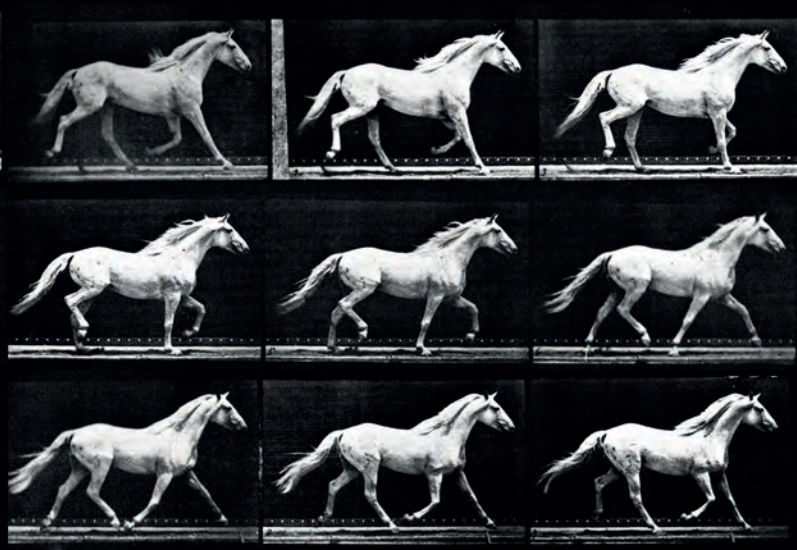


Shakmat White Gallop

- 8HP Eurorack Module
- Built & designed in Belgium
- www.shakmat.com

Introduction

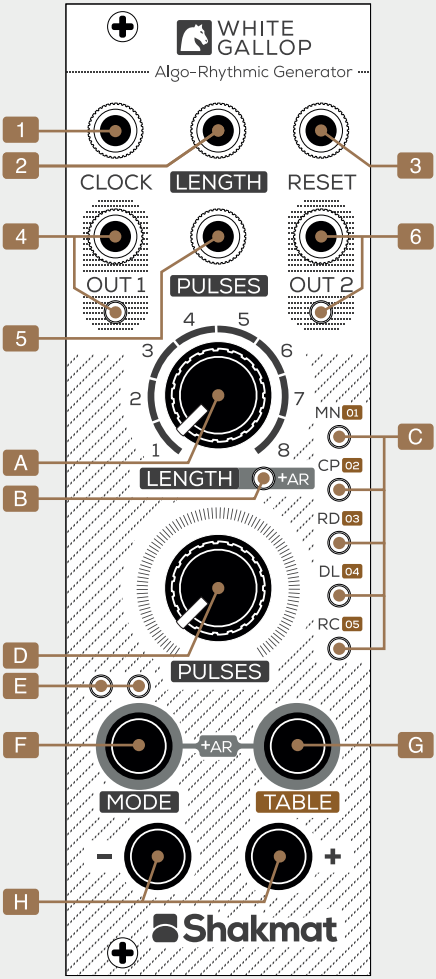
The White Gallop is the proud throttle companion of our dear Knight's Gallop. Less focused on the algorithmic side of rhythm generation, the White Gallop provides more assymetrical and unusual patterns. This limited edition also received a useful new weapon : the auto-reset function, which obviously resets the generated sequences after 8 or 16 steps. Just like the Knight's Gallop, this module is endowed with the same modes and sub modes allowing utility, computational and randomish treatment of the patterns. Of course, we also kept our beloved dual and record modes. Having the same workflow and delivering a totally different rhytmic feeling, the White Gallop is a perfect tool to quickly and intuitively provide astonishing polyrhythms.

1. Clock input
2. Length input
3. Reset input
4. Trigger output 1 & activity LED
5. Pulses input
6. Trigger output 2 & activity LED

A. Length potentiometer
B. Length +AR LED
C. Modes & Tables LED’s
D. Pulses potentiometer
E. Sub modes LED’s
F. Mode button
G. Table button
H. +/- Shift buttons

Installation

The White Gallop requires a standard 2x5 pin eurorack power cable. Make sure the red stripe on the cable matches the -12V side of the White Gallop power header.


WHITE GALLOP
Algo-Rhythmic Generator
1
2
3
CLOCK
LENGTH
RESET
4
6
OUT 1
PULSES
OUT 2
5
4
5
3
6
2
7
1
8
A
B
LENGTH
+AR
MN 01
C
CP 02
RD 03
DL 04
RC 05
D
PULSES
E
F
+AR
G
MODE
TABLE
−
+
H
Shakmat

Basics

First of all, the module needs to be fed by a clock signal via its Clock input [1]. The sequence generated by Out 1 [4] is determined by four parameters : Table type [C], Length [A&2], Pulses [D&5] & Shift [H].

The Length potentiometer [1] & CV Input [2] adjust the sequence's length from 1 to 8 steps (extendable to 16). The Pulses potentiometer [D] & CV Input [5] set the number of hits in the sequence. Turned fully counter clockwise it mutes the outputs and as the potentiometer is turned, the number of hits distributed across the sequence increases.

Shifting of the sequence can be done with the -/+ Shift buttons [H]. Press + once to shift the sequence one step forward and – to shift it backward. The module also has a Reset input [3], allowing to restart the sequence at its first step.

