

Blood Type Keychain with NFC Tag

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updated 14. 2. 2023 | published 14. 2. 2023

Summary

A keychain with imprinted blood group and NFC tag for important personal emergency information.



0.24 hrs



8 pcs



0.20 mm



0.40 mm



PLA



2 g



Prusa MINI /
MINI+

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Tags: [tag](#) [keychain](#) [key](#) [keyring](#) [chip](#) [emergency](#) [nfc](#)
[nfc tag](#) [blood](#) [bloodtype](#) [bloodgroup](#) [nfc chip](#)

Blood Type Keychain with NFC Tag

This is a remix of the keychain by **Max Siebenschläfer**. I didn't use any of his files, but I still want to mark this as a remix. I think his idea is great. Compared to the keychains by Max, these keychains are smaller. The design is similar, but not the same. The keychains have an outer diameter of 30 mm and a height of 3.6 mm.

The blood type of a person is printed on the keychain. A small NFC tag is inserted into the keychain during printing. Any information about the person can then be stored on the NFC tag. For example, I have saved the following information on my NFC tag:

- Name
- Telephone number of emergency contact
- Blood group
- Allergies
- Medications being taken
- Organ donor (yes/no)

In other words, **the NFC tag stores important information for emergencies** that is not on your identity card. I recommend not storing your address on the NFC tag! If the keychain with your keys and tag is found or stolen, they will know directly where you live. Not so good.

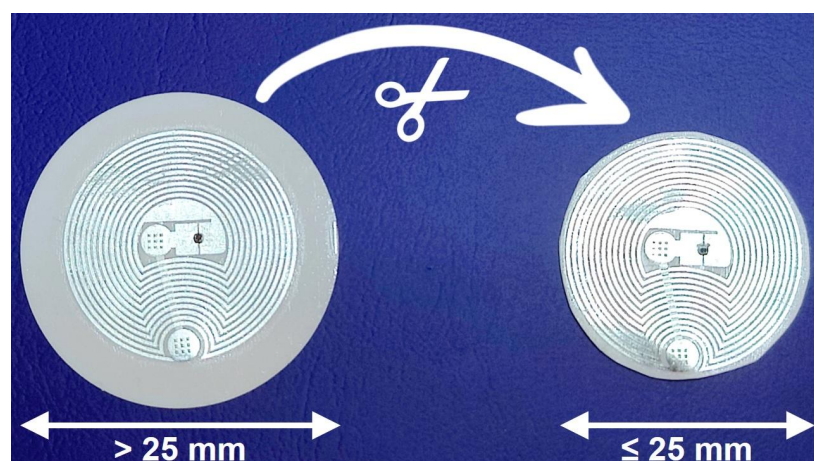
The information can be read by any NFC-enabled smartphone or tablet (or other NFC reader).

Materials

The following materials are needed for the keychain:

- Keyring with open bending ring ([Amazon Link](#))
- NFC tag sticker ([Amazon Link 1](#), [Amazon Link 2](#), [Amazon Link 3](#))

Generally, NFC tags with a maximum diameter of 25 mm fit in the keychain. Slightly larger NFC tags can also be cut to size, but please do not damage the wire of the NFC tag. I also cut the tag a little:



Writing Information on NFC Tags

There are several apps for writing the NFC tag. I use the app **NFC Tools** from **wakdev** on my Android smartphone. This app is also available for Apple devices.

- Android: <https://play.google.com/store/apps/details?id=com.wakdev.wdnfc>
- iOS: <https://apps.apple.com/de/app/nfc-tools/id1252962749>

The following short video shows how to write the emergency information on the NFC tag. It doesn't matter whether you write the NFC tag before or after inserting it into the keychain. The video shows the latter:

It is also possible to use the app to set up password protection against unwanted writing or deletion.

Printing

The NFC tag is inserted during printing. For this, a **print pause** must be added via the slicer software in the GCODE. The following YouTube video from **Prusa 3D** shows, among other things, how this is done using **PrusaSlicer**:

I also use PrusaSlicer. For the keychain, add a pause at a layer height of 2.20 mm (at a print resolution of 0.20 mm). Important: The print pause is done before printing the set layer, so the last printed layer is at 2.00 mm.

In addition, a **filament change** must take place during printing. The following are the layer heights for the different filament colours:

- 0.00 - 2.80 mm: housing (e.g. in red)
- 2.80 - 3.60 mm: lettering with the blood group (e.g. in white)

The print pause and filament change are already set in the GCODE and 3MF files.







My Print Settings

- **Printer:** Prusa MINI (0.4 mm nozzle)
- **Rafts:** No
- **Supports:** No
- **Resolution:** 0.2 mm
- **Infill:** 30 %
- **Filament brand:** Prusament
- **Filament color:** Prusa Galaxy Black, Galaxy Silver, ...
- **Filament material:** PLA

This remix is based on

Blood Type Keychain - With NFC Tag
by Max Siebenschläfer

Model files

STL files		9 files
	0_pos.stl	
	0_neg.stl	
	a_pos.stl	
	a_neg.stl	
	b_pos.stl	
	b_neg.stl	



ab_pos.stl



ab_neg.stl



nfc_logo_backside.stl

☐ Optional | NFC logo on the backside as separate STL file.



3MF files

8 files



0_pos.3mf

☐ Print pause and filament change are set.



0_neg.3mf

☐ Print pause and filament change are set.



a_pos.3mf

☐ Print pause and filament change are set.



a_neg.3mf

☐ Print pause and filament change are set.



b_pos.3mf

☐ Print pause and filament change are set.



b_neg.3mf

☐ Print pause and filament change are set.



ab_pos.3mf

☐ Print pause and filament change are set.



ab_neg.3mf

☐ Print pause and filament change are set.



F3D files (Fusion 360 project files)

4 files



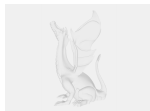
0_pos_neg.f3d

☐ Keychains for 0+ and 0- in one project file.



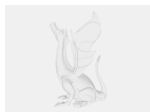
a_pos_neg.f3d

☐ Keychains for A+ and A- in one project file.



b_pos_neg.f3d

☐ Keychains for B+ and B- in one project file.



ab_pos_neg.f3d

☐ Keychains for AB+ and AB- in one project file.

Print files



GCODE files (Prusa MINI)

8 files



0_pos_02mm_pla_mini_14m.gcode

⚙️ PLA ⚙️ 0.40 mm ⚙️ 0.20 mm ⌚ 0.24 hrs ⚖️ 2 g 🖨️ Prusa MINI / MINI+

☐ Print pause and filament change are set.



0_neg_02mm_pla_mini_14m.gcode

⚙️ PLA ⚙️ 0.40 mm ⚙️ 0.20 mm ⌚ 0.23 hrs ⚖️ 2 g 🖨️ Prusa MINI / MINI+

☐ Print pause and filament change are set.



a_pos_02mm_pla_mini_14m.gcode

⚙️ PLA ⚙️ 0.40 mm ⚙️ 0.20 mm ⌚ 0.24 hrs ⚖️ 2 g 🖨️ Prusa MINI / MINI+

☐ Print pause and filament change are set.



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b_pos_02mm_pla_mini_14m.gcode

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☐ Print pause and filament change are set.

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