TiNRS Tuesday

Manual

TANRS Tuesday

CLOCK TEMPO RESET CLK OUT

ALGO TICKS TICK

SCALE BEATS BEAT

LOOP

X

Y VEL ACC

! NOTE GATE
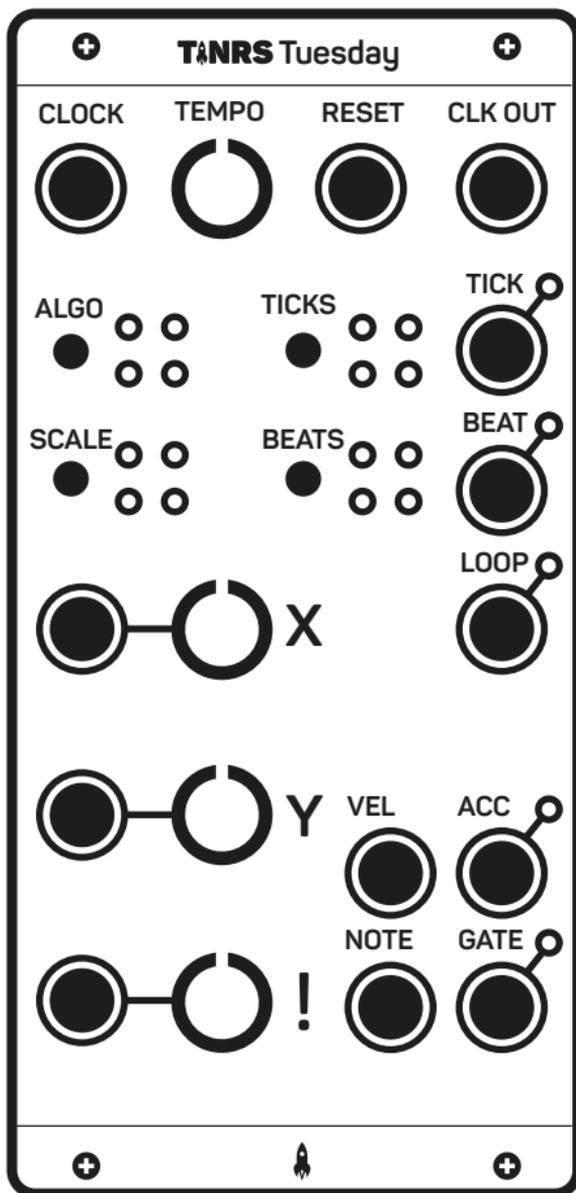
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Overview

Hi there! Thank you for buying Tuesday, our procedural sequencer Eurorack module. We hope this module brings you boundless enjoyment, general increased happiness and never ending productivity.

Tuesday contains 12 different algorithms that generate melodies. The parameters of the algorithms can be tweaked by turning the **X**, **Y** and **!** knobs or patching your cables in. You can change the timing and the tonality of the melody by pushing buttons.

CARPE TUESDAY!

Specifications

Type	Procedural Sequencer
Width	12HP
Depth	20mm (skiff friendly)
Power usage + 12v	80mA
Power usage -12V	2mA

Controls

Tempo Knob

The **tempo** knob has two modes. If no external clock is connected (no cable in the **clock** jack) then turning the knob controls the master tempo from 20 up to 240 beats per minute. If an external clock is connected via a patch cable into **clock** jack, then turning the knob controls the clock subdivision level.

X and Y Knobs

The **X** and **Y** knob control two main parameters for your selected algorithm. The function of these two knobs varies per algorithm. Please read the Algorithms section to find out more.

