



Raspberry Pi Record Player



jsinkers

[VIEW IN BROWSER](#)

updated 11. 7. 2024 | published 11. 7. 2024

Summary

Raspberry Pi mini record player Snap-fit case to make your rpi into a mini record player!

[Hobby & Makers](#) > [Electronics](#)

Tags: [record](#) [raspberrypi](#) [raspberrypicase](#) [rpi](#) [thingiverse](#)
[recordplayer](#) [vinylrecord](#)

Raspberry Pi mini record player

Snap-fit case to make your rpi into a mini record player!

You can just use this as a neat looking case for your raspberry pi, however it was intended for use with RFID records - design of RFID records is also included - you need to pause mid-print and attach NFC tags. The setup we used is applicable to Sonos speakers and a setup guide can be followed [here](#). There are other tutorials for alternate approaches floating around.

Please note some images are from an earlier version of the model using an Rpi 3B+ and without bosses to mount the rfid reader. Snaps have also been modified.

Please note: due to small parts this model is not suitable for small children

Electronics

- Raspberry Pi: currently suits rpi zero W
- SD card imaged with raspberry pi OS
- PiicoDev adapter
- PiicoDev RFID reader - this was simply hot glued to the lid
- PiicoDev cable
- NFC 25mm stickers to stick inside records. (Alternatively, you can buy NFC discs off the shelf)

Case Hardware

- M2 screws to secure rpi and rfid reader in the case
- optional: M3 heat thread inserts and screws to securely close the lid

Notes

- the initial case design was based on [this youtube video](#) as I was learning how to use Fusion 360
- As the stylus arm, I cut a small length of a Diam. 3.25mm metal rod, however you could also print this part.
- the milk crates are an Australian type sourced [here](#) (paid)
- as album covers, we printed album art on card (a rectangle of ~104x52mm) and taped them up to hold the records
- as the current record players weren't intended to have anything attached via USB, I don't have cutouts for the ports but can add them if needed

Assembly

- Screw rpi into the base of the case.
- press the turntable into the lid of the case
- Screw rfid reader into lid of case
- assemble the stylus arm using the pivot, arm, and stylus
- press the stylus arm into the lid of the case
- install piicodev cable between adapter and rfid reader
- insert power cable
- check rpi is working
- if all good, then install the lid on the case - use screws if desired

Print Settings

Printer Brand:

Crealitiy

Printer:

CR-10

Rafts:

No

Supports:

Yes

Resolution:

0.2mm

Infill:

30%

Filament: eSun PLA+ gold/sky blue/pink

Notes:

I used supports at port locations but you may be able to get away without them. Should be a relatively simple print.

For the records, I used 100% infill, with a pause command mid-print (see video). I stuck down the NFC stickers in the middle of each print and then resumed the print.

Category: Electronics

Model files

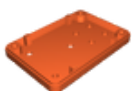
record-3.stl



platform.stl



top.stl





stylus_arm.stl



pivot.stl



stylus.stl



bottom.stl

[Find source .stl files on Thingiverse.com](https://www.thingiverse.com)

License ©



This work is licensed under a
Creative Commons (4.0 International License)

Attribution

- ✗ | Sharing without ATTRIBUTION
- ✓ | Remix Culture allowed
- ✓ | Commercial Use
- ✓ | Free Cultural Works
- ✓ | Meets Open Definition