MARS PEAKS

REVERB PLACEMENT

FX device by Turn2on Software

Welcome to Mars !

Mankind has always been drawn to the unknown. Sending Humans to Mars is close to becoming a reality, we are already exploring its surface and atmosphere. The geography of Mars is vast and complex, having mountain peaks, craters, and plains, called oceans.

This device allows you to simulate the environment of the planet, taking into account its wind, atmosphere, and surface relief. It also lets you simulate the movement of the research vehicle, Rover.

We invite you to plunge into the space of a lonely Mars, to feel the scale of an empty planet, and its reflection of sound vibrations in the atmosphere.

The device has several basic modules.

The study of landscape and atmosphere is carried out within the framework of the ATMOSPHERE module.
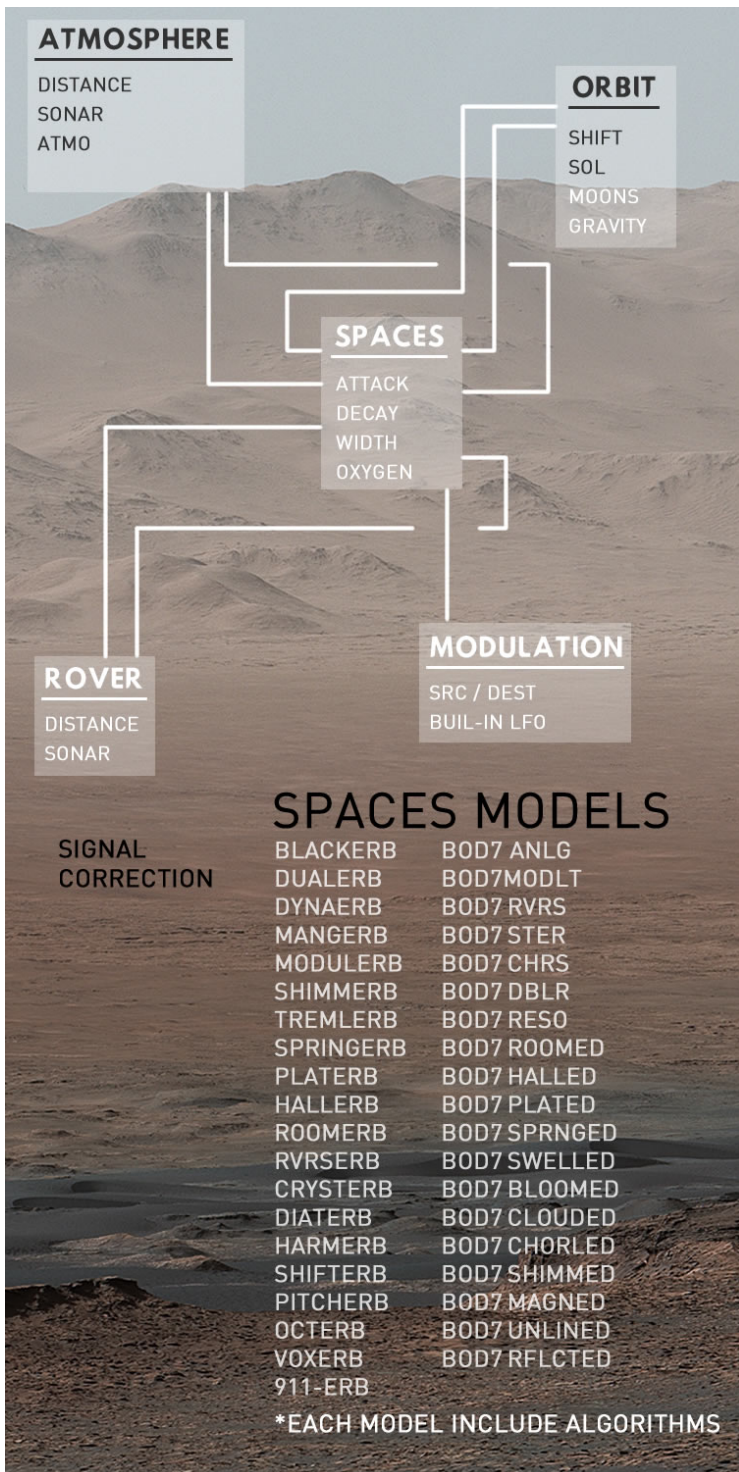
The Rover Explorer is managed in the ROVER module section.

The study of the orbit and the influence of its moons is carried out by using the ORBITAL module.

The study of the near planetary space of the planet, methods of oxygen saturation of the environment of the planet is carried out in the SPACES module.

