

#3

Maik Hoepfel
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“The Raspberry Pi is a series of small single-board computers developed in the United Kingdom by the Raspberry Pi Foundation to promote the teaching of basic computer science in schools and in developing countries.”

[BLOG](#)[DOWNLOADS](#)[COMMUNITY](#)[HELP](#)[FORUMS](#)[EDUCATION](#)[LATEST BLOG POST](#)**HELLO**
my name is**Raspberry Pi****RASPBERRY PI ZERO PIE-INK NAME BADGE**

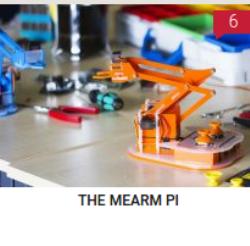
Josh King upgrades the simple name badge into an e-ink masterpiece.

[MORE FROM THE BLOG...](#)

INCLUSIVE LEARNING AT SOUTH LONDON RASPBERRY JAM



USING PI TO EXPERIENCE ANOTHER'S REALITY



THE MEARM PI



POLAPI-ZERO: THE TINY THERMAL-PRINTING CAMERA

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TEACH, LEARN AND MAKE WITH RASPBERRY PI

**LATEST EDUCATION NEWS**



RESOURCES

Free resources to teach, learn and make with Raspberry Pi



All resources...

NEW LEARN RESOURCE
GETTING STARTED WITH NODE-RED

TALK LIKE A PIRATE MAPPING THE WEATHER WEATHER STATION DASHBOARD

SPACE MAZE USING SCRATCH 2.0 ON RASPBERRY PI CAT MEME GENERATOR GRAPHING THE WEATHER

FETCHING THE WEATHER LIGHTS OUT! WHOOP! CUSHION SCARY SPOT THE DIFFERENCE

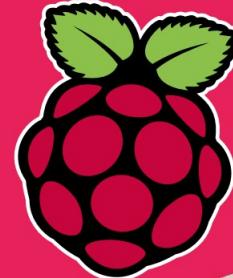
MICROMINE BITCRAFT ADD-ONS GUIDE TEACHERS' GUIDE TROUBLESHOOTING GUIDE

Two additional cards are partially visible at the bottom:

Two children looking at a computer screen. A hand holding a magnifying glass over a person's face.

THE OFFICIAL RASPBERRY PI MAGAZINE

The MagPi



Issue 54 February 2017

raspberrypi.org/magpi

MAKE A NIGHT-VISION NATURE CAMERA

Create your own Raspberry Pi-powered motion-sensing camera trap

MULTI-BOOT YOUR PI

The second part of our expert tutorial

COMMAND LINE GUIDE

Sudo apt-get good!

LEARN TO CODE WITH C

Simplify common operations on strings

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- CREATE AN EMPATHETIC ROBOT? HOW THOUGHTFUL
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5:10:18

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02

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THE ONLY PI MAGAZINE WRITTEN BY THE RASPBERRY PI COMMUNITY

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Just Bought A Raspberry Pi? 11 Things You Need To Know

MakeUseOf

2 years ago • 1,261,978 views

In this video, we explain everything you might need to know if you've just bought a Raspberry Pi, or are thinking of buying one.

Top 10 Coolest Raspberry Pi Projects

Geeks Life

10 months ago • 895,706 views

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Raspberry Pi as Fast As Possible

Techquickie

3 months ago • 469,616 views

The Raspberry Pi is a computer not much bigger than a credit card that's been used for all sorts of cool projects! So what can it do ...

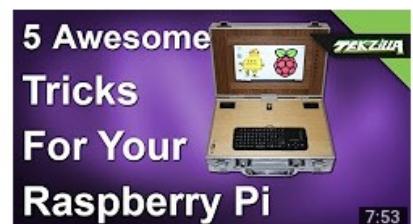


Raspberry Pi 3 Display Sign // Electronics How To

I Like To Make Stuff

6 months ago • 207,661 views

I used a Raspberry Pi 3 to make a display sign with a 32x32 RGB LED matrix! Subscribe to my channel: <http://bit.ly/1k8msFr> ...



