

Play some beeps

By All About Code

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Play Some Beeps – EduBlocks Sonic Pi

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Objective

We are going to use the Python-Sonic library in EduBlocks to create some simple beeps in Sonic Pi.

Getting Started

1. Start by going into the Raspberry Pi menu and clicking on Programming, then Sonic Pi. This takes a few minutes to load, it is best not to click anywhere while this is loading as it can crash the program.
2. Double click on the EduBlocks desktop icon to open up the program. You are now ready to start coding.

Let's Code

Now its time to build our code. We can drag our code blocks from the EduBlocks toolbar which is on the left hand side of the screen. Our first 2 blocks can be found in the Sonic Pi tab. Change the 0 in the play block to say 60

```
from psonic import *
```

```
play( 60 )
```

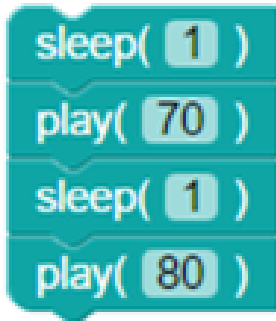
In this section of code we are importing the Python-Sonic library which talks to Sonic Pi. The play block will play 1 Midi note which is note 60.

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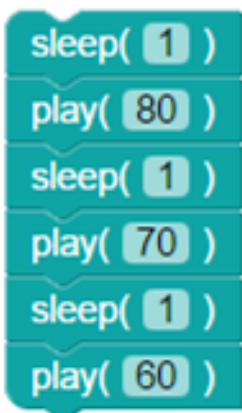
Let's Code

Our next 4 blocks can also be found in the Sonic Pi section of the toolbar. Drag them over to the workspace and connect to the previous blocks . When entering text into blocks click inside the pale blue boxes.



The sleep block will pause in between beeps. This prevents all the notes playing together. Without them you would only hear one sound.

Now we shall repeat the same notes but in the opposite order than the start. This will create a scale sounding piece of music. The blocks we have used are quite simple, however as you build them up you can recreate your favourite song!



Definition:
A scale is any set of musical notes ordered by fundamental frequency or pitch.

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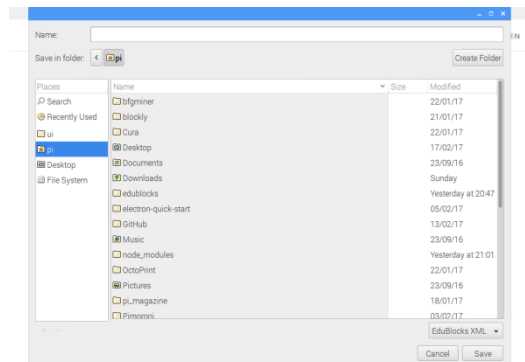
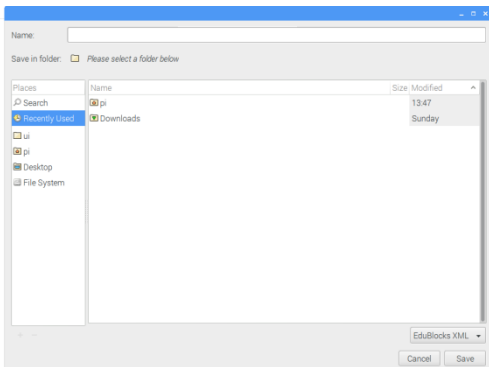
Save your code



All the blocks we have put into the workspace will form a final program like the one on the left hand side.

Before we run our code, let's save it. Click on the save button in the top right hand corner of the EduBlocks window. Select the folder called Pi.

Type in the file name box let's call it **playbeeps** then click save.

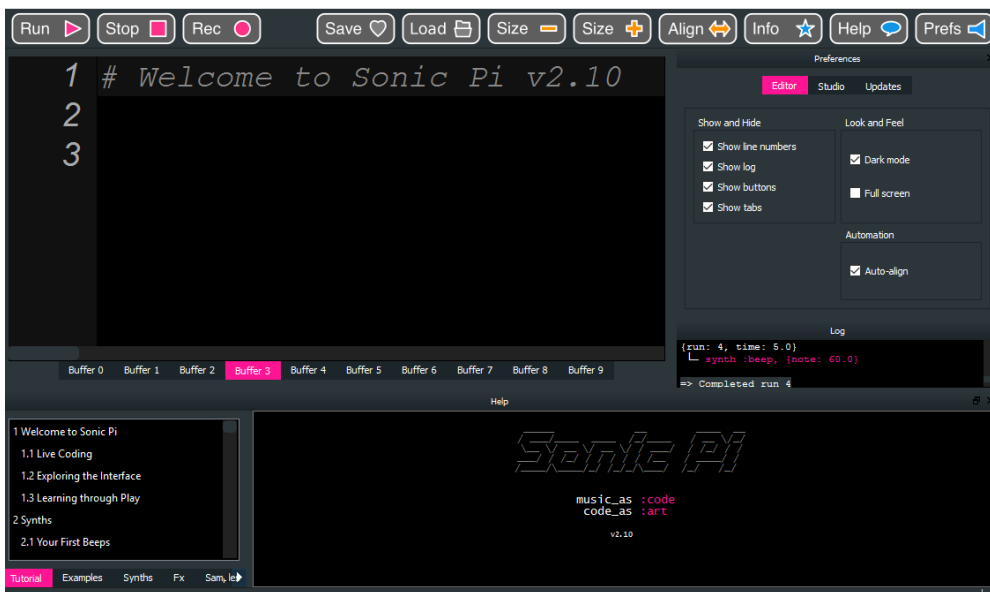


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Run your code

Now it's time to run our code. Click on the run button in the top right hand corner of the EduBlocks window. You should now hear your Scale play.



Outcome

In this tutorial we have learnt how to import libraries, talk to Sonic Pi using Python-Sonic (OSC) - in order to play a simple scale. Also, we learned about using sleeps and why they are important to prevent the notes playing all in one go.

Challenge: Experiment by changing the notes in the play blocks.