

**Trendy ideas
from a proud
Tinkerer !**



Virtual Technology
Conference
Saturday, 02/11/17
@ 1 PM ET

Conference Description
& Registration Links go to
apcug2.org/content/virtual-conferences

Stew Bottorf
Tampa Bay Computer Society



SoC devices:

Raspberry Pi

KODI Media Player

Android and Pi

Digital Signage

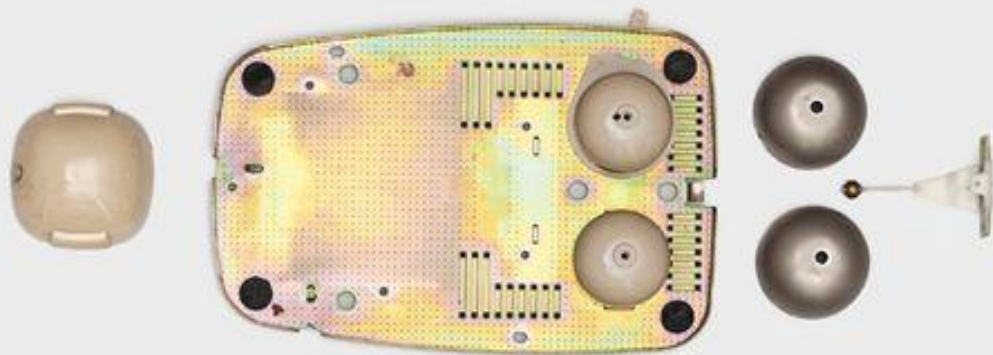
I o T

Trendy ideas from a proud Tinkerer !