5 Awesome Raspberry Pi Builds

Tekzilla

2 years ago • 869,740 views

This story and more in the FULL episode: <http://revision3.com/tekzilla/5-awesome-raspberry-pi-builds> ... Have ...



ambi-tv: computer-less ambilight-clone based on Raspberry Pi

gkaindl

3 years ago • 127,706 views

ambi-tv is a software framework to build an Ambilight clone based on an



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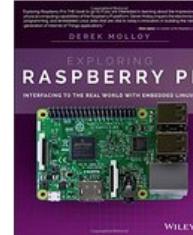
Paperback

Kindle Edition

Audible Audio Edition

Book Language

Book Format: Paperback | Kindle Edition

Best Seller**Exploring Raspberry Pi: Interfacing to the Real World with Embedded Linux**

by Derek Molloy

Paperback

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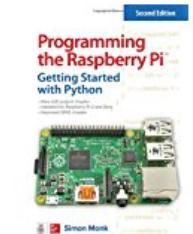
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by Simon Monk

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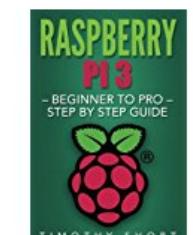
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by Timothy Short

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Nov 9, 2016



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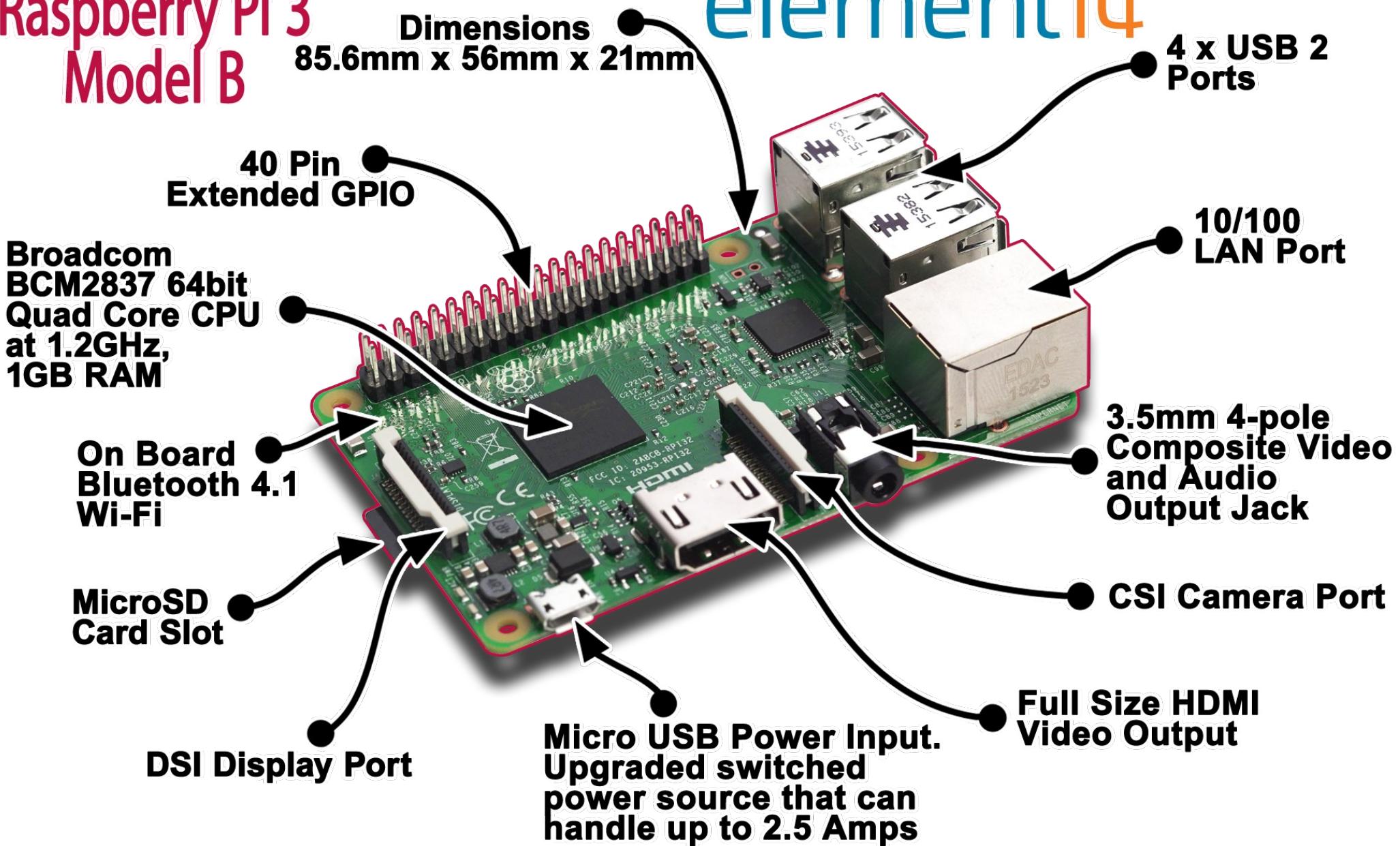
Latest Projects you can do with a Raspberry pi