Tables

The module contains 5 tables with different feelings. To know which table is used, press the Table button [G]. The Mode & Table LEDs [C] indicate the selected table number by blinking. To navigate through the tables, keep the Table button [G] pressed and use the +/- Shift buttons [H].

01 As straight as possible

Quite similar as the Knight's Gallop first table. Straight and military !

02 Length minus pulses

Based on the inter pulse distance “Lenght minus pulses” this algorithm gives interesting non euclidean patterns while keeping a certain symmetry.

03 Accelerando

What if the Fibonnacci suite is applied to rhythms and used in a quantised timing context ? Musically speaking the algorithm leads to quite assymetrical patterns concentrating the pulses at the end of the sequence.

04 Deccelerando

Same principle is applied, leading to patterns concentrating the hits at the beginning of the sequence.

05 Fill next

This algorithm simply fills the pattern steps after steps starting from the beginning.

Modes & Sub modes

Out 2 [6] generates patterns based on Out 1 [4] but modified by an algorithm determined by the selected Mode & Sub mode.

To navigate through Modes press the Mode [F] & +/- Shift buttons [H]. The Mode LEDs [C] show the current mode.

Each mode contains several Sub modes, to navigate through them, press the Mode button [F]. The Sub mode LEDs [E] show the current Sub mode.

MN Main

The Main mode contains four utility Sub modes.
Note that the sequence played by Out 2 is automatically reset by the sequence played by Out 1.

Reset

Out 2 gives a pulse at every first step of the sequence.

No Shift

Out 2 is identical to Out 1but unaffected by the shift value.

Invert

Out 2 is an inversion of Out 1, delivering a pulse when Out 1 doesn't & silent when Out 1 plays.

Backward

Out 2 is identical to Out 1 but read backward.

CP Compute

As Out 1 is generating a "L" long sequence with "P" pulses in it, Out 2 provides another sequence withdrawn from the same table but with different length and pulse density.

P/2

Out 2 is reading Out 1's sequence with half the pulses but the same length (if Out 1 L=11 & P=4 ▸ Out 2 L=11 & P=2).

L/2 & P/2

Out 2 is reading Out 1's sequence with half the pulses and half the length (if Out 1 L=13 & P=4 ▸ Out 2 L=7 & P=2).

2L/3 & 2P/3

Out 2 is reading Out 1's sequence with pulses and length multiplied by 2 & divided by 3 (if Out 1 L=12 & P=9 ▸ Out 2 L=11 & P=3).

L-P & P/2

Out 2 is reading Out 1's sequence with Length shortened by the Pulses value, and Pulses divided by two (if Out 1 L=16 & P=5 ▸ Out 2 L=11 & P=3).

RD Random

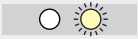
Adds randomness from auto-fill to probabilistic trigger generator.

No Random 

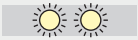
Out 2 & Out 1 are the same, there is no randomization.

Hard Fill 

Same principle as the Soft Fill but with a higher probability to read the associated L/2 & P/2 sequence.

Soft Fill 

Out 2 is identical to Out 1 but is randomly reading the L/2 & P/2 associated sequence.

Full Random 

Out 2 is playing a random sequence. The probability to get a hit at each step is controlled by the Pulses parameter value.

DL Dual

In this mode, Out 1 & Out 2 can be set independently, and CV inputs are disabled. To avoid value skips when switching between Sub modes, the potentiometers have to reach the previously set value to be effective.

Out 2 

Sets the second output.

Out 1 

Sets the first output.

RC Rec

This mode allows to record sequences with the + & - buttons. The Pulses potentiometer has a specific behavior, at zero it mutes the outputs, but turned fully clockwise it causes the outputs to roll (delivering a trigger at each step). You can control this behavior with the Pulses CV too.

Rec 

The pattern played on the - button is assigned to Out 1 & the one played on the + button to Out 2. Both sequences are quantized by the module.

Play 

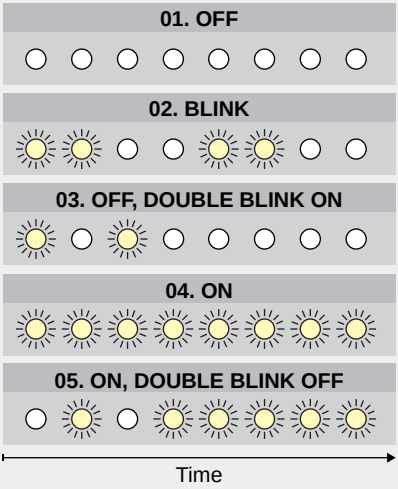
Recorded sequences are played.

Length+ & AR

Length+ and Auto-reset functions are activated by pressing the Mode [F] & Table buttons [G] together.

Lenght+ sets the range from 1-8 to 9-16 steps. The Auto-reset feature allows to automatically reset the generated sequences on both outputs.

There are five different Length+ / Auto-reset configurations, shown by the +AR Led [B] :



Specifications

Size
8 HP
Depth
27 mm
Current Draw
10 mA @ +12V
0 mA @ -12V
0 mA @ +5V

CV inputs
0 - 5V
Gate outputs
0 - 5V

● www.shakmat.com

Shakmat

Product design & engineering : François Gaspard
Product & brand design : Steve Hackx