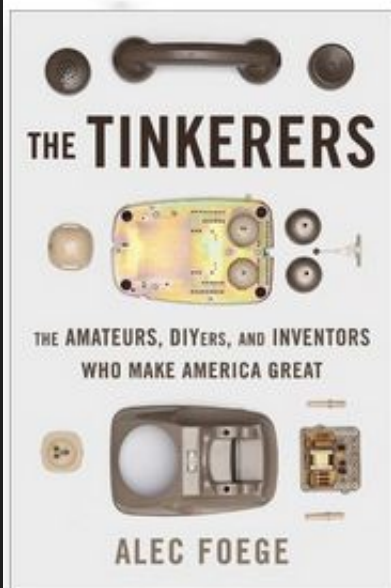


Stew Bottorf
Tampa Bay Computer Society

THE TINKERERS



THE AMATEURS, DIYERS, AND INVENTORS
WHO MAKE AMERICA GREAT

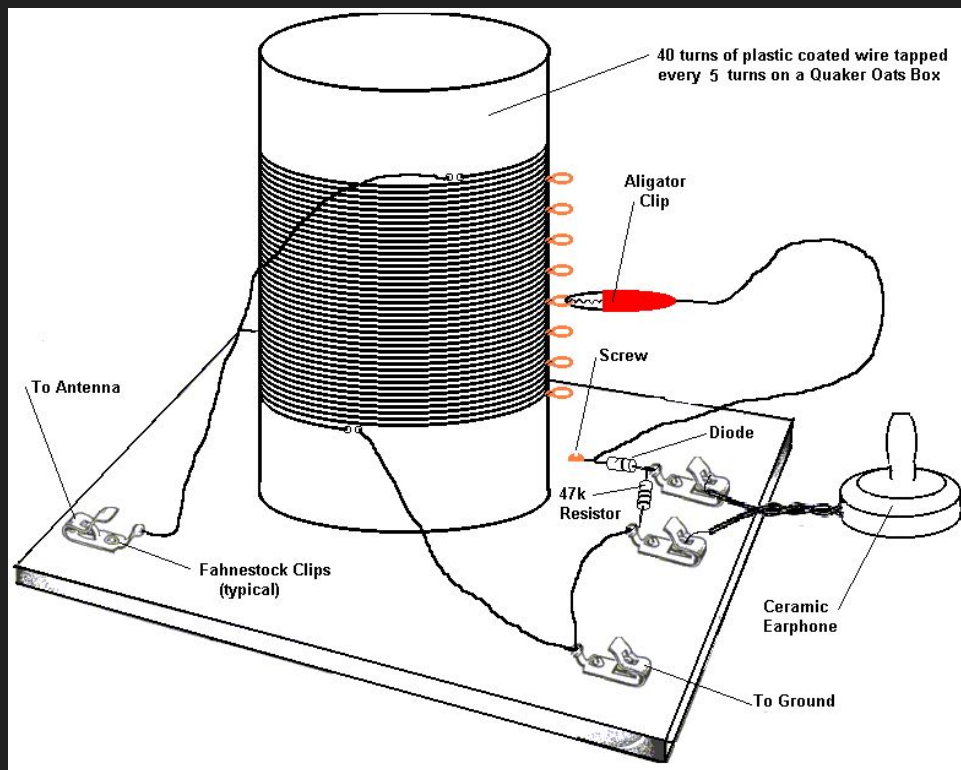


The Tinkerers: The Amateurs, DIYers, and Inventors Who Make America Great

by Alec Foegel

★★★★☆ 3.2

From its earliest years, the United States was a nation of tinkerers: men and women who looked at the world around them and were able to create something genuinely new from what they saw. Guided by their innate curiosity, a desire to know how things work, and a belief that anything can be improved, amateurs and professionals from Benjamin Franklin to Thomas Edison came up



CONVERTING EVERYTHING TO COAL POWER
[HOW TO DO IT TERRIBLY—EXPENSIVELY—AND WITH GREAT DIFFICULTY]

WONDERMARK'S

... NOMINALLY-ESSENTIAL ...



TINKERERS' HANDBOOK.

The magazine for people who cannot leave well enough alone



"Let Us Meddle."

A RALLYING CRY FOR A GENERATION.

Such are the benefits afforded us all by the unending march of Progress, that each new dawn finds many a person safe, fed, clothed and sheltered. A citizen of our modern era rarely finds him- or herself in a deadly battle for survival, as was common for the first generations of Mankind. Thus do our bodies, evolved for and hardened by constant struggle, often find themselves idle; and without some constant whetting, thus swiftly begins the degenerative process of death.

Some people have rebelled against this notion, and constantly keep on the move, busying themselves with the creation of novel problems and competing to find overly-elaborate ways to solve them. This magazine is our attempt to cash in on that demographic.



OVER 2 PROJECTS INSIDE

wondermark.com

THE LATEST GOODS

... THAT YOU CANNOT EXIST WITHOUT ...



TINKERBOX

PARTS • TOOLS

SHINY SUNDRIES DESIGNED
TO RAPIDLY EXPEND YOUR
WORKING CAPITAL.

BEST PRICES OF THE SEASON

ENCLOSE CASH WITH ORDER



FISH GRASPERS.

Expand the capability of any device with the addition of Fish Graspers. Your stove, coffeepot, tire-jack &c. will do double duty with this tool securely installed. \$1.00



THE MANGLER.

Should your handicrafts call for fresh bone marrow, this bench-mounted device will extract it speedily. Why pay for store-bought? Fresh is unmatched for flavor. \$3.50



COIN-PURSE GUN.

A weapon to keep handy at all times of day or night. Fend off bothersome insects without danger of injury to others. Provoke comforting touches before boarding aircraft. \$2.00



MOONDIAL.

The best tool yet invented to ensure marital harmony. Gentlemen, hide this in the back yard and see on which days you should keep your fat mouth shut. \$5.25



ROBOT SHAVER.

Children and animals are not allowed in most robot competitions. Hide your treachery with this shaver—removes hair and imparts a waxy, metallic sheen. \$2.00

