3.4 Other Transformations

3.4.1 Set Volume and Crescendo

The *Set master volume* block will change the master volume. The default is `50`; the range is `0` (silence) to `100` (full volume).

The *Set synth volume* block will change the volume of a particular synth, e.g., `violin`, `snare drum`, etc. The default volume is `50`; the range is `0` (silence) to `100` (full volume). In the example, the *synth name* block is used to select the current synth.

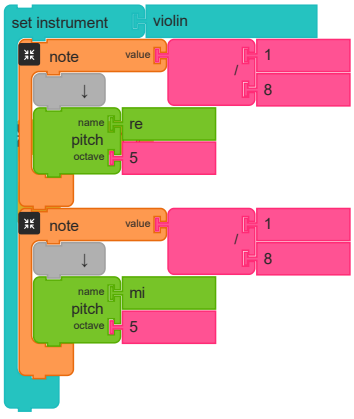
As a convenience, a number of standard volume blocks are provided: from loudest to quietest, there is *fff*, *ff* *f*, *mf*, *mp*, *p*, *pp*, and *ppp*. In musical terms “f” means “forte” or loud, “p” means “piano” or soft, and “m” means “mezzo” or middle.

The *Set Relative Volume* block modifies the clamped note’s volume according to the input value of the block in an added (or subtracted when negative) percentage with respect to the original volume. For example, `100` would mean doubling the current volume.

The *Crescendo* block will increase (or decrease) the volume of the contained notes by a specified amount for every note played. For example, if you have 3 notes in sequence contained in a *Crescendo* block with a value of `5`, the final note will be at 15% more than the original value for volume.

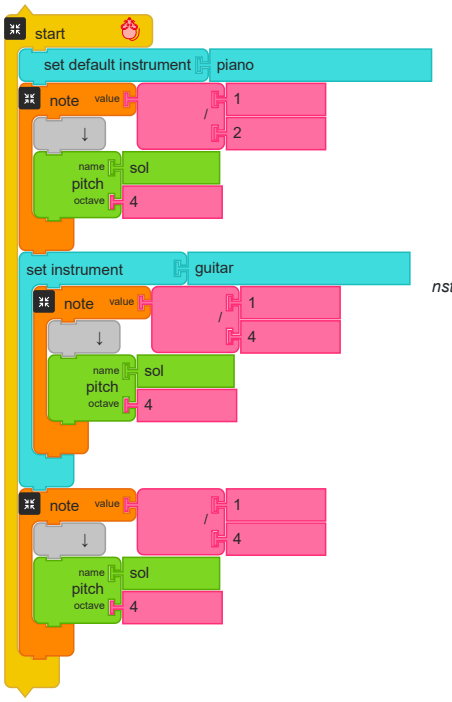
> NOTE: The *Crescendo* block does not alter the volume of a note as it is being played. Music Blocks does not yet have this functionality.

3.4.2 Setting Instrument



The default instrument is an electronic synthesizer, so by default, that is the instrument used when playing notes. You can override this

violin.

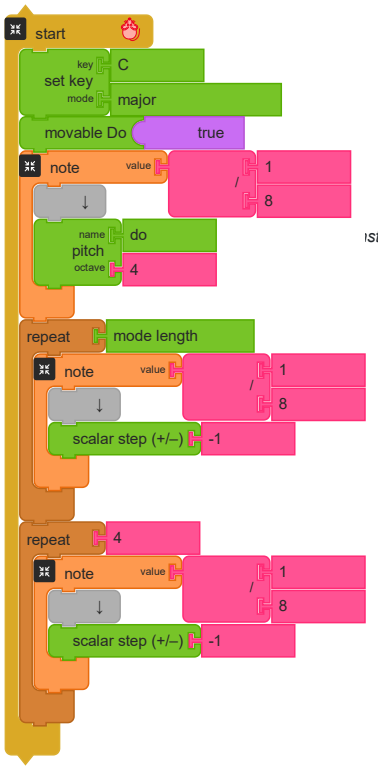


nstrument block. It will select an instrument for the synthesizer for any contained blocks, e.g.,

You can also override the default using the *Set default instrument* block. In the example above, the default instrument is set to piano, so

second note is guitar; and the third is piano.