! Knob

The **!** knob controls the density of the melody. When turned all the way to the left, barely any notes will be generated. When turned all the way to the right, almost all ticks will have a note.
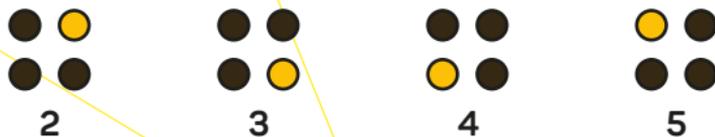
Algo Button and LEDs

Pressing the **algo** button cycles you between four different algorithm slots. The LEDs tell you which slot is currently being used. Tuesday comes with Stomp, TriTrance, Saiko Lead and Wobble as factory defaults. Please read the Algorithm section to assign other algorithms to these four slots.

Defaults slot assignments:

Stomper **TriTrance** **Saiko Lead** **Wobble**

Ticks Button and LEDs

Pressing the **ticks** button cycles you between four different ticks-per-beat options. The LEDs tell you which option is currently being used. Tuesday can give you two, three, four or five ticks per beat.

2   **3**   **4**   **5**

Beats Button and LEDs

Pressing the **beats** button cycles you between four different beats-per-loop options. The LEDs tell you which option is currently being used. Tuesday can give you four, eight, sixteen or thirty-two beats per loop.

4   **8**   **16**   **32**

Scale Button and LEDs

Pressing the **scale** button cycles you between four different musical scale slots. The LEDs tell you which one is currently being used. Tuesday comes with Major, Minor, Dorian and Blues scales as factory defaults. Please read the Scales section to assign other scales to these four slots and for more information about the difference between them.

Defaults slot assignments:

Major   **Minor**   **Dorian**   **Blues**

Input Jacks

Clock

By patching a cable into the **clock** jack, the tempo of the melody synchronizes to any external time source you give it.

Reset

Patch a trigger signal into the **reset** jack. Every trigger rewinds the melody to the beginning of its loop.

X, Y and !

Patch a signal here to automate the matching knob, modulating your parameter. Your modulation inputs are summed together with the value of the matching knob. If you leave the knob in the center position, you can span the full range of the parameter by external modulation.

Output Jacks

The **clk out** (clock out), **tick**, **beat** and **loop** outputs send triggers according to their settings.
The **note** and **vel** (velocity) jacks are analog CV outputs. They provide you with note and velocity curves to control your oscillators.
The **gate** and **acc** (accent) outputs send pulses to your connected envelopes for every note that Tuesday wants to play.

Getting Started

Installing the module

1) Power down your Eurorack system.
2) Connect the included power cable between your Eurorack power rail and the back of the Tuesday module. Make sure the power cable is connected with the RED STRIPE to the MINUS 12V RAIL.
3) Secure your Tuesday module to the rack using the included screws. If you want to use your own, use size M3 or smaller. You can use the provided washers to prevent rack rash.
4) Power up your Eurorack system.

Connecting your first patch

1) Connect the **note** output to the 1V/oct input of your favourite oscillator.
2) Connect the **gate** output to the trigger/gate input of an envelope that is controlling the volume of the oscillator.
3) Adjust the **tempo** knob to your liking.
4) You should now hear your first Tuesday melodies.
5) Go wild with the buttons and the knobs!

Algorithms

Assign a new algorithm to any of the four slots by pressing down the **algo** button when you have selected the LED for the slot you want. Hold the **algo** button until the selected LED starts blinking, then release the **algo** button and use the **ticks** and **beats** 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 (see Algorithm Output Variations below). Once you are happy with your new selections, press and hold the **algo** button again until the LED stops blinking. You have now successfully filled a slot.

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   Varies the selected notes

Slides, accents and octave shifts. This algorithm derives its name from the floor shaking bass anthems of the acid house era.

Mr. Markov

 X   Butterfly control

 Y   Weather susceptibility

Probablistic 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

Ticks

Beats

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

Chip Arp 2

🟡 **X**   Arpeggio length

🟡 **Y**   Chaos control

Ticks

Beats

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

Sample and Hold on

🟡 **X**   Laziness

🟡 **Y**   Panic

Ticks

Beats

Create a plan - sample it periodically - execute it lazily.