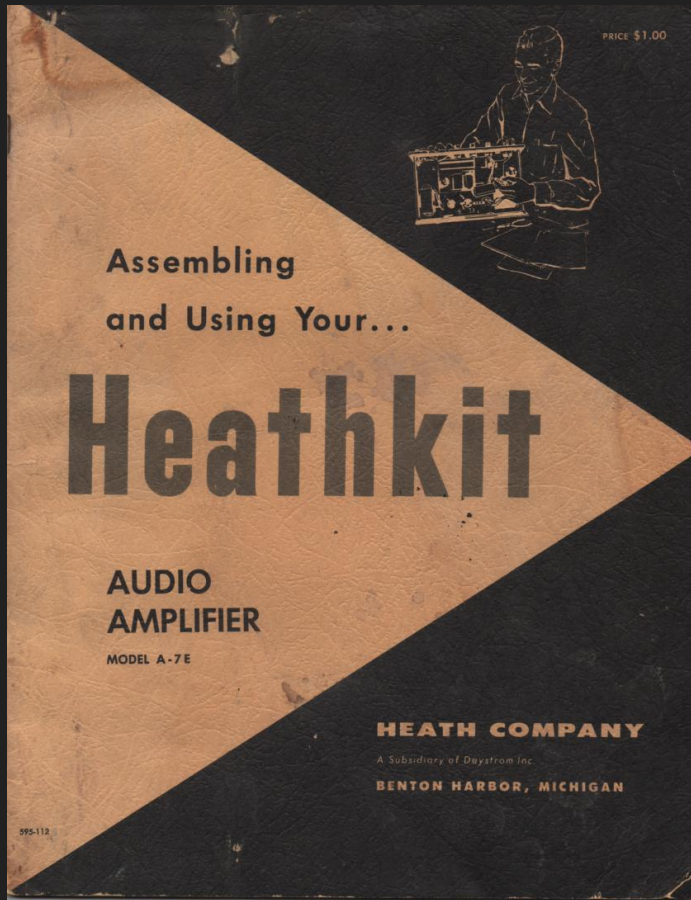


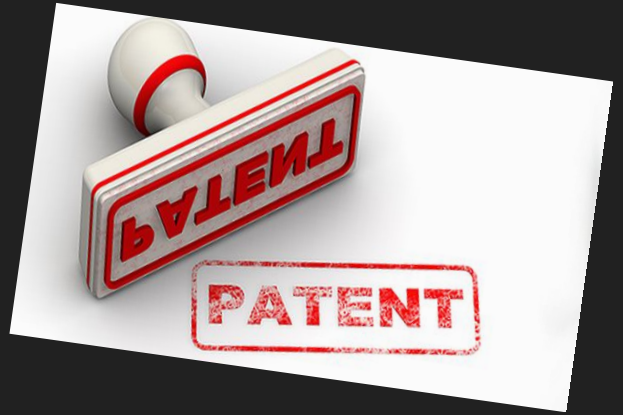
"WOW" GADGET.

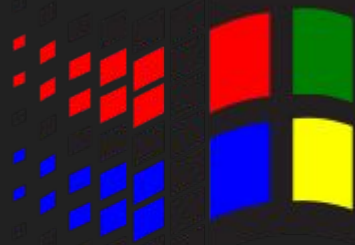
What does it do? We have not been able to determine, but it looks very impressive resting casually on a desk. Appeal learned to friends. \$7.75

DESCRIPTIONS TAKEN FROM PRESS RELEASES • NOTHING HAS BEEN TESTED

wondermark.com







Circulation Desk

File Circulation Help

