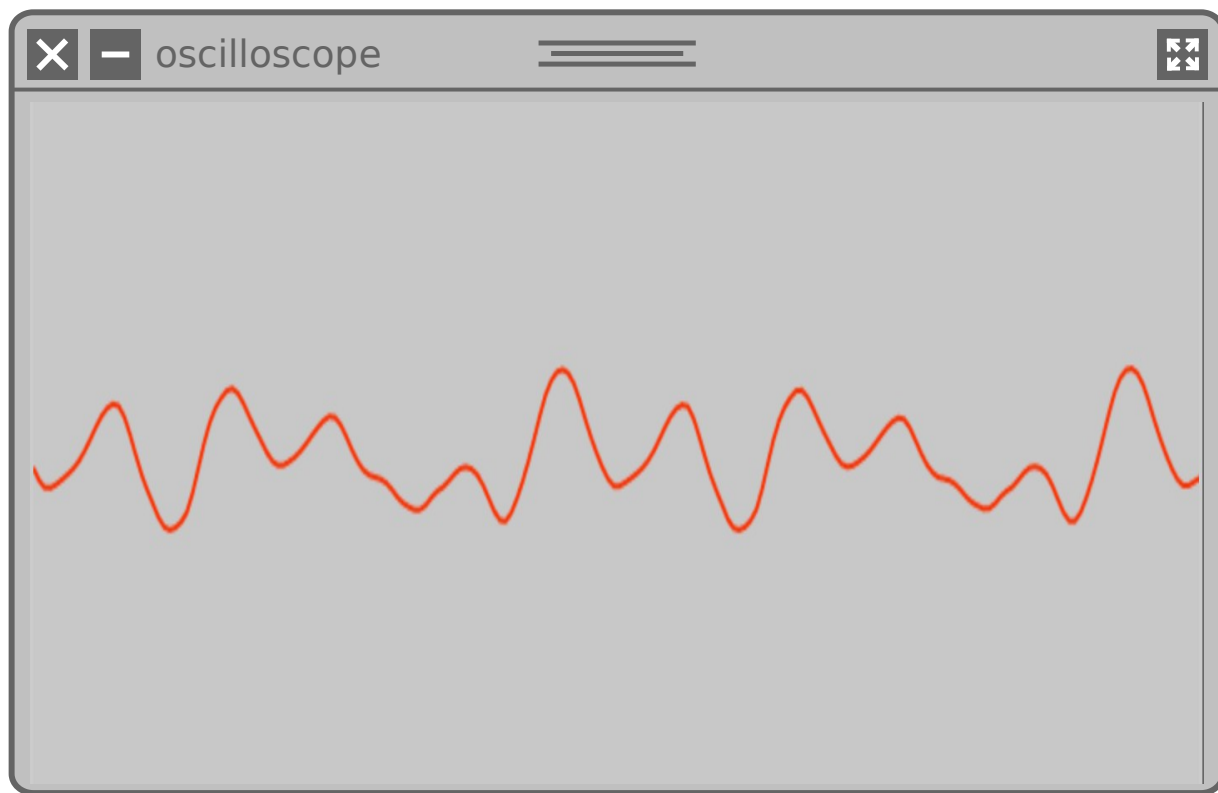
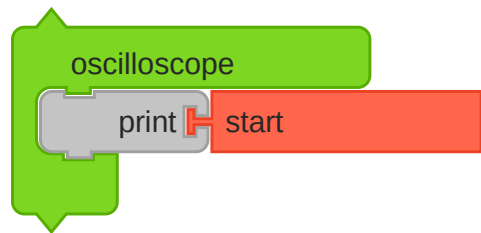