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NEW ITEMS IN STOCK. PLEASE ORDER WHILE STOCKS LAST!!

Raspberry Pi 3 Model B

element¹⁴



PIXEL desktop

```
autocastle.py - /home/pi  
File Edit Search View Document Project Build Tools Help  
lock.py planet.py autocastle.py  
8     for i in range(0,length/2):  
9         box(STONE_BRICK,p+point(i*2,height+2,-1),point(i*2,height+2,1))  
10      
11    def battlement_y(p, length, height):  
12        box(STONE_BRICK,p+point(1,height,length))  
13        box(STONE_BRICK,p+point(-1,height,0),point(3,2,length))  
14        for i in range(0,length/2):  
15            box(STONE_BRICK,p+point(-1,height+2,i*2),point(1,height+2,i*2))  
16      
17    def walls(p,size):  
18        battlement_x(p,size.x, size.y)  
19        battlement_y(p,size.z, size.y)  
20        battlement_x(p+point(0,0,size.z),size.x, size.y)  
21        battlement_y(p+point(size.x,0,0),size.z, size.y)  
22      
23    def tower(p,height):  
24        walls(p,point(5,height,5))  
25      
26      
27    def castle(p,size):  
28        walls(p,size)  
29        tower(p+point(-2,0,-2),size.y*2)  
30        tower(p+point(size.x-2,0,size.z-2),size.y*2)  
31        tower(p+point(-2,0,size.z-2),size.y*2)  
32        tower(p+point(size.x-2,0,-2),size.y*2)  
33      
34    castle(point(0,0,0),point(40,2,40))  
35    castle(point(8,0,8),point(24,5,24))  
36    castle(point(15,0,15),point(10,8,10))  
37
```

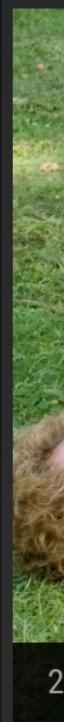


```
▲ building  
finished building  
pi@raspberrypi: ~ /code/discord/Lessons $ python "autocastle.py"  
Scribble  
Terminal  
Messages  
Scribble  
Terminal  
pi@raspberrypi: ~ /code/discord/Lessons $ [REDACTED]  
line: 35 / 37  col: 33  row: 4  MS  TAB  model: Unix/LF  encoding: UTF-8  lifecycle: Python  scope: UNKNOWN
```

```
Minecraft - Pi edit... pi@raspberrypi: ~ autocastle.py - h
```



MediaBrowser ...



G

A B C D E F

G H I J K L

M N O P Q R

S T U V W X

Y Z 0 1 2 3

4 5 6 7 8 9

DEL SPACE CLR

Movies



Gran Torino



Grown Ups



Gladiator



Goodfellas



Grown Ups 2



Groundhog Day



Get the Gringo

Series



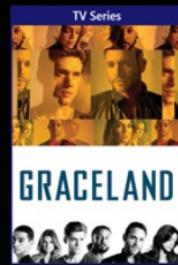
Girls



Grimm



Game of Thrones



Graceland



Gotham



Glee



Falling Skies

Episodes

Grace
S01E04Ghost in the...
S04E01God Mode
S02E22Get Carter
S01E09Ghosts
S01E02Gyre (1)
S01E11Gyre (2)
S01E12

20

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Tetris

Home Assistant

HOME ROOMS

Anne Therese Paulus Humidity Temperat...