Check Out Check In Holds/Reserves Fines Renewals CopyStatus Lost Copies RemoteCirc Help

Type or Scan a Barcode: Special Due Date:

Follett Circulation Plus Library Automation System

Patron: Check Out: Renew:

Barcode: Fines Ready: Patron Info:

ID: Fines: Edit Patron:

School:

Patron Type:

Title:

Author:

Barcode: Due Date:

Call Number:

PCHS Library Media Center





ANDROID



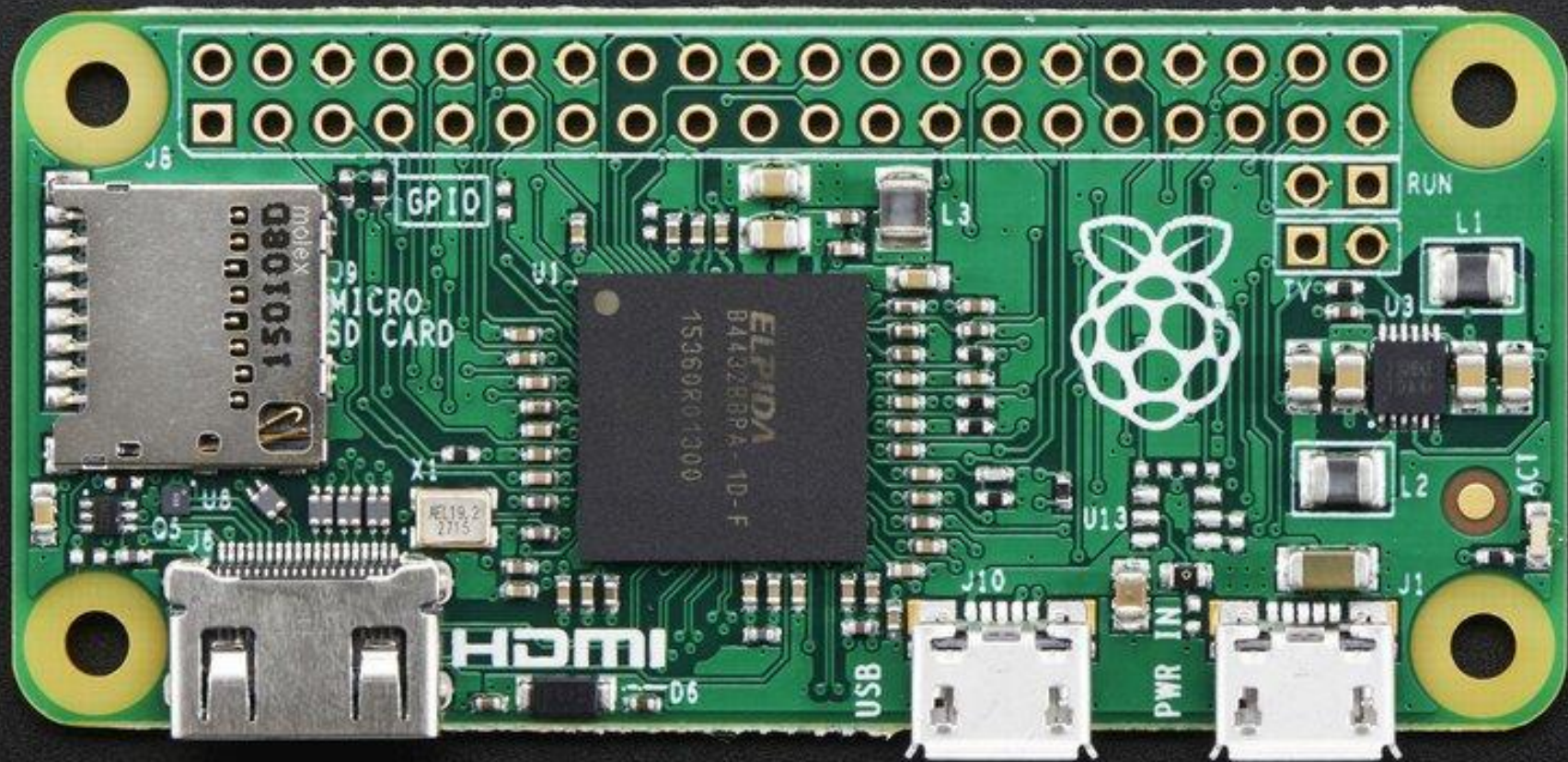
hacker-friendly-sbcs-spreadsheet-170101-v5 : Sheet1

