Section 1: Live coding music with Sonic Pi

Sonic Pi is a program that lets you make music by writing code, rather than pressing keys on a piano, hitting drums, or plucking guitar strings.

To **listen** to a piece click the **Run** button.

To stop it playing click the Stop button.

Click on the following links to find Sonic Pi code for arrangments of these tunes: Shake it off - Taylor Swift Running up that Hill - Kate Bush This is what you came for - Calvin Harris Get Lucky - Daft Punk Sweet Dreams are Made of This - The Eurythmics

Select the code and use **Copy** and **Paste** to put it into one of the 9 buffers in the Sonic Pi window.

Push the tempo!

In Sonic Pi the command **use_bpm** tells the

Change the Synth

computer how fast to play the music. Here we're telling it to use a bpm (beats per minute) of 60:

Change the number, then click the **Run** button to hear how your new bpm sounds.

Synths (short for synthesisers) are

what the computer uses to create a note electronically as you play it. If you've ever played an electronic keyboard you've used a synth.

The **use_synth** command tells Sonic Pi which synth to use.

Try typing in a different value for the synth name (in pink) when you see the **use_synth** command. Some others to try are:





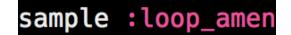


:prophet :pluck :supersaw :pretty_bell :mod_sine
:chiplead :hoover :tb303 :zawa :dsaw :piano

Click on the **Run** button again to hear the change in sound (it might take a few seconds to work).

Change the sample

Samples are small sound clips that have been made and recorded earlier. This command tells Sonic Pi to play the sample "loop_amen":



Try changing some of the samples used in the tunes you're remixing. Some samples to try are:

```
:vinyl_rewind :bass_drop_c :bd_haus :bd_808 :guit_em9
:drum_cymbal_open :tabla_na :misc_cineboom
:ambi_lunar_landing :drum_cymbal_closed :misc_crow
```

Change the FX

Effects (or **FX** for short**)** change the sound of synths and samples - like an FX pedal on an electric guitar.

This command tells Sonic Pi to use the "bitcrusher" effect.

with_fx :bitcrusher

Try changing the FX used when you see a **with_fx** command in the code you're remixing. Some to try out are:

```
:krush :wobble :echo :reverb :panslicer :ixi_techno
:gverb :ring_mod :distortion :compressor :whammy
```

Section 2: Create your own code

Click on the link below to find the Mehackit online tutorial for Sonic Pi: <u>https://sonic-pi.mehackit.org/</u>

Use your own samples

Ambient Scotrail <u>https://www.matteason.co.uk/scotbeats/</u>

You can download some of the Scotrail Announcements here (or get all of that selection by downloading the Wavs.zip file) <u>https://www.dropbox.com/sh/1s16iusa2rka0yk/</u> <u>AAA4zJWnGwpqcKzzmWPQktHja?dl=0</u>

Jam with a friend

The live_audio command allows you to add live input from someone playing an instrument

```
with_fx :reverb do
    live_audio :foo , input: 1, amp: 1
end
```

Some other resources

Sonic Pi video tutorials from music teacher Mister Bomb

Introductory https://www.youtube.com/playlist?list=PLIsdHp2z9wFICIiPWFwFSwCufexIcj_p

Intermediate https://www.youtube.com/playlist? list=PLIsdHp2z9wFlu3MRII0eS5NysniOOnXL5