

What happens:
The note stream mutates, but downbeats keep the melody feeling sectional.

Useful settings for melodic work

Beat Count / Div Count

These settings change pulses-per-note: - 1PPN - 2PPN - 4PPN - 8PPN

This is very handy if your melodic sequencer expects faster clocking. You can: - keep the same phrase logic - but drive ratcheting, denser arps, or faster note advances

A strong trick: - Beat Count = 1PPN for main melody - Div Count = 4PPN for ornament sequencer

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Duty Cycle mode

Two pulse modes: - **1:2** = 50% duty-cycle pulse - **0.01** = fixed 10 ms trigger

For melodic modules: - use **0.01** when clocking sequencers or trigger inputs that prefer short pulses - use **1:2** when driving gear that wants more gate-like behavior

This can matter a lot when envelopes or sequencers double-trigger unexpectedly.

Beat Input Reset mode

The beat CV input can become a **reset input**.

That means an external sequencer or master phrase trigger can force Messed Up back to the top of its measure.

For melodic systems, this is excellent if you want: - one master sequencer controlling all phrase starts - Messed Up still generating complex internal subdivisions - hard synchronization between melody and clock modulation structure

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Modulation Style

The manual lists three styles:

- **SynC**: after modulation, beat count adjusts to equal divisions
- **StAY**: beats/divisions do not change after modulation

- **FLIP**: beats and divisions swap after modulation

These are extremely important musically.

SynC

Best when you want the whole patch to feel like it has cleanly landed in the new tempo.
Good for: - melodic sections - obvious transitions - “now this is the new pulse”

StAY

Best when you want the exact same pattern relationships to remain, but the whole module perceptually speeds up or slows down.
Good for: - generative melodic systems - gradual surreal tempo migration

FLIP

Best for dramatic melodic reinterpretation.
Good for: - swapping foreground and background rhythms - making accompaniment become lead timing - mirrored call/response behavior

For melodic patching, **FLIP** is particularly inspiring when Beat and Divide clock two different voices.

Performance ideas

1. Phrase-aware live modulation

- Use latch-to-downbeat
- Queue modulation before the end of a bar
- Send EoM to transpose your melody

This creates very “composed” live changes.

2. Manual polyrhythm scanning

- Leave melody patch constant
- Only change beat/divide
- Keep latches on

The same notes will feel different because the attack timing changes.

3. Truncate as ornament generator

- Main sequencer on Beat
- Ornament voice on Truncate
- Shared pitch source, different octave

This can produce beautiful melodic decoration from a single sequence.

Limitations to understand

Messed Up does **not** directly generate: - pitch CV - scales - quantized melodies - note order

So by itself it won't make melody. It makes **melody timing architecture**.

Think of it as controlling: - note onset - phrase boundary - rhythmic reinterpretation - formal transitions

If you combine it with: - a pitch sequencer - quantizer - random voltage - precision adder - switch - envelope/VCA voice

then it becomes a very powerful melodic composition tool.

Best companion module types

To create melodic components, pair Messed Up with:

- **Step sequencers** — for note order
- **Quantizers** — for tonal control
- **Sample & hold / random CV** — for generative melody
- **Sequential switches** — for phrase variation
- **Precision adders** — for transposition
- **Logic modules** — to combine Beat/Divide/Truncate into more melodic trigger patterns
- **Clocked switches / burst modules** — for ornamentation
- **Envelope generators + VCAs** — to turn pulse structures into articulated notes

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Bottom line

CuteLab **Messed Up** is best understood as a **melodic timing composer** rather than a melody source.

It excels at:

- clocking melodic sequencers with polyrhythmic structure
- resetting phrases with downbeats
- creating syncopated note triggers with truncate
- marking formal changes with EoM
- transforming the perceived pulse through metric modulation
- producing live-playable tension/release with Round Trip mode
- pushing melodies into evolving temporal space with One Way mode

If you already have modules that generate pitch, Messed Up can make them feel much more musical, structural, and performable.