Comparison of 90 open spec, hacker friendly single board computers -- January, 2017

(Note: click [here](#) for the HackerBoards.com article that accompanies this table. It contains brief descriptions of each board plus market analysis.)

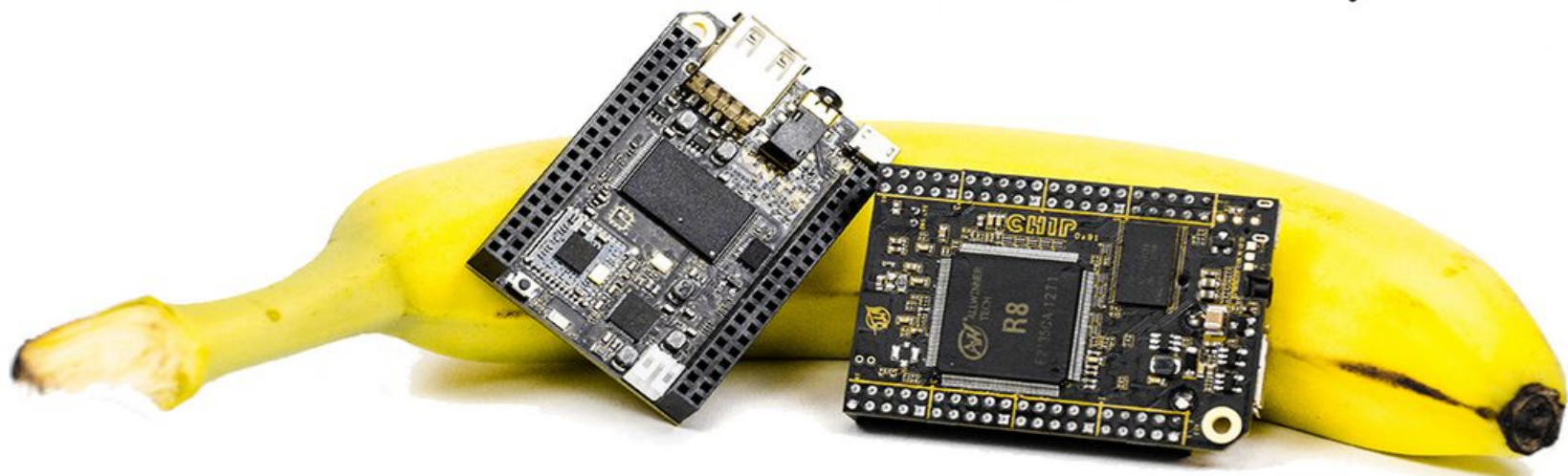
Product	Price (\$)	Vendor	Processor	Cores	3D GPU	MCU	RAM	Storage	LAN	Wireless	HDMI or DP-out	USB ports	Expansion	
86Duino Zero	39	DMP	Vortex86EX	1x x86 @ 300MHz	no	no	128MB	no	Fast	no	no	1	headers	
A20-OlinuXino-Lime2	47	Olimex	Allwinner A20	2x A7 @ 1GHz	Mali-400	no	1GB	Opt. 4GB eMMC; SATA	Fast	no	yes	3	other	Li
A20-OlinuXino-Micro	57	Olimex	Allwinner A20	2x A7 @ 1GHz	Mali-400	no	1GB	opt. 4GB NAND	Fast	no	yes	3	other	Li
A33-OlinuXino-Lime	37	Olimex	Allwinner A33	4x A7 @ 1.2GHz	Mali-400	no	1GB	opt. 4GB NAND	no	no	no	1	dual 40-pin	3.4
Arduino Industrial 101	40	Arduino Srl	Qualcomm AR9331	1x MIPS @ 400MHz	no	ATmega32u4	64MB	no	Fast	WiFi	no	1	Arduino	
Arduino Yún Mini	60	Arduino Srl	Qualcomm AR9331	1x MIPS @ 400MHz	no	ATmega32u4	64MB	no	opt.	WiFi	no	opt.	Arduino	
Arduino Tian	98	Arduino Srl	Qualcomm AR9432	1x MIPS @ 560MHz	no	SAMD21G18	64MB	no	yes	WiFi, BT	no	1	Arduino	
Banana Pi M2 Ultra	46	SinoVoip	Allwinner R40	4x A7	Mali-450 MP2	no	2GB	8GB to 64GB eMMC; SATA	GbE	WiFi, BT	yes	4	Pi 40	Li
Banana Pi M2+	35	SinoVoip	Allwinner H3	4x A7 @ 1.6GHz	Mali-400 MP2	no	1GB	8GB eMMC	GbE	WiFi, BT	yes	2	Pi 40	Li
Banana Pi M3	74	SinoVoip	Allwinner A83T	8x A7 @ 2GHz	PowerVR SGX544 MP1	no	2GB	8GB eMMC, SATA	GbE	WiFi, BT	yes	3	Pi 40	Li
Banana Pi BPI-M64	74	SinoVoip	Allwinner A64	4x A53 @ 1.2GHz	Mali-450 MP2	no	2GB	8GB to 64GB eMMC	GbE	WiFi, BT	yes	4	Pi 40	Li
Banana Pro	48	LeMaker	Allwinner A20	2x A7 @ 1GHz	Mali-400 MP2	no	1GB	SATA	GbE	WiFi, BT	yes	3	Pi 40	Li
BeagleBone Black	48	BeagleBoard.org	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	Fast	no	yes	2	Bbone	Li
BeagleBone Black Wireless	69	BeagleBoard.org; Octavo	TI Sitara AM3358	1x A8 @ 1GHz	SGX530	PRU	512MB	4GB eMMC	no	WiFi, BT	yes	2	Bbone	Li
BeagleBone Green	39	SeeedStudio	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	Fast	no	no	2	Bbone, Grove	Li
BeagleBone Green Wireless	45	SeeedStudio	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	Fast	WiFi, BT	no	5	Bbone, Grove	Li

