

---

# **raspi Documentation**

*Release 0.0.2*

**Joao Carlos Roseta Matos**

**2017-05-01**



---

## Contents

---

<b>1</b>	<b>Description</b>	<b>3</b>
<b>2</b>	<b>Installation</b>	<b>5</b>
<b>3</b>	<b>Resources and contributing</b>	<b>7</b>
<b>4</b>	<b>Reference</b>	<b>9</b>
4.1	raspi . . . . .	9
<b>5</b>	<b>ChangeLog</b>	<b>11</b>
<b>6</b>	<b>License</b>	<b>13</b>
<b>7</b>	<b>Authors</b>	<b>19</b>
<b>8</b>	<b>Indices and tables</b>	<b>21</b>



This module provides some helper functions to use with the Raspberry Pi and the RPi.GPIO.



# CHAPTER 1

---

## Description

---

### **Description**

This module provides some helper functions to use with the Raspberry Pi and the RPi.GPIO.

When I can I will add more.

If anyone wishes to contribute with new code or corrections/suggestions, feel free.





## CHAPTER 2

---

### Installation

---

#### Installation

```
$ pip install raspi
```



---

## Resources and contributing

---

### Resources

- [Repository](#)

### Contributing

1. Fork the [repository](#) on GitHub.
2. Make a branch of master and commit your changes to it.
3. Ensure that your name is added to the end of the AUTHORS.rst file using the format: Name <email@domain.com>
4. Submit a Pull Request to the master branch on GitHub.

Copyright 2009-2015 Joao Carlos Roseta Matos. Licensed under the GNU General Public License v2 or later (GPLv2+).



## CHAPTER 4

---

Reference

---

**raspi**



## CHAPTER 5

---

### ChangeLog

---

0.0.2 2015-05-02

Added build system.

0.0.1 2014-11-22

First version





## CHAPTER 6

---

### License

---

raspi - Helper functions to use **with** the Raspberry Pi **and** the RPi.GPIO.  
Copyright 2009-2015 Joao Carlos Roseta Matos

This program **is** free software; you can redistribute it **and/or** modify it under the terms of the GNU General Public License **as** published by the Free Software Foundation; either version 2 of the License, **or** (at your option) **any** later version.

This program **is** distributed **in** the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY **or** FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License **for** more details.

You should have received a copy of the GNU General Public License along **with** this program; **if not**, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

GNU GENERAL PUBLIC LICENSE  
Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc., <<http://fsf.org/>>  
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA  
Everyone **is** permitted to copy **and** distribute verbatim copies of this license document, but changing it **is not** allowed.

Preamble

The licenses **for** most software are designed to take away your freedom to share **and** change it. By contrast, the GNU General Public License **is** intended to guarantee your freedom to share **and** change free software--to make sure the software **is** free **for** all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to

using it. (Some other Free Software Foundation software **is** covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, **not** price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (**and charge for** this service **if** you wish), that you receive source code **or** can get it **if** you want it, that you can change the software **or** use pieces of it **in** new free programs; **and** that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights **or** to ask you to surrender the rights. These restrictions translate to certain responsibilities **for** you **if** you distribute copies of the software, **or if** you modify it.

For example, **if** you distribute copies of such a program, whether gratis **or for** a fee, you must give the recipients **all** the rights that you have. You must make sure that they, too, receive **or** can get the source code. And you must show them these terms so they know their rights.

We protect your rights **with** two steps: (1) copyright the software, **and** (2) offer you this license which gives you legal permission to copy, distribute **and/or** modify the software.

Also, **for** each author's protection and ours, we want to make certain that everyone understands that there **is** no warranty **for** this free software. If the software **is** modified by someone **else and** passed on, we want its recipients to know that what they have **is not** the original, so that **any** problems introduced by others will **not** reflect on the original authors' reputations.

Finally, **any** free program **is** threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, **in** effect making the program proprietary. To prevent this, we have made it clear that **any** patent must be licensed **for** everyone's free use or not licensed at all.