Saiko Classic

🎛 **X**   East to west

🎛 **Y**   North to south

Ticks

Beats

A faithful reimagination of Arguru's classic Saiko melody generator. In this algorithm, your scale selection does not control musical scale. Instead, the four scale 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

Ticks

Beats

Modernized version of Arguru's Saiko melody generator. In this version of the algorithm, the scale selection does control musical scale.

Scale Walker

🎛 **X**   Length of the walk

🎛 **Y**   Start of the walk

Ticks

Beats

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. This algorithm has no worries, too easy! Take control of the **!** knob to go from once-a-beat to all-the-ticks.

Random

X Horizontal seed injection

Y Vertical seed injection

This algorithm is straight up random.

Test Pattern

X Left: full scale Right: octaves only

Y Left: accent Right: 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.

Algorithm Output Variations

While the **algo** LED is still blinking, you can also change your output mode. The lit LED next to the **scale** button determines your output mode for note length and note slides. Select one of four options by pressing the **scale** button:

Slides off Short notes	Slides on Short notes	Slides off Mixed notes	Slides on Mixed notes
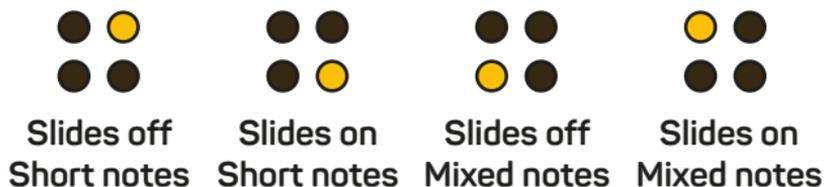
Scales

Assign a new scale to any of the four slots by pressing down the **scale** button when you have selected the LED for the slot you want. Hold the **scale** button until the selected LED starts blinking, then release the **scale** button and use the **ticks** and **beats** buttons to select a new scale by matching it to the LED patterns below. While the **scale** LED is still blinking, you can also select a transpose mode (see Scale Transpose Options below). Once you are happy with your new selections, press and hold the **scale** button again until the LED stops blinking. You have now successfully filled a slot.
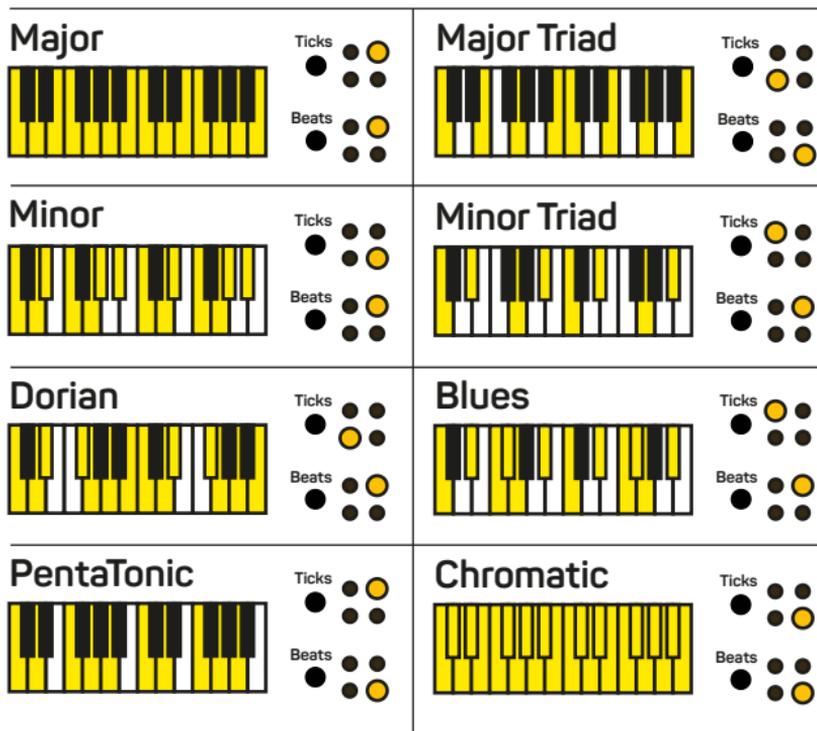
Scale Transpose Options

While the **scale** LED is still blinking, you can also change the transpose level. The lit LED next to the **algo** button determines your transpose level. Select one of four options by pressing the **algo** button:

0 semitones   5 semitones   7 semitones   12 semitones

System

Factory Reset

1) Power down your Eurorack system.
2) While holding down the **beats** button, power up your Eurorack system.
3) All the options for scales, algorithms, ticks and beats will have been reset to their factory defaults.