Welcome Home!

To install Home Assistant, run:
pip3 install homeassistant
hass --open-ui

Here are some resources to get started.

- [Home Assistant website](#)
- [Installation instructions](#)
- [Troubleshooting your installation](#)
- [Configuring Home Assistant](#)
- [Available components](#)
- [Troubleshooting your configuration](#)
- [Ask community for help](#)

Configurator

Philips Hue [CONFIGURE](#)

Rooms

Living Room
Bedroom

General

Alarm armed home
Garage Door
Kitchen Door
Nest Currently: 18 °C

Living Room

of THRONES
Chromecast
The Dance Of Dragons
Game Of Thrones S5E09

Power Backward Forward More

Script

Water Lawn [ACTIVATE](#)

Scene

Romantic [ACTIVATE](#)



Alternate Function	
3.3V PWR	1
GPIO 2	3
GPIO 3	5
GPIO 4	7
GND	9
GPIO 17	11
GPIO 27	13
GPIO 22	15
3.3V PWR	17
SPI0 MOSI	GPIO 10
SPI0 MISO	GPIO 9
SPI0 SCLK	GPIO 11
GND	25
Reserved	27
GPIO 5	29
GPIO 6	31
GPIO 13	33
SPI1 MISO	GPIO 19
GPIO 26	35
GND	37
2	5V PWR
4	5V PWR
6	GND
8	UART0 TX
10	UART0 RX
12	GPIO 18
14	GND
16	GPIO 23
18	GPIO 24
20	GND
22	GPIO 25
24	GPIO 8
26	GPIO 7
28	Reserved
30	GND
32	GPIO 12
34	GND
36	GPIO 16
38	GPIO 20
40	GPIO 21
Alternate Function	