The precise terms **and** conditions **for** copying, distribution **and** modification follow.

GNU GENERAL PUBLIC LICENSE  
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to **any** program **or** other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to **any** such program **or** work, **and** a "work based on the Program" means either the Program **or** any derivative work under copyright law: that **is** to say, a work containing the Program **or** a portion of it, either verbatim **or with** modifications **and/or** translated into another language. (Hereinafter, translation **is** included without limitation **in** the term "modification".) Each licensee **is** addressed **as** "you".

Activities other than copying, distribution **and** modification are **not** covered by this License; they are outside its scope. The act of running the Program **is not** restricted, **and** the output **from the** Program

**is** covered only **if** its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that **is** true depends on what the Program does.

1. You may copy **and** distribute verbatim copies of the Program's source code **as** you receive it, **in any** medium, provided that you conspicuously **and** appropriately publish on each copy an appropriate copyright notice **and** disclaimer of warranty; keep intact **all** the notices that refer to this License **and** to the absence of **any** warranty; **and** give **any** other recipients of the Program a copy of this License along **with** the Program.

You may charge a fee **for** the physical act of transferring a copy, **and** you may at your option offer warranty protection **in** exchange **for** a fee.

2. You may modify your copy **or** copies of the Program **or** any portion of it, thus forming a work based on the Program, **and** copy **and** distribute such modifications **or** work under the terms of Section 1 above, provided that you also meet **all** of these conditions:

- a) You must cause the modified files to carry prominent notices stating that you changed the files **and** the date of **any** change.
- b) You must cause **any** work that you distribute **or** publish, that **in** whole **or** **in** part contains **or** **is** derived **from the** Program **or** **any** part thereof, to be licensed **as** a whole at no charge to **all** third parties under the terms of this License.
- c) If the modified program normally reads commands interactively when run, you must cause it, when started running **for** such interactive use **in** the most ordinary way, to **print** **or** display an announcement including an appropriate copyright notice **and** a notice that there **is** no warranty (**or else**, saying that you provide a warranty) **and** that users may redistribute the program under these conditions, **and** telling the user how to view a copy of this License. (Exception: **if** the Program itself **is** interactive but does **not** normally **print** such an announcement, your work based on the Program **is not** required to **print** an announcement.)

These requirements apply to the modified work **as** a whole. If identifiable sections of that work are **not** derived **from the** Program, **and** can be reasonably considered independent **and** separate works **in** themselves, then this License, **and** its terms, do **not** apply to those sections when you distribute them **as** separate works. But when you distribute the same sections **as** part of a whole which **is** a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions **for** other licensees extend to the entire whole, **and** thus to each **and** every part regardless of who wrote it.

Thus, it **is not** the intent of this section to claim rights **or** contest your rights to work written entirely by you; rather, the intent **is** to exercise the right to control the distribution of derivative **or** collective works based on the Program.

In addition, mere aggregation of another work **not** based on the Program **with** the Program (**or with** a work based on the Program) on a volume of a storage **or** distribution medium does **not** bring the other work under the scope of this License.

3. You may copy **and** distribute the Program (**or** a work based on it, under Section 2) **in object** code **or** executable form under the terms of Sections 1 **and** 2 above provided that you also do one of the following:

a) Accompany it **with** the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 **and** 2 above on a medium customarily used **for** software interchange; **or**,

b) Accompany it **with** a written offer, valid **for** at least three years, to give **any** third party, **for** a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 **and** 2 above on a medium customarily used **for** software interchange; **or**,

c) Accompany it **with** the information you received **as** to the offer to distribute corresponding source code. (This alternative **is** allowed only **for** noncommercial distribution **and** only **if** you received the program **in object** code **or** executable form **with** such an offer, **in** accord **with** Subsection b above.)

