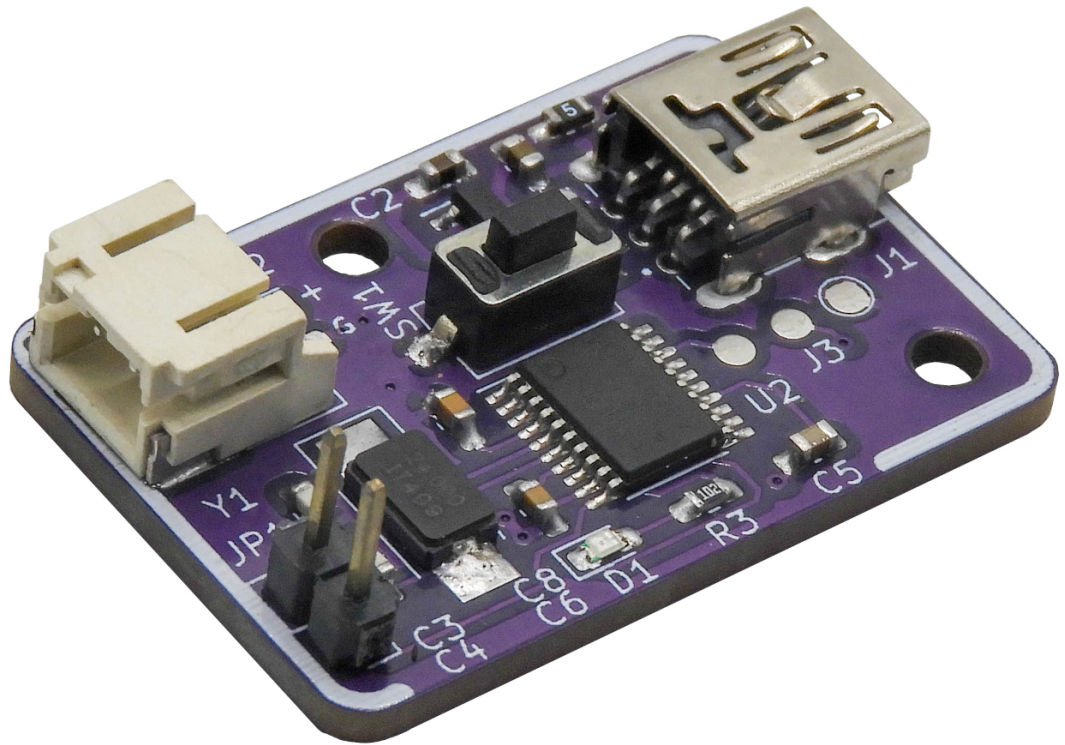


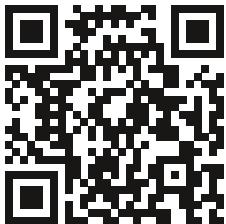
Simtelic



Programmable Music Module

Thank you for purchasing this Simtelic module.

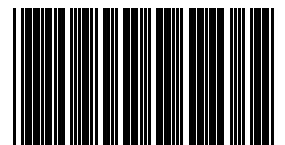
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EL0003

Introduction

Introducing the RTTTL Player Module - a compact device that lets you play RTTTL melodies with ease. Simply connect it to a USB and speaker, and you're good to go.

RTTTL (*Ring Tone Text Transfer Language*) is a simple text-based format for creating ringtones and melodies. With this module, you can not only read RTTTL files stored on its built-in EEPROM, but also choose to configure playback for either button activation or continuous looping. Powered by USB, this module is easy to integrate into your projects, and can add a custom sound to them.

