

Libmodbus on Raspberry pi

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Raspberry Pi has gained popularity in recent days and a lot of enthusiasts / hobbyist would like to implement libmodbus on RPi to host a modbus master / slave. Here is “how to install libmodbus” guide on RPi (Raspbian).

1) Installing dependancies.

```
sudo apt-get install -y autoconf libtool
```

2) Clone libmodbus master branch by,

```
git clone https://github.com/stephane/libmodbus/
```

3) Enter the directory.

```
cd libmodbus
```

4) `./autogen.sh` && `./configure --prefix=/usr` && `make` && `sudo make install`

5) To test the libmodbus, try examples under tests folder.

To compile code, use `gcc filename.c -o filename $(pkg-config --libs --cflags libmodbus)`

Additional notes :

If you're using linux distros (other than debian based), such as Arch Linux or PiDora, you must use relevant package manger options in step #1. (like pacman or yum)

In order to use native RPi serial port for RTU mode, you MUST disable serial console by using `sudo raspi-config` as it conflicts with modes RTU communication.

Native serial port is listed as `ttyAMA0` under `/dev/` directory.

If you're using UART to RS485 chip like 75176 or anything similar, you would like to check the libmodbus raspberry pi fork which makes use of a GPIO to enable rx-tx. (Link : <https://github.com/dhruvvyas90/libmodbus>)

Known issue(s):

1. While using RPi native UART (/dev/ttyAMA0), RPi sometimes tends to append a null byte once port has been opened and it may result into invalid reply. (As per this issue link : <https://github.com/stephane/libmodbus/issues/302>).

You may want to use `modbus_flush(ctx)` after `modbus_connect` call just to ensure that byte is flushed. If problem persists, you may try OP's mothod of modifying `modbus-rtu.c` and recompile to make it effective.

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<https://github.com/stephane/libmodbus.wiki.git>