The source code **for** a work means the preferred form of the work **for** making modifications to it. For an executable work, complete source code means **all** the source code **for all** modules it contains, plus **any** associated interface definition files, plus the scripts used to control compilation **and** installation of the executable. However, **as** a special exception, the source code distributed need **not** include anything that **is** normally distributed (**in** either source **or** binary form) **with** the major components (compiler, kernel, **and** so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable **or** object code **is** made by offering access to copy **from a** designated place, then offering equivalent access to copy the source code **from the** same place counts **as** distribution of the source code, even though third parties are **not** compelled to copy the source along **with** the object code.

4. You may **not** copy, modify, sublicense, **or** distribute the Program **except as** expressly provided under this License. Any attempt otherwise to copy, modify, sublicense **or** distribute the Program **is** void, **and** will automatically terminate your rights under this License. However, parties who have received copies, **or** rights, **from you** under this License will **not** have their licenses terminated so long **as** such parties remain **in** full compliance.

5. You are **not** required to accept this License, since you have **not** signed it. However, nothing **else** grants you permission to modify **or** distribute the Program **or** its derivative works. These actions are prohibited by law **if** you do **not** accept this License. Therefore, by modifying **or** distributing the Program (**or** any work based on the Program), you indicate your acceptance of this License to do so, **and** **all** its terms **and** conditions **for** copying, distributing **or** modifying the Program **or** works based on it.

6. Each time you redistribute the Program (**or** any work based on the Program), the recipient automatically receives a license **from the**

original licensor to copy, distribute **or** modify the Program subject to these terms **and** conditions. You may **not** impose **any** further restrictions on the recipients' **exercise of the rights granted herein**. You are **not** responsible **for** enforcing compliance by third parties to this License.

7. If, **as** a consequence of a court judgment **or** allegation of patent infringement **or for any** other reason (**not** limited to patent issues), conditions are imposed on you (whether by court order, agreement **or** otherwise) that contradict the conditions of this License, they do **not** excuse you **from the** conditions of this License. If you cannot distribute so **as** to satisfy simultaneously your obligations under this License **and any** other pertinent obligations, then **as** a consequence you may **not** distribute the Program at **all**. For example, **if** a patent license would **not** permit royalty-free redistribution of the Program by **all** those who receive copies directly **or** indirectly through you, then the only way you could satisfy both it **and** this License would be to refrain entirely **from distribution** of the Program.

If **any** portion of this section **is** held invalid **or** unenforceable under **any** particular circumstance, the balance of the section **is** intended to apply **and** the section **as** a whole **is** intended to apply **in** other circumstances.

It **is not** the purpose of this section to induce you to infringe **any** patents **or** other **property** right claims **or** to contest validity of **any** such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which **is** implemented by public license practices. Many people have made generous contributions to the wide **range** of software distributed through that system **in** reliance on consistent application of that system; it **is** up to the author/donor to decide **if** he **or** she **is** willing to distribute software through **any** other system **and** a licensee cannot impose that choice.

This section **is** intended to make thoroughly clear what **is** believed to be a consequence of the rest of this License.

8. If the distribution **and/or** use of the Program **is** restricted **in** certain countries either by patents **or** by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution **is** permitted only **in or** among countries **not** thus excluded. In such case, this License incorporates the limitation **as if** written **in** the body of this License.

9. The Free Software Foundation may publish revised **and/or** new versions of the General Public License **from time** to time. Such new versions will be similar **in** spirit to the present version, but may differ **in** detail to address new problems **or** concerns.

Each version **is** given a distinguishing version number. If the Program specifies a version number of this License which applies to it **and** "**any later version**", you have the option of following the terms and conditions either of that version **or** of **any** later version published by the Free Software Foundation. If the Program does **not** specify a version number of this License, you may choose **any** version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask **for** permission. For software which **is** copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions **for** this. Our decision will be guided by the two goals of preserving the free status of **all** derivatives of our free software **and** of promoting the sharing **and** reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

## CHAPTER 7

---

Authors

---

Joao Carlos Roseta Matos <jcrmatos@gmail.com>





## CHAPTER 8

---

### Indices and tables

---

- `genindex`
- `modindex`
- `search`