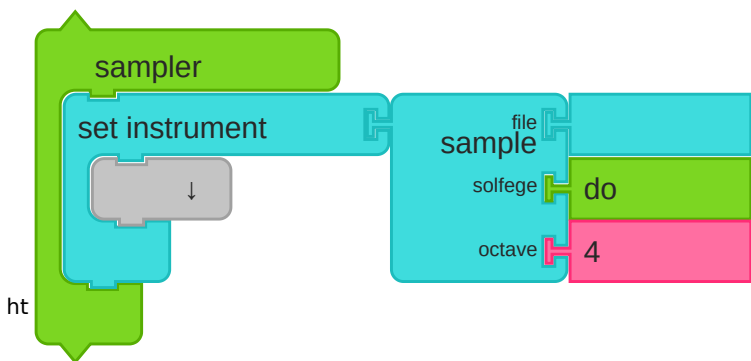
## 4.13 The Oscilloscope

Music Blocks has an Oscilloscope Widget to visualize the music as it plays.

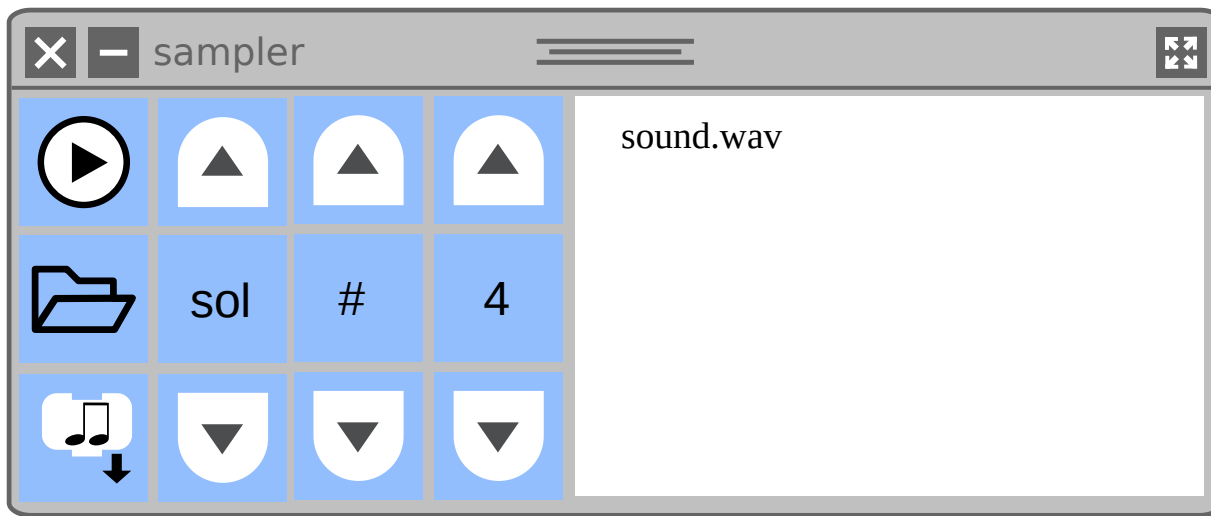


A separate wave will be displayed for each mouse.