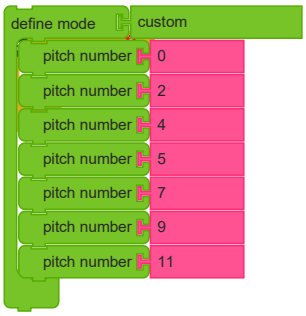
3.4.3 Setting Key and Mode



ıstrument block will be played using the piano synthesizer. The first note in this example is piano; the

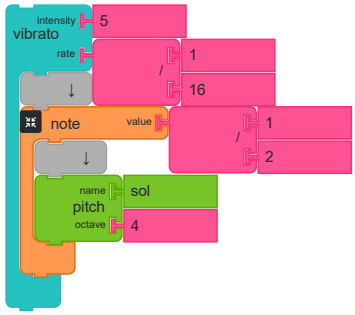
The *Set Key* block will change the key and mode of the mapping between solfege, e.g., `Do`, `Re`, `Mi`, to note names, e.g., `C`, `D`, `E`, when in C Major. Modes include Major and Minor, Chromatic, and a number of more exotic modes, such as Bebop, Geez, Maqam, etc.

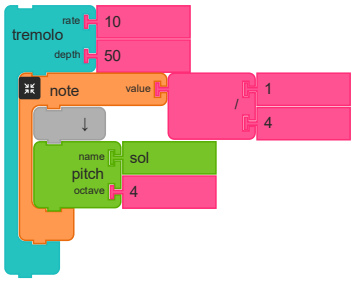
This block allows users to access “movable Do” within Music Blocks, where the mapping of solfege to particular pitch changes depending on the user’s specified tonality.

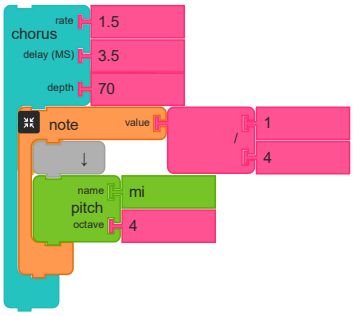


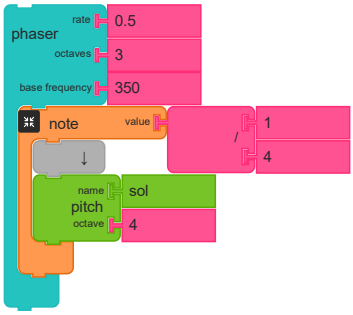
The *Define mode* block can be used to define a custom mode by defining the number and size of the steps within an octave. You can use your custom mode with the *Set key* block.

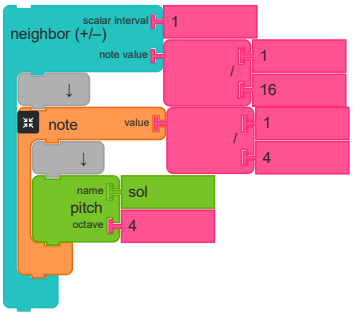
3.4.4 Vibrato, Tremelo, et al.

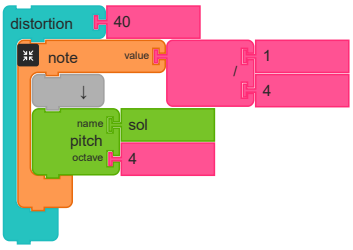












The *Vibrato* Block adds a rapid variation in pitch to any contained notes. The intensity of the variation ranges from `1` to `100` (cents), e.g. plus or minus up to one half step. The rate argument determines the rate of the variation.

The other effects blocks also modulate pitch over time. Give them a try.