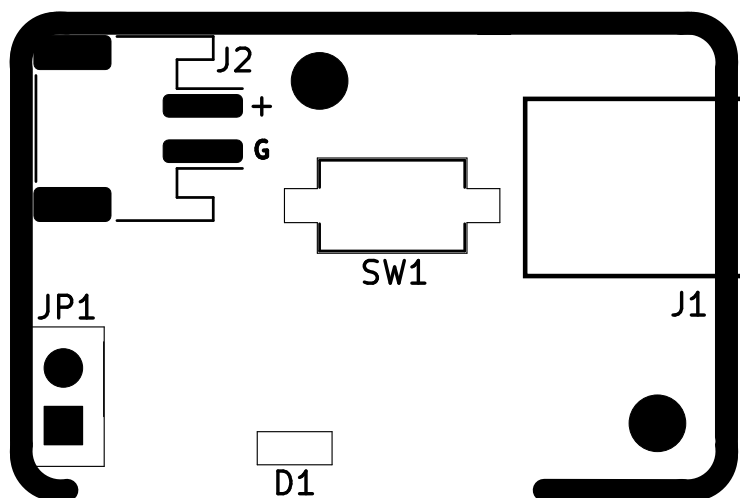
To make things even easier, a user-friendly Python script is included as the RTTTL loader. This script allows you to upload your desired melodies to the module's EEPROM with ease.

- **Plays RTTTL Melodies:** This module brings basic music creation to your projects by playing melodies written in RTTTL format.
- **Built-in EEPROM Storage:** Store your RTTTL files directly on the module's built-in 2Kbit EEPROM, eliminating the need for external storage.
- **Configurable Playback:** Choose between playing the melody on a button press for interactive applications or setting it to loop continuously for background ambiance.
- **Compact Design (32mm × 22mm):** This tiny module fits easily into any project, saving valuable space.
- **USB Powered:** Simple and convenient power supply via USB for easy integration.
- **Python RTTTL Loader:** The included Python script makes uploading your RTTTL melodies to the module a breeze.

EL0003

Identify connectors and adjustments

Top Side



JP1 - Select between the loop and single-play modes for the music module. If the jumper opens, it plays the music in a loop. If the jumper is set, the module plays music only once.

SW1 - Press this switch to replay music in single-play mode.

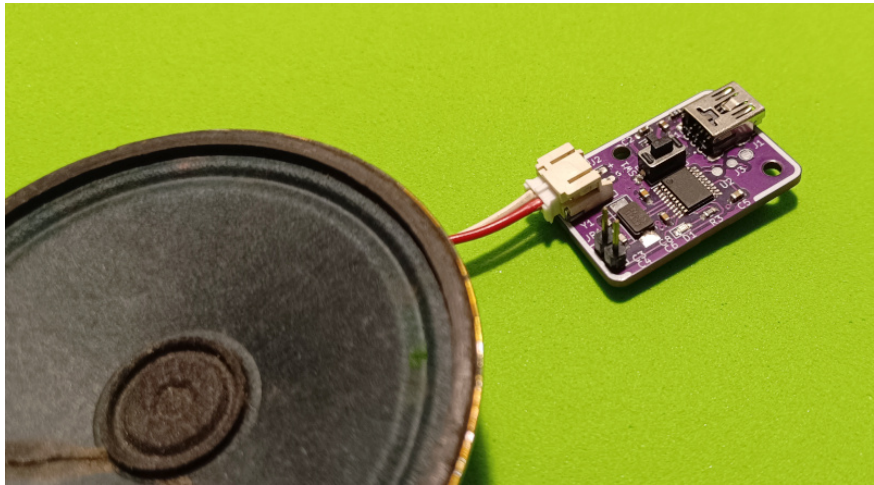
D1 - This LED lights up when the module is programming a new RTTTL file into the EEPROM memory.

J1 - The module can be powered and programmed through this mini USB socket.