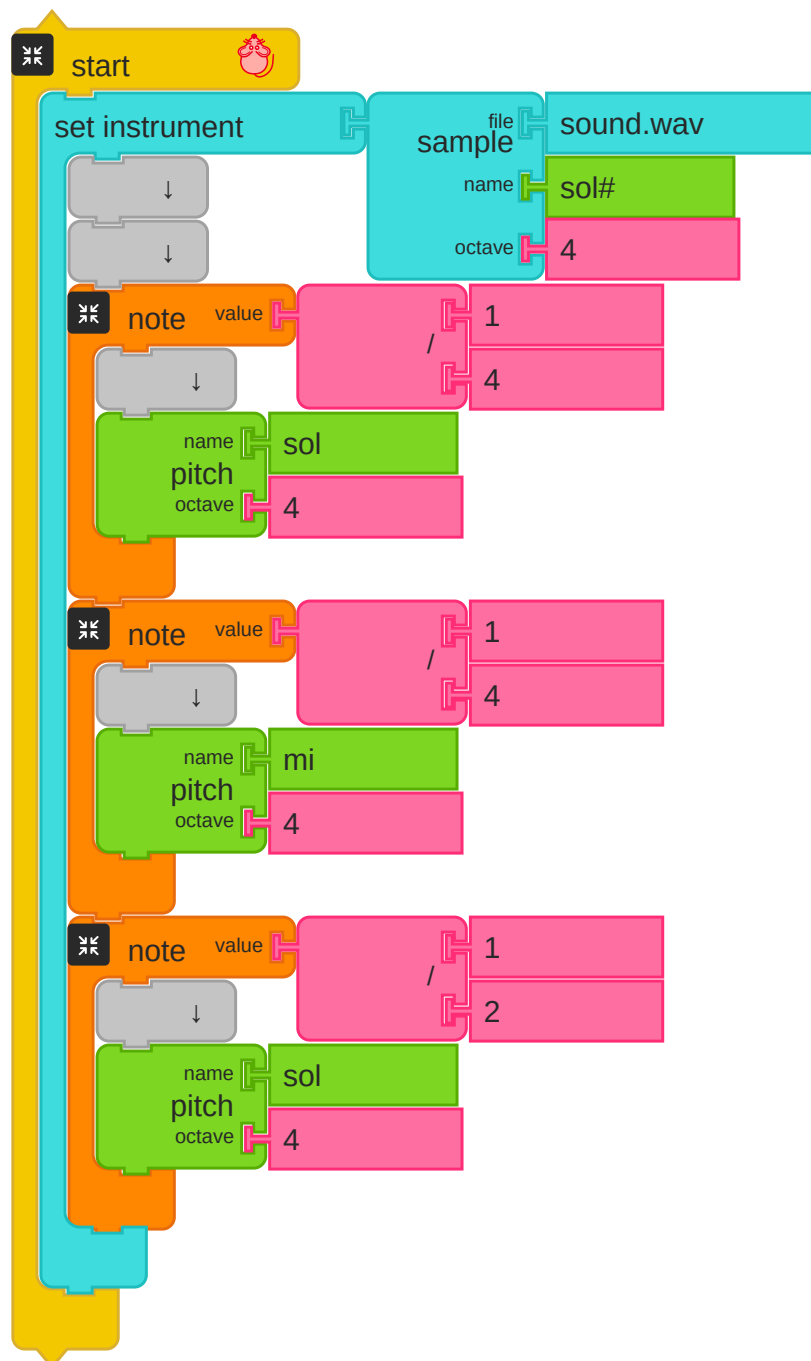
## 4.14 The Sampler



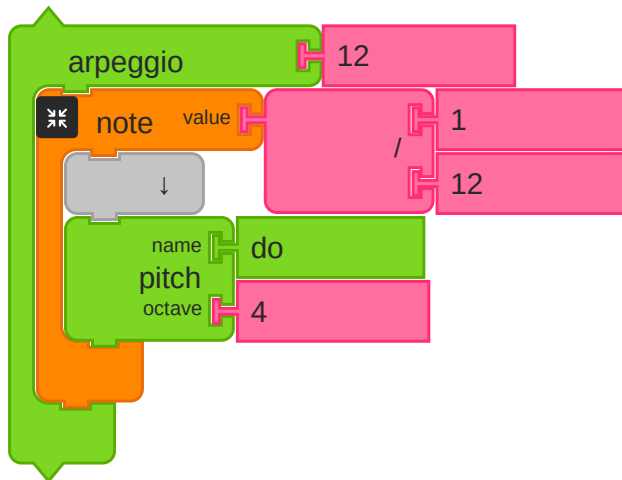
You can import sound samples (.WAV files) and use them with the "Set Instrument" block. The *Sampler* widget lets you set the center pitch of your sample so that it can be tuned.



You can then use the *Sample* block as you would any input to the *Set Instrument* block.