List of 90 SoC boards

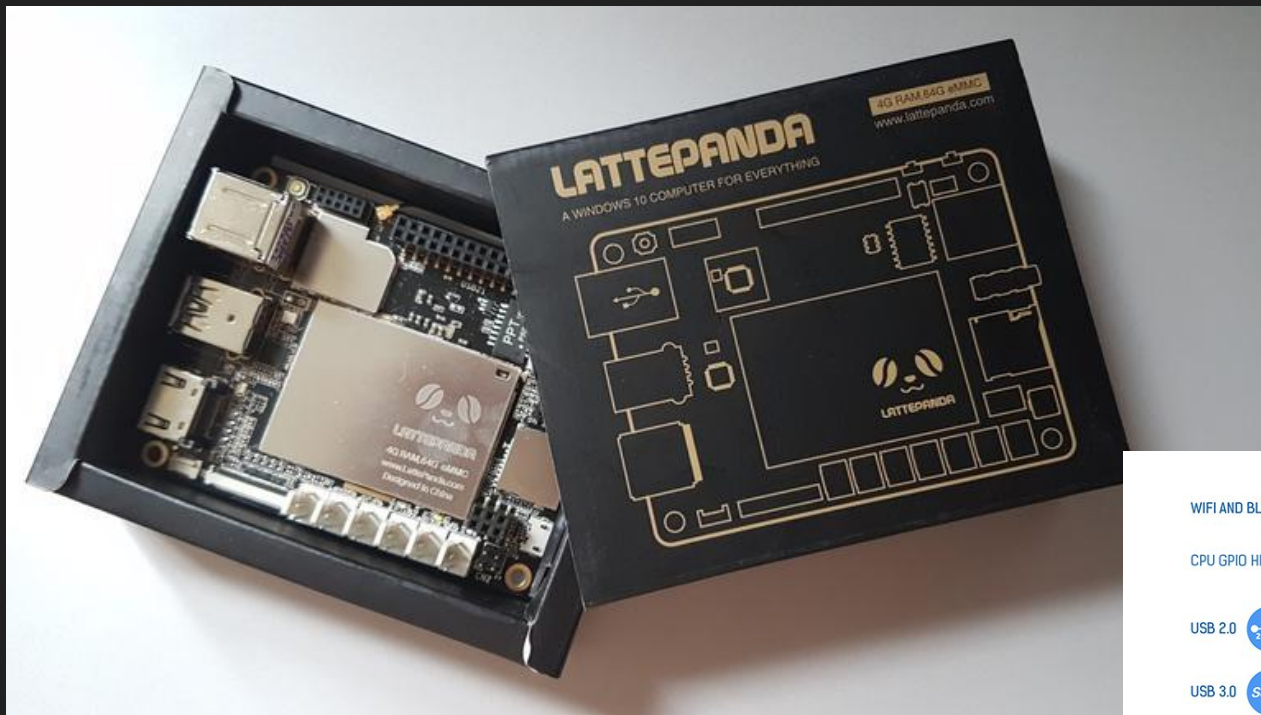


CHIP

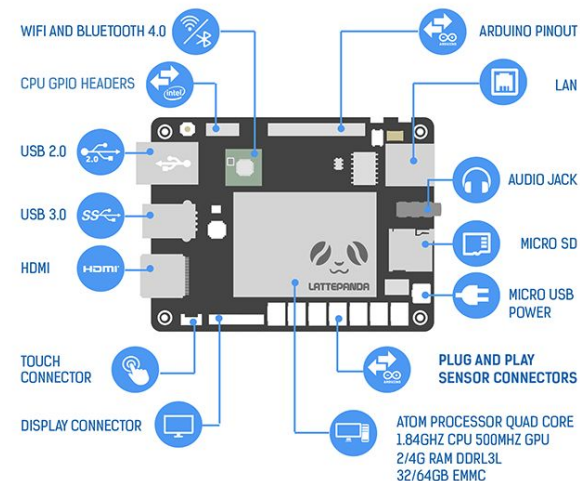
*The World's First
\$9 Computer!*



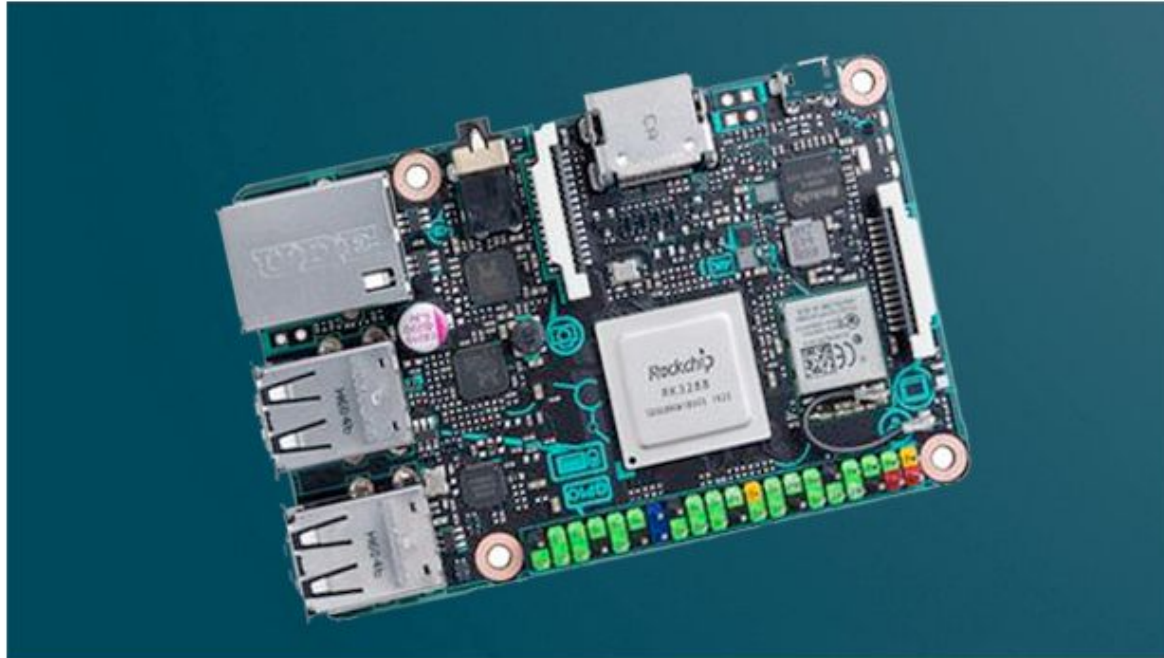
A crowd funded product w/ built in wireless and bluetooth, can run from a battery, composite video output, add \$15 for VGA or \$19 for HDMI add-on card.



