TAKAAB — Odd Clock Divider

-

Using the Takaab OCD Odd Clock Divider for Complex Percussion and Polyrhythms

The **Takaab OCD** is not a sound/voice or effect module but a **2HP clock divider** specializing in odd and less common rhythmic divisions. As a rhythmic utility, it is a powerful tool for generating intricate, interlocking patterns required in advanced percussion programming and modular polyrhythmic sequencing.

How to Use the OCD For Dense and Complex Rhythms

1. Generating Diverse Clock Streams (Odd Divisions)

- The OCD outputs simultaneous gate pulses from a single clock input at:
- **/3**
- **/5**
- **/7**
- **/9** (can be changed to **/6** via jumper)
- **/10**
  Each output provides a mathematically related rhythmic

subdivision that does not conform to typical duple/quad patterns, making every stream "offset" and polyrhythmic.

2. Synchronizing Unrelated Patterns

- Patch different outputs to trigger various percussion modules—each one gets its own unique, cycling rhythm, often lining up only after several cycles (true polyrhythm).
- Example:
  - /3 → Kick
  - /5 → Snare
  - /7 → Hihat
  - /9 → Perc
  - /10 → Clap

3. Complex Time Signatures

- Mix odd dividers (/5, /7, /9) with even dividers (use Takaab ECD for /2, /4, /6, /8, etc.) to build patterns in time signatures uncommon in typical Western music (e.g., 5/8, 7/8, 9/16, etc.).
- Chain/ping sequencers and algorithmic generators (like Euclidean or logic modules) with OCD outputs to create time signatures that morph and phase over time.

4. Rhythmic Accents and Reset Function

- Use the **RESET input or button**:
- Send manual/automated triggers (from a master clock, LFO, or any musical event) to RESET to realign all patterns, creating cycles of tension/release and evolving rhythmic frameworks.
- Resets serve as metric "glue" for live performances and improvisational structure.

5. Duty Cycle Shaping

- All outputs have a 50% duty cycle (1:1 high:low, rounded to nearest input pulse), but ratios vary slightly with odd-number divisions (e.g., 1/3 = 1:3, 1/7 = 3:4):
- These unconventional gate lengths create nonstandard envelope shapes if patched directly to percussive voices with voltage-controlled elements (VCAs, LPGs, sample/holds).

6. Patch Tips for Hyper-Complex Percussion

- **Layering Clocks:** Use multiple OCD units normalizing RESET/CLOCK inputs to keep many polyrhythmic divisions tightly phase-locked but out of conventional sync (using the included 2-pin Dupont jumpers).
- **Logic Modules:** Combine different OCD outputs via OR, XOR, AND, or sequential switch modules to create new, emergent rhythms and nested tuplets not available from a single divider.
- **Step Sequencer Modulation:** Clock step sequencers or trigger selectors with OCD outs for constantly shifting step patterns, shuffling through different percussion samples, or changing modulation destinations to build evolving polyrhythms.

Example Patch Concepts

- **Polyrhythmic Percussion Engine:**
  Clock input = 120 BPM master clock.
  OCD /3 out → kick drum trigger
  OCD /5 out → snare trigger
  OCD /7 out → hi-hat envelope
  OCD /9 out → random sample drum sound
  OCD /10 out → fill/FX percussion

- **Polytemporal Sequencing:**
  Patch clocked sequencers or random voltage sources with various OCD outs to melody and modulation destinations for metric modulation of both pitch and percussive voices.

- **Rhythmic Reset FX:**
  Automate the RESET (with a random generator, slow LFO, or hand-button) for "rhythmic jump-cuts," re-aligning complex layers on-the-fly.

Bonus: Modulate Odd Divisions

- **Jumper to switch 1/9 to 1/6:**
  Patch with the Takaab UXS or use the jumper on the board to shift the behaviour of this output—consider this during a performance for sudden time signature/feel changes.

In Summary

While the OCD is not a sound source or effect by itself, **it is an advanced, compact utility** that, especially in combination with other sequencers, dividers, logic modules, and percussion voices, serves as the rhythmic backbone for modular setups that aim for density, complexity, and organic, ever-evolving pattern generation. It excels at **polyrhythmic sequencing**, **complex time signatures**, and **rhythmic modulations**—all hallmarks of cutting-edge modular percussion.

Generated With Eurorack Processor