



NEXTTUESDAY

Procedural Sequencer

manual

Procedural Sequencer

NextTuesday shapes melodies based on mathematical procedures better known as algorithms. We dove into music and came up with a number of ideas of how notes could be held in sequence. We now have 14 of them and a test pattern. The knobs and inputs give you hands-on control over various parameters, the dynamics of probability and timing. You design the sound while the melody continues.

Controls

1. TEMPO knob

Here you set the speed of the beats from which the tempo of the melody is derived. This tempo knob has two modes. If no external clock is connected then turning the knob controls the tempo from 20 up to 240 beats per minute. If an external clock is connected, then turning the knob controls the clock subdivision level, ranging from 1:6 on the left to 1:1 on the right.

2. ROOT input & knob

Transpose your melody. To the left scales down 2 octaves, to the right scales up 2 octaves.

3 & 4. X and Y inputs & knobs

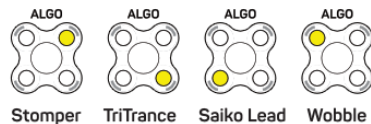
X and Y control the 2 main parameters of your selected algorithm. What these parameters do varies wildly per algorithm. Please read the Algorithms section to find out more.

5. ! input & knob

! Represents the probability of a note in the available melody actually being played. All the way to the left the probability is close to zero and all the way to the right the probability is almost a certainty.

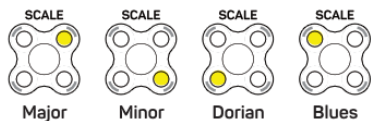
6. ALGO button and LEDs

Access four different algorithms at the touch of a button. Pressing the ALGO button cycles you between four slots. We have selected four for you, but you can assign any other algorithm. Please read the Algorithms section to see how. Our selection:



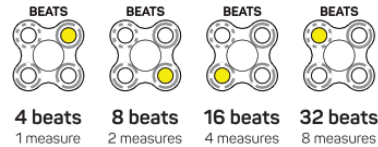
7. SCALE button and LEDs

Pressing the scale button cycles you between four different musical scale slots. We have selected four for you, but you can assign other scales. Please read the Scales section to assign other scales. Our selection:



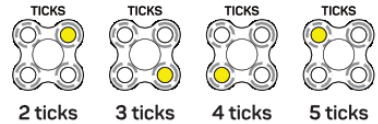
8. BEATS button and LEDs

Pressing the BEATS button cycles you between four different beats-per-loop options. NextTuesday can give you four, eight, sixteen or thirty-two beats per loop.



9. TICKS button and LEDs

Pressing the TICKS button cycles you between four different ticks-per-beat options. NextTuesday can give you two, three, four or five ticks per beat.



10. CLOCK input

The tempo of NextTuesday will synchronize to any clock signal you input here. When you do this, the TEMPO knob becomes a subdivider. You can turn the TEMPO knob all the way to the right for undivided clocks.

11. RESET input

You can catch a gate signal into this input to rewind the melody to the beginning of its loop. Please refer to Clock Settings to change reset behaviour.

12 to 19. OUTPUTS

The CLOCK OUT, TICK, BEAT and LOOP outputs send triggers. The NOTE and MOD outputs are analog CV. They provide you with note and modulation curves to control your oscillators and other parameters in your patch. The GATE and ACCENT outputs send pulses to your connected envelopes for every note that NextTuesday plays.

CV inputs

ROOT, X, Y and ! have CV inputs. You can use these to alter their values by external means. The incoming CV is always added to the position of the knob.



CARPE TUESDAY

Tuesday the procedural sequencer was our very first TINRS module. Now we bring you our next Tuesday. NextTuesday is still creating melodies based on several algorithms and your input. We extended this Tuesday with a ROOT knob, we added more algorithms and we changed the LEDs.

Installing the module

- Power down your system
- The red stripe on the power cable indicates -12V
- Connect the power cable with the red stripe to the red or -12V indication on the powerstrip
- Screw the module into place
- Power up your system

Plug & Play

- Connect NOTE to the 1V/oct input of any oscillator
- Connect GATE to the trigger/gate input of an envelope that is controlling the volume of the oscillator
- Adjust the TEMPO knob to your liking
- You should now hear your first NextTuesday melodies

Things to try

Rhythmic LFO

You can use the CLOCK IN to sync NextTuesday to an external sync and use the MOD and NOTE outputs as a rhythmic LFO to control interesting accents in your patch.

Drums

You can use the BEAT, TICK and LOOP outputs together with the ACCENT and GATE as a rudimentary drum pattern generator.

Arpeggio

Use a midi-to-cv module with a summer (like the Ardabil) and the NextTuesday NOTE output to create an arpeggiator. Connect the gate from the midi-to-cv to the RESET input for full effect.

Songs

Sequence the modulation inputs to create longer song structures.

Always Tuesday

With two (Next)Tuesdays you can use a slower Tuesday to provide a root note, and a faster Tuesday to play melodies on top.

Slower than that

Make long soundscapes by turning the tempo to the left.