ATMOSPHERE

DISTANCE
SONAR
ATMO

ORBIT

SHIFT
SOL
MOONS
GRAVITY

SPACES

ATTACK
DECAY
WIDTH
OXYGEN

MODULATION

SRC / DEST
BUIL-IN LFO

ROVER

DISTANCE
SONAR

SIGNAL
CORRECTION

SPACES MODELS

BLACKERB	BOD7 ANLG
DUALERB	BOD7MODLT
DYNAERB	BOD7 RVRS
MANGERB	BOD7 STER
MODULERB	BOD7 CHRS
SHIMMERB	BOD7 DBLR
TREMLERB	BOD7 RESO
SPRINGERB	BOD7 ROOMED
PLATERB	BOD7 HALLED
HALLERB	BOD7 PLATED
ROOMERB	BOD7 SPRNGED
RVRSERB	BOD7 SWELLED
CRYSTERB	BOD7 BLOOMED
DIATERB	BOD7 CLOUDED
HARMERB	BOD7 CHORLED
SHIFTERB	BOD7 SHIMMED
PITCHERB	BOD7 MAGNED
OCTERB	BOD7 UNLINED
VOXERB	BOD7 RFLCTED
911-ERB	

*EACH MODEL INCLUDE ALGORITHMS

BYPASS - disable effect
ON - enable effect
OFF - mute incoming signal

The structure of this FX device include 5 main modules:
- ATMOSPHERE
- ROVER
- ORBIT
- SPACES
- MODULATION

The ATMOSPHERE / ROVER / ORBIT modules have the option to be used as either Pre/Post or Sum with the SPACES module.
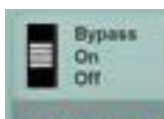
The SPACES module contains 39 models of real hardware, such as guitar pedals and other studio effects processors. Each model has its own algorithms. We have combined them together, in one section, to give this RE even more spatial manipulating capabilities.

Why do we call it RackExtension as reverb placement with a hybrid engine? Because there are several different ways to create reverbs in this RackExtension. You can perform morphing of different types of reverberation. You can also use CV inputs to control main parameters, use Automata-CV inputs for modulation, or use the built-in LFO with 8 waveforms. Re-patches is supported, so you can create and load your own patches.
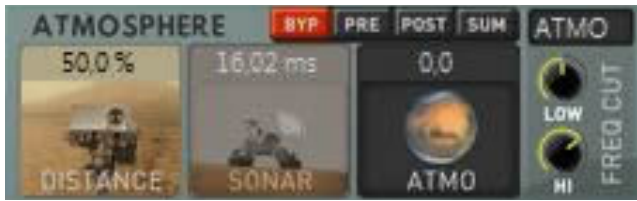
Some algorithms have a very long decay sound. Please remember, if you use a long decay at effect patches or algorithms - to save DSP/CPU, it is better to wait for the end of the sound. This will help to save resources.

We used algorithms from several well-known guitar pedals and processors.

Go through time and space!

ATMOSPHERE

ACTIVITY	BYPASS: module is bypassed PRE: module works as PRE for SPACES module POST: module works as POST for SPACES module SUM: module works as Sum of the PRE and POST for SPACES module
DISTANCE	Distance of rover from base / Length of reverb tail.
SONAR	Level of Rover signal / Delay of signal before reverb
ATMO	Oxygen avaliable in the atmosphere of the planet / Effect Mix
LOWCUT	Highpass filter Cutoff
HIGHCUT	Lowpass filter Cutoff

ROVER

ACTIVITY	BYPASS: module is bypassed PRE: module works as PRE for SPACES module POST: module works as POST for SPACES module SUM: module works as Sum of the PRE and POST for SPACES module
DISTANCE	Distance of the Rover from base / Length of non-linear reverb tail.
SONAR	Level of Rover signal / Delay of signal before reverb
ATMO	----
LOWCUT	Highpass filter Cutoff
HIGHCUT	Lowpass filter Cutoff

INPUT / OUTPUT

INPUT	Correction amp gain of the dry input level (unprocessed input signal) before it goes to the Ground/Space control
OUTPUT	Correction amp gain of the output level of the processed signal after it leaves the Ground/Space control

ORBIT

ACTIVITY	BYPASS: module is bypassed PRE: module work as a PRE for SPACES module POST: module work as a POST for SPACES module SUM: module work as a Sum of the PRE and POST for SPACES module
SOL	Days in Solar system, distance from Earth (in days)
MOONS	Mars has two Moons in orbit, Phobos and Deimos. Select a moon to discover its orbit trajectory.
GRAVITY	Level of gravitation. How moons affect Mars's gravitation
SHIFT ORBIT	Models how Mars would change if its moons orbits were changed

SPACES	
ACTIVITY	BYPASS: module is bypassed PRE: module works as a PRE for SPACES module POST: module works as the POST for SPACES module SUM: module works as a Sum of the PRE and POST for SPACES module
ATTACK	Speed of the rocket headed to Mars
DECAY	Acceleration of the discovering expedition rocket
WIDTH	How much fuel the engine uses
OXYGEN	Oxygen used for discovering expedition rocket

SPACES: space models and algorithms:

SPACE MODEL	ALGORITHMS
BOZZ BOD7	
ANALOG	Size: 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10
MODULATE	Size: 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10
REVERSE	Size: A / B / C
STEREO	Size: 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 (200 ms / 800 ms / 3200 ms)
CHORUS	Size: 1 / 2
DOUBLER	Size: 1 / 2 / 3
RESONANT	Size: 1 / 2 / 3 / 4 / 5 / 6

SPACE MODEL	ALGORITHMS
	BLACKSPACE MODELS
BLACKERB	HD / STAGE / DIGITAL GRAVITY: algorithms in range of -11.. 0 .. +13
DUALERB	ms: 1 / 2 / 5 / 10 / 15 / 20 / 25 / 30 / 35 / 40 / 400 / 600 / 800
DYNERB	ms: 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25 / 30 / 500
MANGERB	ms: 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 / 20 / 30
MODERB	ms: 1 / 3 / 5 / 6 / 7 / 8 / 9 / 10 / 12 / 15 / 20
SHIMERB	Size (%): 1 / 5 / 10 / 20 / 30 / 40 / 50 / 60 / 70 / 80 / 90 / 100
TREMERB	sec: 1 / 3 / 5 / 6 / 8 / 10 / 15 / 20 / 30
SPRINGERB	sec: 1 / 3 / 5 / 6 / 7 / 8 / 9 / 10 / 12 / 15
PLATERB	sec: 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10
HALLERB	sec: 1 / 2 / 4 / 6 / 8 / 9 / 10 / 15 / 20 / 25
ROOMERB	Size (%): 10 / 20 / 30 / 40 / 50 / 60 / 70 / 80
RVRSERB	sec: 1 / 2 / 3 / 4 / 5 / 50 / 150 / 250 / 500
CRYSTERB	sec: 0.1 / 0.3 / 0.5 / 0.7 / 0.9 / 1.1 / 1.3 / 1.5 / 1.7 / 1.9 / 2 / 3 / 5 / 7 / 9 / 10
DIATERB	sec: 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8/ 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16
HARMERB	Size: 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10
SHIFTERB	Size: 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10
PITCHERB	Size: 1 / 2 / 3 / 4 / 5
OCTERB	STATIC
VOXERB	Grid: 1/2, 1/4, 1/6dot, 1/6trip, 1/8trip, 1/32dot, 1/64, 1/64dot
911-ERB	Size: 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10

SPACE MODEL	ALGORITHMS
WIDE-SKY	
ROOMED	CLUB / STUDIO
HALLED	STATIC HALL
PLATED	LARGE / SMALL
SPRINGED	CLEANED / COMBOED / OVERDRIVED / TUBED
SWELLED	LONGER / SOLO
BLOOMED	LONGER / FASTER
CLOUDED	FASTER / LONGER
CHORALED	AAHH / AAHHOOH / AAHHOOO / OHH / OOOHOOH / OOO
SHIMMED	STATIC
MAGNED	FATSER / LONGER
UNLINED	BOUNCE (1s / 2s / 50ms / 250ms), GATED (1s, 2s, 250ms), GAUSS (1s, 2s, 50ms, 250ms), RAMPED (1s, 2s, 50ms, 250ms), REVERSE (1s, 2s, 50ms, 250ms), SWOOSHED (1s, 2s, 50ms)
REFLECTED	STATIC

GROUND/SPACE MIX

Mix of dry (GROUND) and wet (SPACE) signals. The WET signal is the processed signal of Atmosphere, Rover, Spaces, and Orbit.

MODULATION / LFO SECTION	
AMOUNT	Modulation level from LFO or other sources.
SRC	Select modulation source:
	CONSTANT: Source is only from the LFO section
	Automata A1 / A2 / A3: CV input sources from the Automata* section
DEST	Destination parameter selects what will be modulated by the effect:
	SPACES: WIDTH / ATTACK / DECAY / DRY signal / WET signal
LFO RATE	Adjust the LFO rate per step
LFO RANDOM	Randomize the scale steps
LFO WAVE	**LFO waveform**: SINE / TRIANGLE / SAWTOOTH / SQUARE / PULSE / TANGENT / RISE UP / TRAPEZOID
RATE AFFECT	Set how much the source value affects the LFO rate
DEPTH MOD	Set how much the source value affects the LFO depth

AUDIO INPUT/OUTPUT

Mono or Stereo connections for audio signals.

CV INPUTS

Use these CV inputs to control the main parameters by external CV source curves.

AUTOMATA

Use these CV inputs as modulation sources with or without an LFO. You can select A1/A2/A3 CV inputs in the modulation section on the front panel (Modulation section "SRC" parameter). Automata CV inputs can be used (one CV input at a time) via modulation source selection on the front panel (just switch A1/A2/A3 selection).

Thanks to all beta-testers,
special thanks to Kirk Markarian, Challis (RT forum user) and xcott (bes RT forum user), Leigh Christopher

MARSPEAKS
reverb placement

Turn2on

Rack Extension Developer

contacts: https://turn2on.com/
supp.turn2on@gmail.com