

TuneScope Music Block Help Files

The Music Blocks library extends Snap! through additional blocks designed to support creation of music in Snap! All the help files for the blocks are provided below.

I. TuneScope Setup

Set Instrument

This block selects a musical instrument.

Set Volume

This block sets the overall sound level.

Set Volume of Instrument

This block adjusts the sound level of a specific instrument.

II. Musical Notes

Play Note

This block plays a musical note. Several of these blocks can be combined to create a musical chord. A note name and duration (whole, half, quarter, etc.) can be selected from the drop-down menu.

Play Note and Wait

This block waits until one note is completed before beginning the next note. A note name and duration (whole, half, quarter, etc.) can be selected from the drop-down menu.

Rest

This block inserts a delay of a specified note duration in a sequence of notes.

Note

This block reports a list that consists of a specified note name and duration. These can be selected using the drop-down menu or entered directly.

III. Musical Scales

Scale

This block reports the notes in the specified scale. A scale type can be selected from the drop-down menu.

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Note Position in Scale

This block reports the note in the selected position of a scale. A scale type can be selected from the drop-down menu.

Interval Between Notes

This block reports the distance (in steps) between two notes in a scale. A scale type can be selected from the drop-down menu.

IV. Musical Chords

Play Chord

This block plays all notes in a list simultaneously for a set duration. The duration may be selected from a drop-down menu or entered directly.

Major/Minor Chord

This block reports the notes in a major or minor chord as a list. A scale type can be selected from the drop-down menu. The note and the octave should be entered directly.

Major/Minor Chord Position

This block finds the notes in a specified chord along the selected scale. Roman numerals differentiate chord positions from octave numbers (e.g., the Roman numeral “I” reports the notes of the first chord in the sequence). Upper case Roman numerals represent major chords within the scale. Lower case Roman numerals represent minor chords within the scale.

Add Note to Chord

This block reports a chord with an additional note appended.

Chord Rest

This block reports a rest for use with chords.

V. Musical Tracks

Measure

This block is used to group sequences of notes and chords into measures. Each note or chord in the measure is paired with a note duration. The pairs are entered into the block using a list.

Beats in Measure

This block determines if the combined durations of notes or chords within a measure are correct. The combined duration of notes within a measure must equal the number of beats specified by the time signature. For example, in 4/4 time, there can be four quarter notes within a measure. If the durations are not correct, the Beats in Measure will report the discrepancy.

Section

This code block groups measures together. This can be helpful for separating groups of measures that repeat in various places throughout a song, like verses and choruses. This block works with both notes and chords. To add measures to a section, put the measures into a list.

Track

This code block specifies the type of track to be played and assigns it an instrument. Both the track type and instrument are set using drop-down menus. This block accepts notes or chords paired with corresponding durations. This block also allows for the creation of note or chord loops that will repeat for the whole duration of the song. Both types of loops may be selected from the track drop-down menu. For a loop to play, it must have an accompanying track that is not a loop.

Play Tracks

This block is used to play multiple music tracks. In most cases, several tracks with musical instruments are played in parallel.

VI. Drum Tracks

Drum Pattern

This block reports a series of beats that tell the drum when to play. Beats are represented as an “X,” which can be typed into the block. Beats can be added or subtracted using the arrows on the right of the block.

Drum Loop

This block reports a drum pattern, assigns a drum to it, and sets the duration value of each item in the pattern. Different drums can be selected from the drop-down menu. Beat durations can be selected from the drop-down menu or entered directly.

VII. MIDI Tools

Play MIDI

This block captures notes played on a MIDI keyboard and plays them through the computer speakers. The name of the MIDI keyboard can be selected using the drop-down menu or entered directly.

Note to MIDI

This block reports the MIDI number that corresponds to the note name entered.

MIDI to Note

This block reports the note name that corresponds to the MIDI number entered.

VIII. Acoustic Tools

Tone

This block assigns a number, frequency, and amplitude to a tone.

Tone Number On/Off

This block turns the specified tone on or off. This block will play a sine wave.

Tone Off

This block turns off all the tones currently playing.