Clock Divider

When using CLOCK IN, NextTuesday's CLOCK OUT/TICK/BEAT & LOOP outputs act as clock dividers.

More MOD

The MOD output follows the same scales as the NOTE output so connecting a second oscillator to the MOD output might be interesting.

Factory Reset

Hold down the BEATS button while powering up your system. All the options for scales, algorithms, ticks and beats will reset to our selection.

Let us know

Please check out our website for more information, demo videos and various links. You can also get in touch with us here for any questions or feedback and share your beepings. www.thisisnotrocketscience.nl

Credits

Design and programming by Stijn Haring-Kuipers
Operations by Priscilla Haring-Kuipers
Compute by Raspberry Pi (UK)
PCB by JLC-PCB (CHINA)
SMD assembly by Quant (NL)
Frontpanel by Repos (NL)
Light pipes by Lux Violet (NL)
Printing by De Regenboog Groep (NL)
Package silkscreening at AGALab (NL)
Sanity checks and emotional support by our friends on the TINRS and Plinky discord channels - thank you!

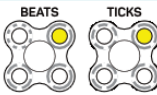
All TINRS products are proudly assembled at our antistatic kitchen table in Amsterdam, The Netherlands.

Algorithms

Your NextTuesday comes with four algorithms selected. You can select another algorithm into any of the four slots. Start by pressing the ALGO button until you have selected the LED for the slot you want. Now hold down the ALGO button until your selected LED starts blinking. Then release the ALGO button and use the BEATS and TICKS buttons to select a new algorithm by matching it to the LED patterns below. While the ALGO LED is still blinking, you can also select an output mode. When you are happy with your new selection, hold down the ALGO button again until your LED stops blinking. You have now successfully filled a slot.

Test Pattern

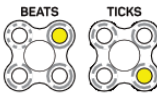
- X Full scale or octaves only
- Y Accent or no accent



The test pattern provides a range of melodies suitable for calibration of your oscillators. The Y knob also cycles through all the possible velocity levels.

TriTrance

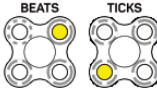
- X High note melody
- Y Bass melody



This algorithm builds patterns based on the tendency of classic trance and deep-house to create melodies from the juxtaposition of three tick riffs against a four tick beat. Rolling bass is interleaved with slow moving high notes.

Stomper

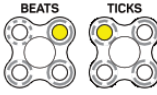
- X Rhythm and melody outline
- Y slide, accent and octaves



This algorithm derives its name from the floor shaking bass anthems of the acid house era.

Mr. Markov

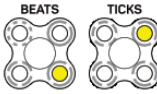
- X Butterfly control
- Y Weather susceptibility



Probabilistic matrix walker.

Wobble

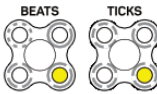
- X Shape morph and rhythm
- Y High note LFO interference



The wobble algorithm uses a combination of internal LFOs to walk the notes on the scale. The LFOs are subtly out of sync to create more interesting patterns.

Chip Arp 1

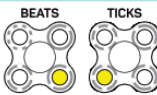
- X Press N to go North
- Y Grue control



Retro gaming galore. This algorithm creates fast switching chord progression arpeggios.

Chip Arp 2

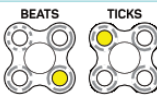
- X Arpeggio length
- Y Chaos control



Even more retro gaming. More chaotic than Chip Arp 1.

Sample and Hold on

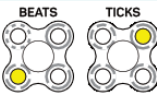
- X Laziness
- Y Panic



Had a plan - sampled the wobble periodically - executed lazily.

Saiko Classic

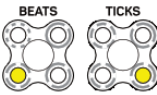
- X East to west
- Y North to south



A faithful reimagination of Arguru's classic Saiko melody generator. With this algorithm, pushing the SCALE button does not control musical scale. Instead, the four options allow you to switch between four variants of the algorithm.

Saiko Lead

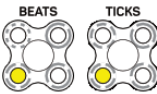
- X Far east to far west
- Y Deep north to deep south



Modern version of Saiko Classic. This time, the scale selection does control musical scale.

Scale Walker

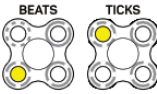
- X Length of the walk
- Y Start of the walk



What goes up must come down... and go up again and down again. This algorithm creates an upwards melody that drops and goes back up again.

Too Easy

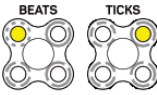
- X Permutate
- Y Variate



Offbeat, onbeat, full on and gallops. No worries.

Random

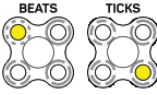
- X Horizontal seed injection
- Y Vertical seed injection



This algorithm is straight up random.

Lover

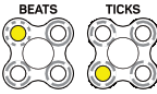
- X She loves me not
- Y She loves me



Who doesn't love some slidy basslines.

