

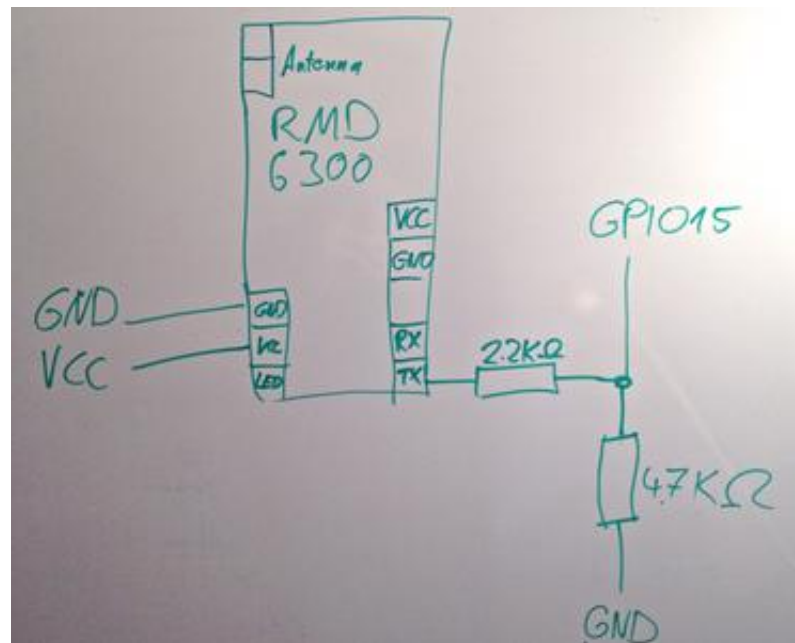
Raspberry Pi: RDM6300 RFID reader

I mentioned in [this post](#) that the RDM6300 can be connected to the Raspberry Pi. Since then I got several emails from people asking me how to do it. Unfortunately I don't have my RFID tags anymore. However I made notes when trying to do this the first time. If you encounter any problems / bugs when following these instructions please email me or leave a comment, so we can sort things out. (**Update:** My thanks to Matthias who tested these instructions and gave some clues to correct them.)

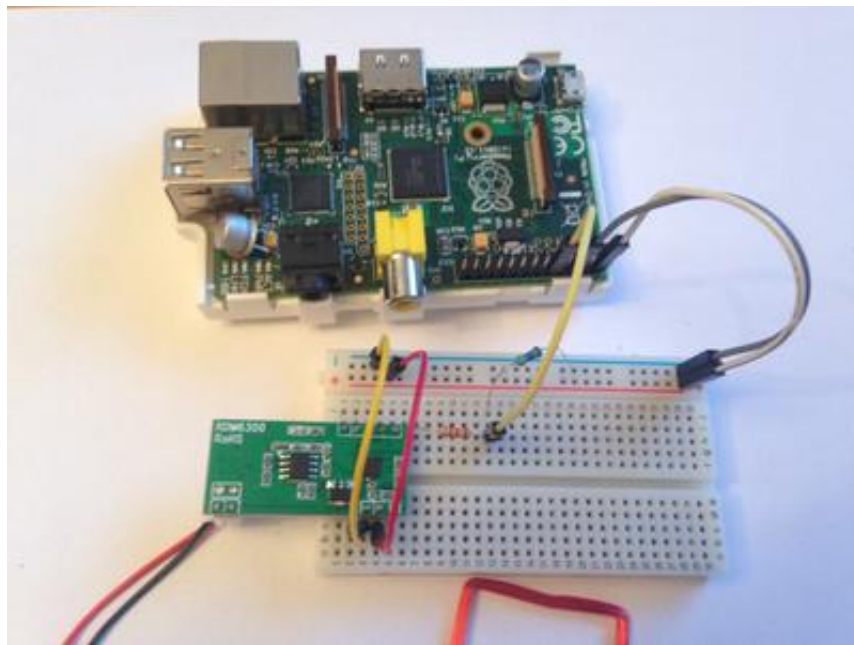
Wiring

Wire it up according to the schematics (click to enlarge). *GPIO15* is the UART RX pin of the RPi.

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Software

First disable the kernel debugging UART using `sudo raspi-config` (it should be under *"8 Advanced Options"* -> *"A8 Serial"*). Then install python and the serial package:

```
sudo apt-get install python python-pip
sudo pip install pyserial
```

Once you have python setup, create a file `readRFID.py` with the following content and execute `python readRFID.py`.

```
import serial
import sys
import time
from operator import xor
# UART
ID = ""
Zeichen = 0
Checksumme = 0
Tag = 0
# Flags
Startflag = "\x02"
Endflag = "\x03"
# Open UART (close first just to make sure)
UART = serial.Serial("/dev/ttyAMA0", 9600)
UART.close()
UART.open()
while True:
    # Reset vars
    Checksumme = 0
    Checksumme_Tag = 0
    ID = ""
    # Read chars
```

```

Zeichen = UART.read()
# Start of transmission signaled?
if Zeichen == Startflag:
    # Build ID
    for Counter in range(13):
        Zeichen = UART.read()
        ID = ID + str(Zeichen)
    # Remove endflag from string
    ID = ID.replace(Endflag, "" )
    # Calc checksum
    for I in range(0, 9, 2):
        Checksumme = Checksumme ^ (((int(ID[I], 16)) << 4) + int(ID[I+1], 16))
    Checksumme = hex(Checksumme)
    # Find tag
    Tag = ((int(ID[1], 16)) << 8) + ((int(ID[2], 16)) << 4) + ((int(ID[3], 16)) << 0)
    Tag = hex(Tag)
    # Print data
    print "-----"
    print "Data: ", ID
    print "Tag: ", Tag
    print "ID: ", ID[4:10], " - ", int(ID[4:10], 16)
    print "Checksum: ", Checksumme
    print "-----"

```

Again, since I did this a long time ago and reconstructed this post from my notes I can't guarantee that it works. However Matthias (a reader of this blog) gave me some feedback to correct this tutorial and tested if it works. Thank you for contributing.

Tags: [RaspberryPi](#), [RDM6300](#), [RFID](#)

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