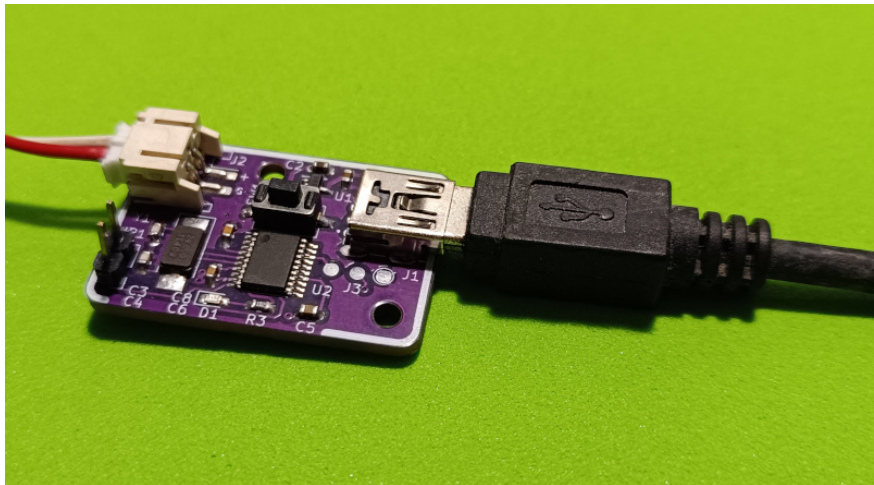
J2 - Audio output. connect an 8Ω speaker or small audio power amplifier such as the *Simtelic KT0001-LM386 Power Amplifier*.

Initial setup and configurations

1. Connect an 8R speaker to the music module using a J2 connector.

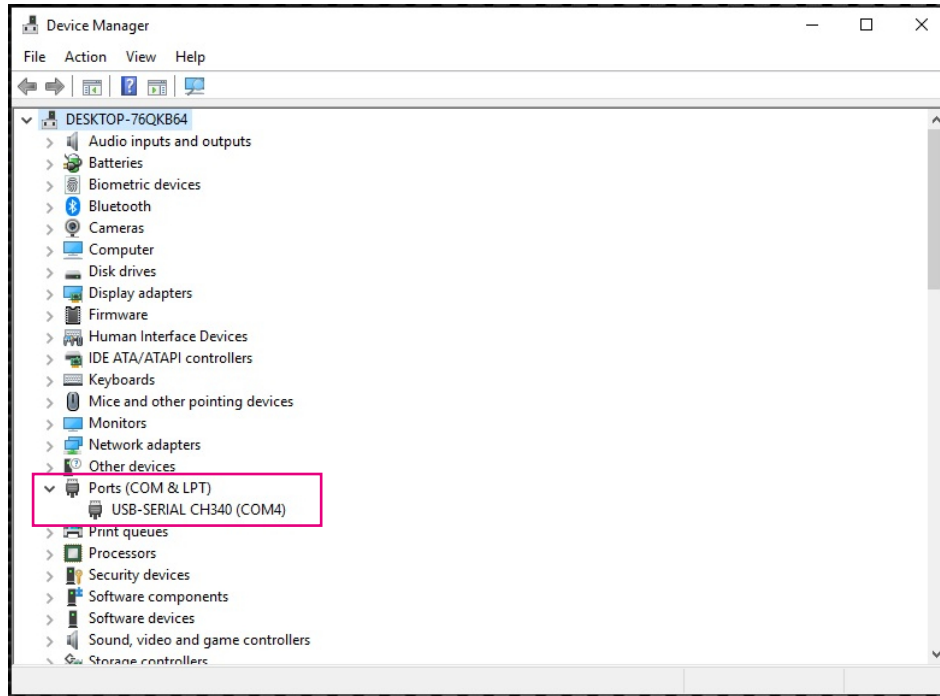


2. Connect the music module to the PC using a mini USB cable.



EL0003

3. If you are using the Windows operating system, check the device manager to identify the COM port associated with this music module.



In Linux and compatible operating systems, the communication interface mapping is `/dev/ttyUSBn` (where n is a number).

4. The loader utility of the music module is available at <https://github.com/simtelic/el0003-music-module> in a simple Python script form.

To get it directly from git, clone the repository at <https://github.com/simtelic/el0003-music-module> using the following command:

```
git clone https://github.com/simtelic/el0003-music-module.git
```

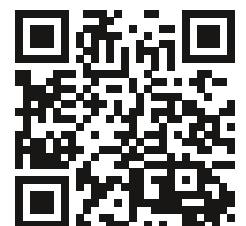
Navigate to <https://github.com/simtelic/el0003-music-module/archive/refs/heads/main.zip> or scan the QR code to download the loader script as a zip file.