The Beet

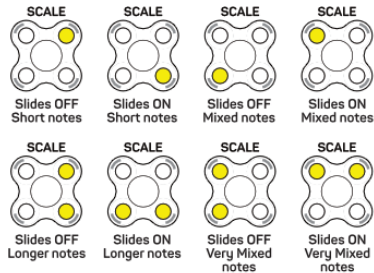
- X Apart or together
- Y Tonal difference



Based on the most iconic four-note-sequence of all time.

Algorithm Output

While changing algorithms you can also change the output mode as long as the selected ALGO LED is still blinking. The lit LEDs next to the SCALE button set the output mode for note length and note slides. Select one of eight options by pressing the SCALE button:



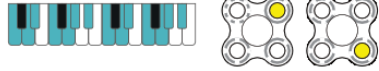
Scales

Your NextTuesday comes with four musical scales selected. You can select another scale into any of the four slots. Start by pressing the SCALE button until you have selected the LED for the slot you want. Now hold down the SCALE button until your selected LED starts blinking. Then release the SCALE button and use the BEATS and TICKS buttons to select a new scale by matching it to the LED patterns below. When you are happy with your new selection, hold down the SCALE button again until your LED stops blinking. You have now successfully filled a slot.

Major



Minor



Dorian



Blues



PentaTonic



Chromatic



Major Triad



Minor Triad

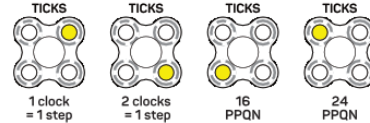


Clock Settings

To change the clock settings, press down the TICKS button and hold down until all four BEATS LEDs light up. You are now in Clock Settings mode. When you like your new settings, press the BEATS button. Three of the four BEATS LEDs will fade out and your NextTuesday will resume normal operation with the new settings.

Clock Stepping Speed (PPQN)

While in Clock Settings mode you can select one of four options for your clock stepping speed. Press the TICKS button to light up the LED corresponding to your selection:



Clock and Reset Behaviour

While in Clock Settings mode you can also select one of eight options for your clock and reset behaviour. Three of the ALGO LEDs correspond with three aspects:

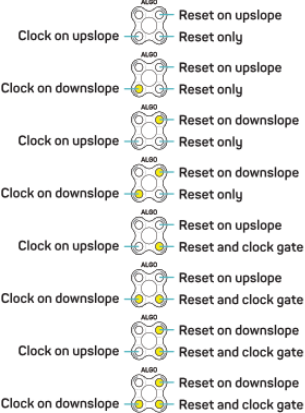


Clock and Reset Polarity both deal with the choice between responding to the upslope or the downslope of a signal. If you want NextTuesday to respond to the start of a pulse, use the upslope. If you want NextTuesday to respond to the end of a pulse, use the downslope. When clocking NextTuesday with gates, please keep in mind that gates have length and time passes between the upslope and downslope.



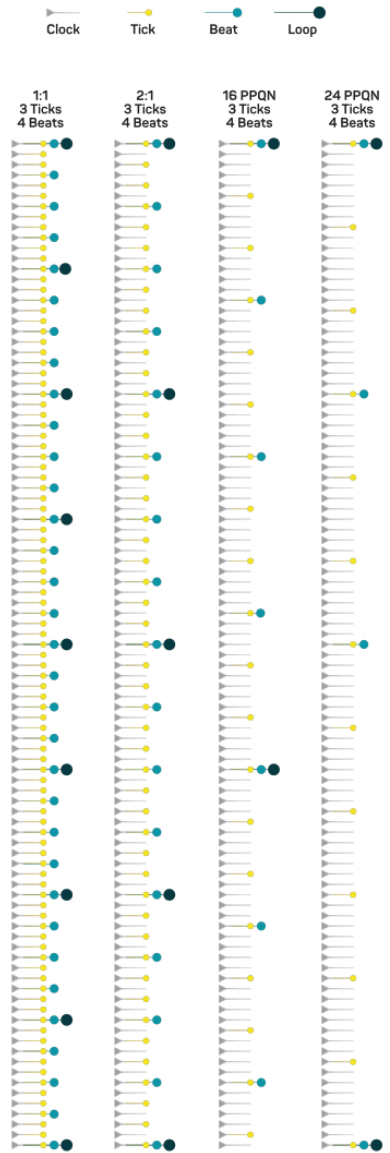
The RESET input can also function as a gate for the clock, meaning NextTuesday will stop playing as long as a gate signal is given.

Press the ALGO button to light up the LEDs corresponding to your selection:



More on clocking

This diagram illustrates the interaction between the stepping speeds, the incoming clockpulses and the resulting outputs. The TICK, BEAT and LOOP dots correspond to the blinking LEDs next to the outputs. The CLOCK dots corresponds to the clock pulses you send into the NextTuesday CLOCK IN.



1:1 and 1:2 stepping speed
The length of the ticks is proportional to the time between the clock pulses. Beats and loops are derived by subdividing these ticks.

24ppqn and 16ppqn stepping speed
The length of the beats is proportional to the time of the clock pulses. Ticks and loops are derived by dividing and interpolating the beats.