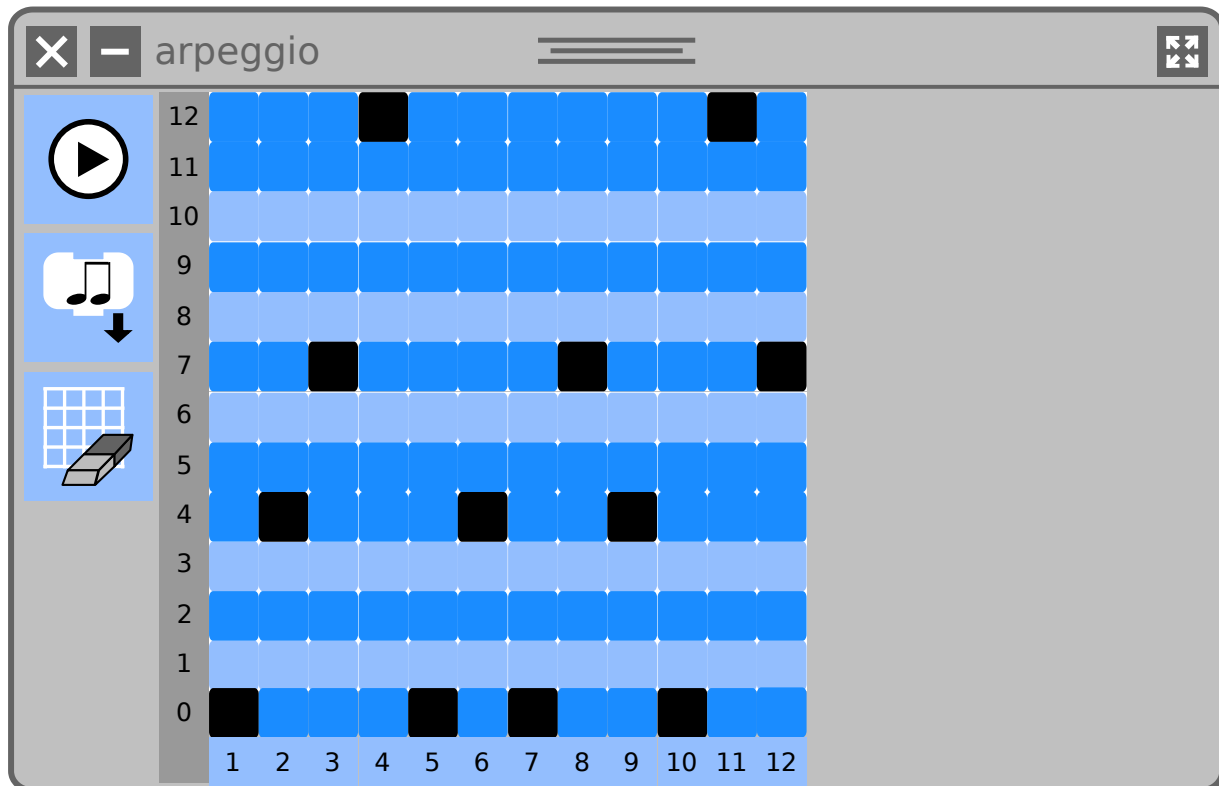


## 4.15 Arpeggio



You can design custom sequences to use with the *Arpeggio* block using the *Arpeggio* widget. The widget lets you "paint" intervals that are then saved to a "custom" chord, which can be used with the *Arpeggio* block.

The numeric argument to the widget block, 12 in the figure above, designates the number of columns. The widget always provides a range of half-steps (one octave in the default a 12-step equal-temperament tuning). (If you are in a temperament with more notes per octave, the grid will expand.) The rows that represent notes in the current mode are highlighted.



The horizontal axis is time and the vertical axis is half-step offsets from the base note.

The sequence in the pattern above is do mi sol do do mi do sol mi do do sol.