5. Obtain a sample RTTTL file that fits into 2Kbit EEPROM space (for example https://github.com/neverfa11ing/FlipperMusicRTTTL/blob/main/RTTTL_generics/popcorn.txt)



The repository contains a large collection of RTTTL files available at <https://github.com/neverfa11ing/FlipperMusicRTTTL>. Most of the files in this repository are working with this module and can fit into a 2Kbit EEPROM space.



- After obtaining the loader script and RTTTL file(s), issue the following command to program the RTTTL file into the music module.

Windows

```
py rttl-loader.py -p COM5 -m write -f sample.txt
```

Linux

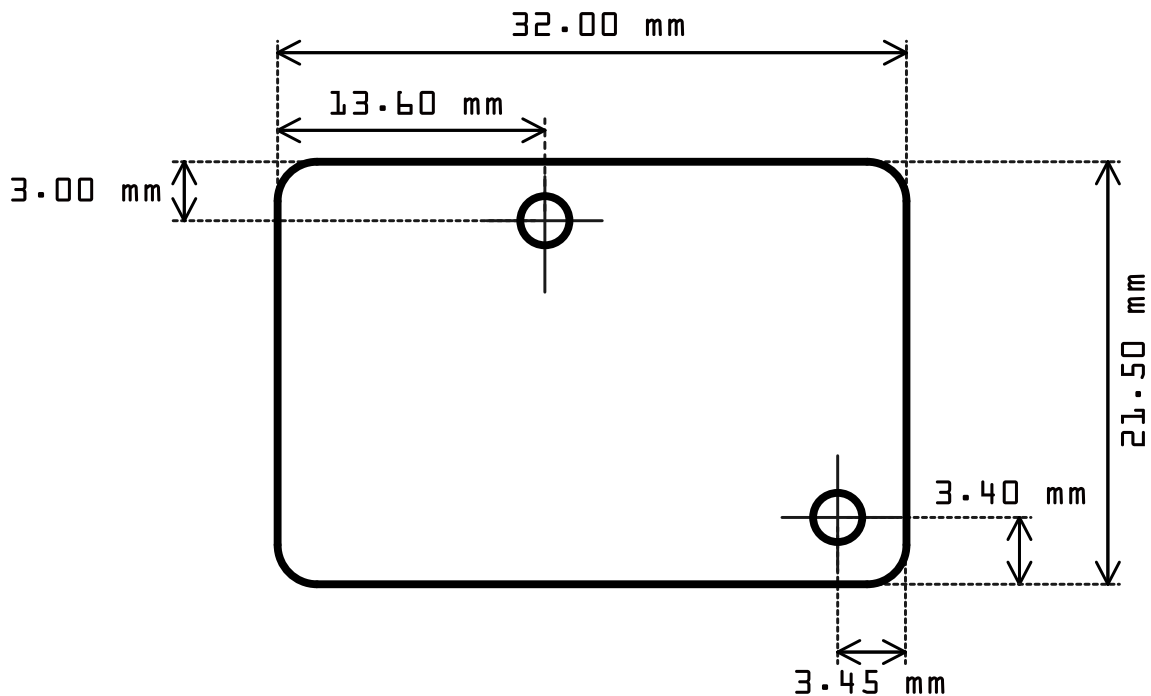
```
python3 rttl-loader.py -p ttyUSB0 -m write -f sample.txt
```

In the above commands, replace the port name and filename with the actual serial port and filename.

- After loading the RTTTL file, disconnect the USB cable from the PC and reconnect it to either the PC or a 5V USB charger/power supply.
- This music module has two modes: *single-play* and *looped-play*. To loop the music, open the JP1 jumper. In the *single-play* mode (close the JP1 jumper), the module plays clips only after the user presses SW1.

Module specification

- Dimensions of the module (width × height)..... 32.0mm × 21.5mm
- Weight (without JP1 jumper)..... 4.2g (± 0.2g)
- Average power consumption (with 8Ω load)..... < 1.25Wh
- Working voltage..... 5.0V DC



EL0003

Simtelic (Pvt) Ltd. cannot be held responsible in the event of damage or injury resulting from (incorrect) use of this module.

The continuous improvement of its products is the policy of Simtelic (Pvt) Ltd. who reserve the right to improve design without notice.

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