Recalibrating the Tuesday

The Tuesday leaves our care fully calibrated. Please only follow this procedure if the Test algorithm fails to produce the correct intervals for octaves.

1) Power down your Eurorack system.
2) Disconnect all the inputs and outputs of the Tuesday.
3) Connect an oscilloscope to the **vel** and **note** outputs.
4) While holding down the **scale** button, power up your Eurorack system.
5) Press the **ticks** button; this will enable calibration mode for the **note** output.
6) The **note** output will produce a pulse wave.
7) Turn the **X** knob to alter the low value until it sits at 1 volt.
8) Turn the **Y** knob to alter the high value until it sits at 3 volt.
9) Press and hold the **ticks** button for 2 seconds to store the calibration.
10) Press the **beats** button; this will enable calibration mode for the **vel** output.
11) Repeat the procedure above until the **vel** pulsewave also hits 1 and 3 volt exactly.
12) Press and hold the **beats** button for 2 seconds to store the

calibration.

13) Press the **algo** button to resume normal operation. The new calibration value has been written to the internal memory.

Updating system software

If we have new and updated algorithms or bug fixes you will find them on our website. Please download and follow the instructions provided inside the ZIP file containing your new and improved system software.

Want to do more?

Tuesday is an Open Source / Open Hardware project. You can find all the schematics, board designs and the full source code to the firmware and the related tools on our This Is Not Rocket Science Github page. Happy Hacking!
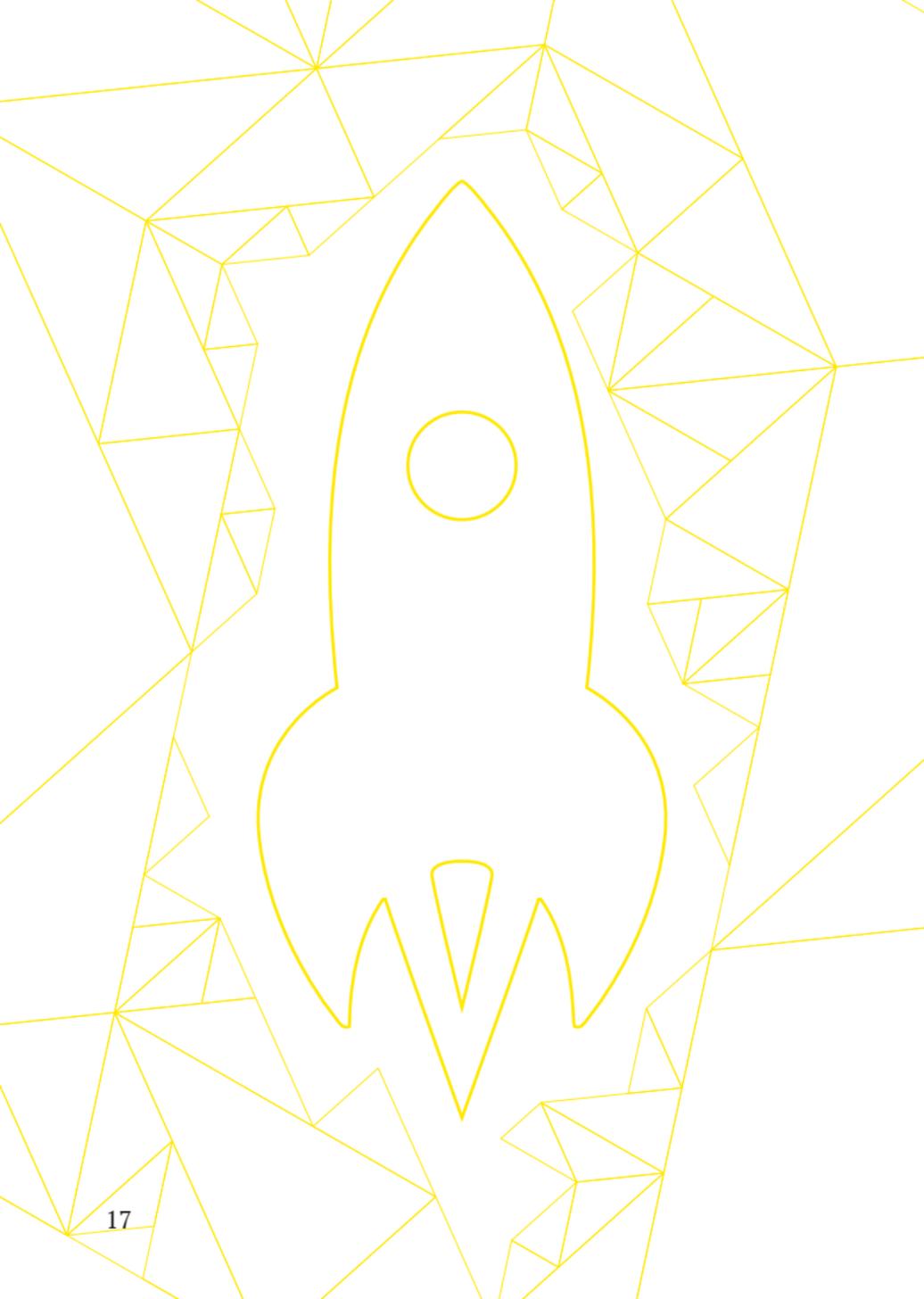
Credits