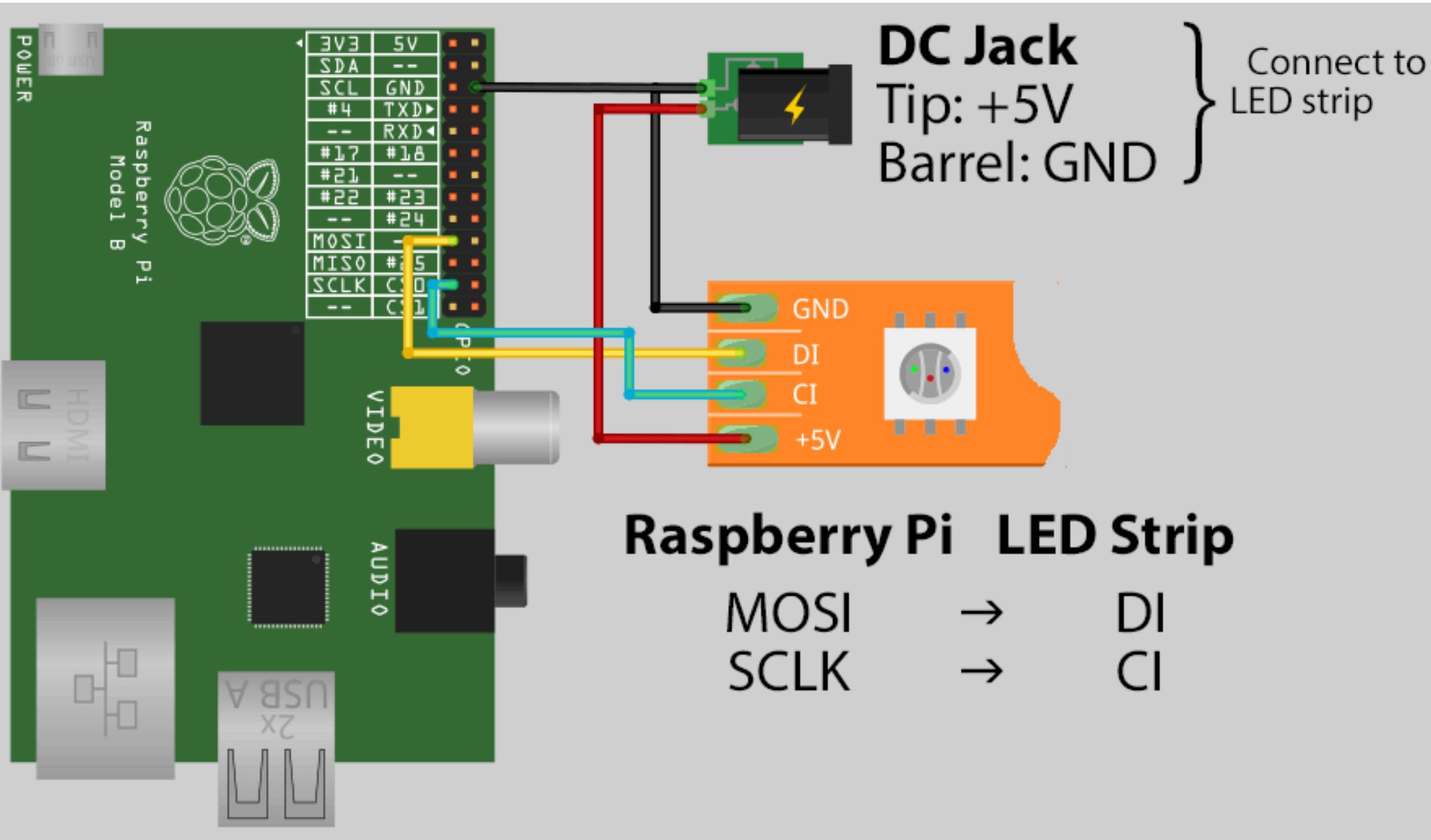
```
from gpiozero import LED  
from time import sleep  
  
led = LED(17)  
  
  
while True:  
    led.on()  
    sleep(1)  
    led.off()  
    sleep(1)
```

```
from gpiozero import LED, Button  
from signal import pause  
  
led = LED(17)  
button = Button(3)  
  
button.when_pressed = led.on  
button.when_released = led.off  
  
pause() # Otherwise script would exit right away
```



Alternate Function	
3.3V PWR	1
GPIO 2	3
GPIO 3	5
GPIO 4	7
GND	9
GPIO 17	11
GPIO 27	13
GPIO 22	15
3.3V PWR	17
SPI0 MOSI	GPIO 10
SPI0 MISO	GPIO 9
SPI0 SCLK	GPIO 11
GND	25
Reserved	27
GPIO 5	29
GPIO 6	31
GPIO 13	33
SPI1 MISO	GPIO 19
GPIO 26	35
GND	37
2	5V PWR
4	5V PWR
6	GND
8	UART0 TX
10	UART0 RX
12	GPIO 18
14	GND
16	GPIO 23
18	GPIO 24
20	GND
22	GPIO 25
24	GPIO 8
26	GPIO 7
28	Reserved
30	GND
32	GPIO 12
34	GND
36	GPIO 16
38	GPIO 20
40	GPIO 21
Alternate Function	





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PyCon Namibia 2017: lightning talk progress meter with Raspberry Pi and APA102 LED strip

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19 commits

1 branch

0 releases

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maikhoepfel	Add shutdown hack	Latest commit 4ddd423 a day ago
.gitignore	First work	5 days ago
README.md	Add README	a day ago
apa102.py	First work	5 days ago
weerlig.py	Add shutdown hack	a day ago

[README.md](#)

weerlig

PyCon Namibia 2017: lightning talk progress meter with Raspberry Pi and APA102 LED strip

Little demo of what cool things one can do with a Raspberry Pi. Hacked together for PyCon Namibia 2017. It controls a LED strip to indicate remaining time for lightning talks, and can be started and reset with a button.

This uses an APA102 LED strip, well suited for use with a Raspberry Pi, because it is less timing critical. The library used for interfacing is https://github.com/tinue/APA102_Pi.



Thanks!