

DS1302 for Raspberry Pi 4

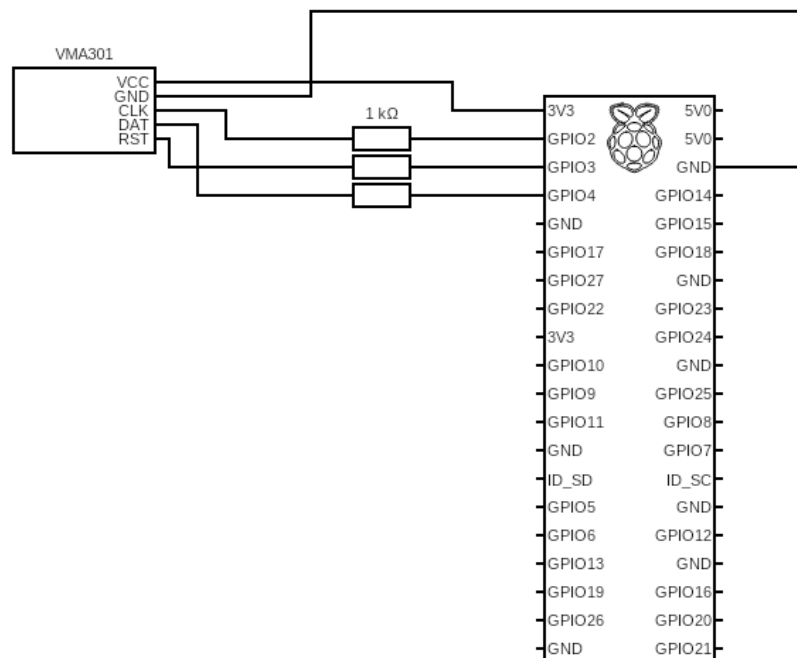
1. About

This work is based on Jason Birch's [Real Time Clock Python Source Code](#) under GNU GPLv3.

This version is adapted for Velleman VMA301 module alongside with Raspberry Pi 4 development board. You can contact me with

2. Circuit

Default circuit scheme is shown below. Keep in mind that layout of the GPIO pins can be modified in the config file. All of the resistors shown are 1K.



3. Configuring the software

By default raspbian OS uses network time as system time. First step should be to disable it and we accomplish this with:

```
sudo systemctl stop systemd-timesyncd
sudo systemctl disable systemd-timesyncd
```

Next we want to write info about current time to the chip and to do so we must run PythonRTC.py with the following arguments: *“year month dayofmonth dayofweek hours minutes seconds”*. All of the arguments are int type and no special formatting is required. Example:

```
sudo ./PythonRTC.py 2021 3 20 6 14 30 5
2021-03-20 14:30:05
```

6 represents Saturday as day of the week.

Lastly, system time gets updated by executing PythonRTC.sh script, therefore, in order to tell your system that this is the time you are going to use it should be setup as a startup script.