Design: Stijn Haring-Kuipers
Manufacturing support: Priscilla Haring-Kuipers
Graphic design: Sebastian Michailidis

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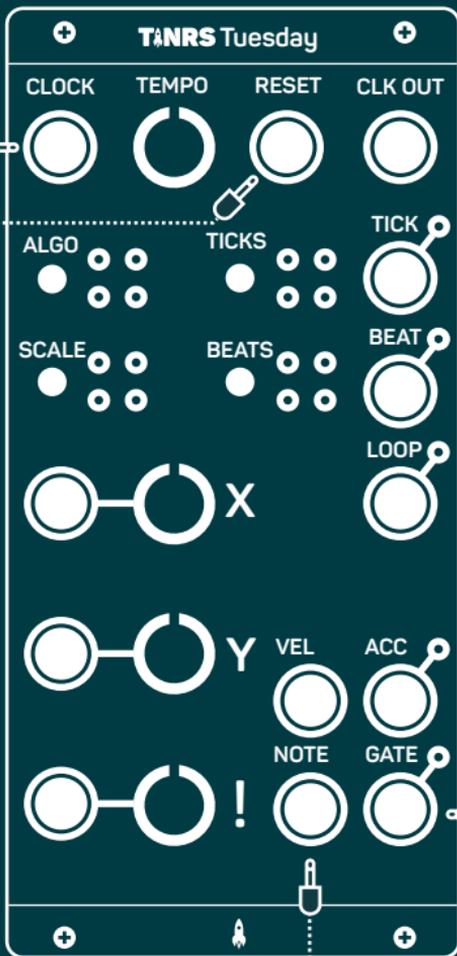for teaching me the magic property of thingness.

And last but not least:

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for convincing me into ever greater adventures and
assisting me all the way.

Plug & Play Guide

clock source

TINRS Tuesday

CLOCK   TEMPO   RESET   CLK OUT

TICK

ALGO   TICKS

SCALE   BEATS

BEAT

LOOP

X

Y   VEL   ACC

NOTE   GATE

!

envelope
gate

oscillator
1v/oct