LattePanda \$79 or \$119 with Windows 10
Intel x86 base, w/ Arduino support pins

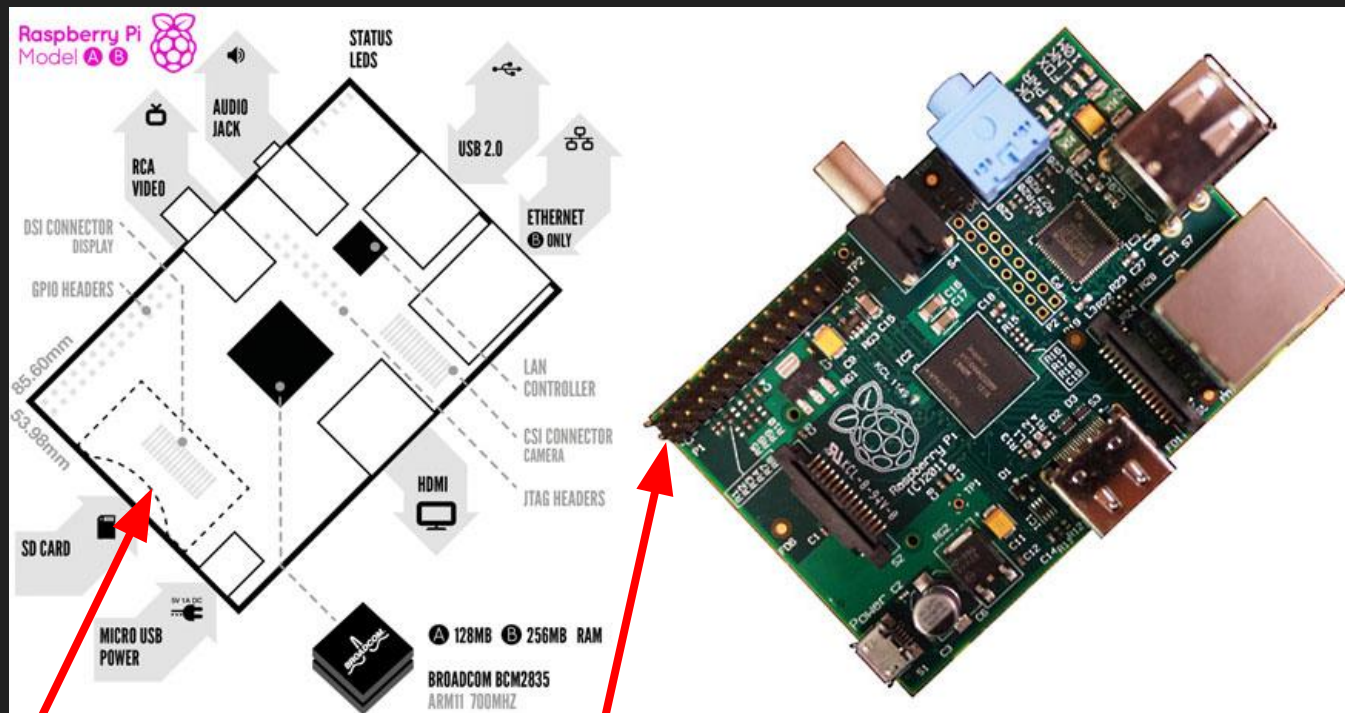


Asus Tinkerboard: Raspberry Pi's new rival



\$ 60

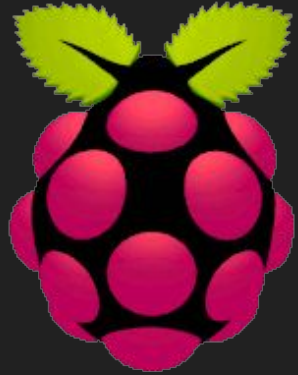
**Released to
US on
1/30/2017**



SD Card (mounts under)
Total of 256 MB RAM

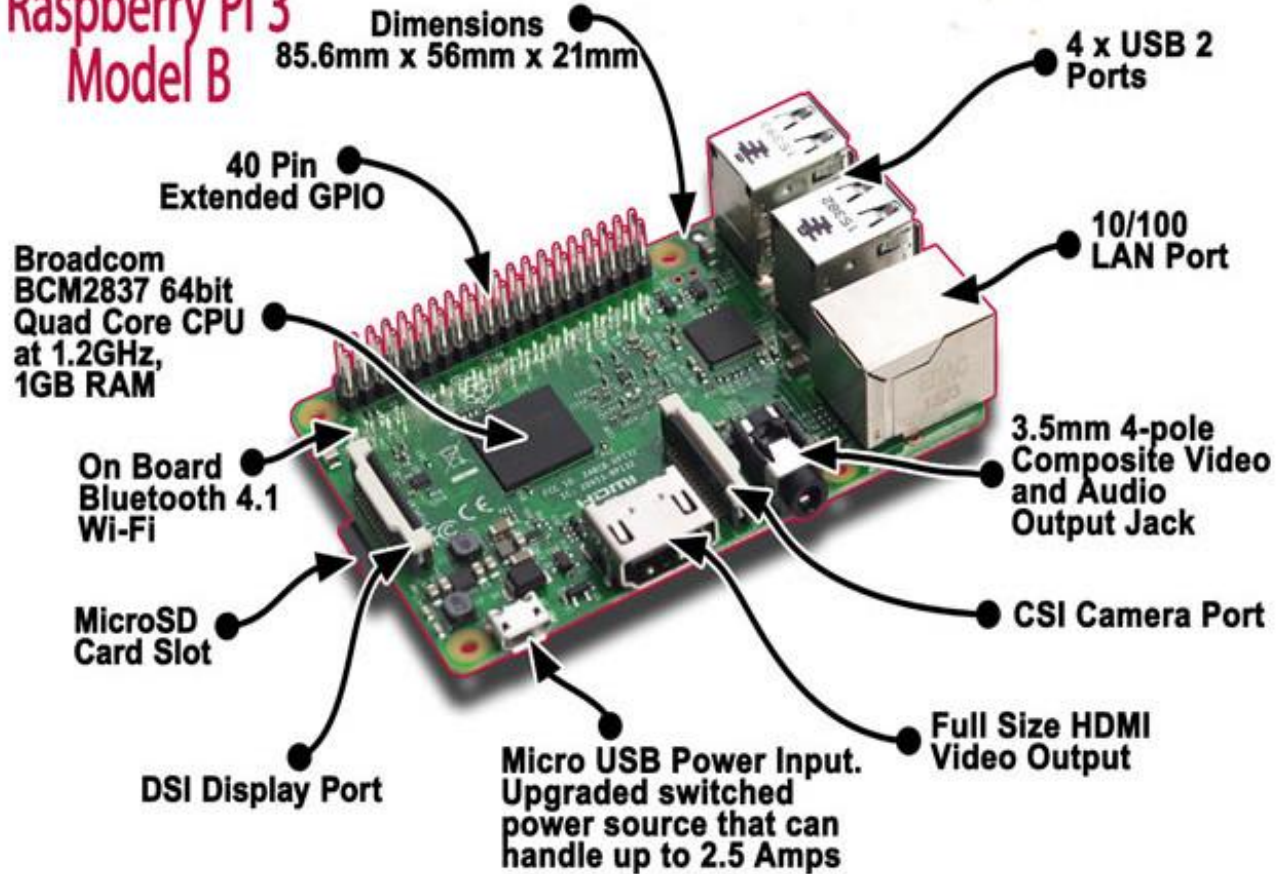
GPIO Headers





**Built in
Wireless
Bluetooth
1 GB RAM**

Raspberry Pi 3 Model B



<http://raspberrypi.org>

[BLOG](#)[DOWNLOADS](#)[COMMUNITY](#)[HELP](#)[FORUMS](#)[EDUCATION](#)

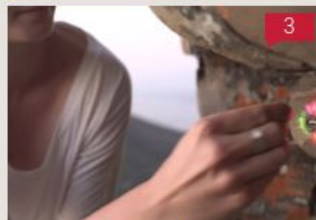
LATEST BLOG POST



SLACK ON THE COMMODORE 64 THANKS TO RASPBERRY PI

Slack client developed for
Commodore 64 uses Raspberry Pi to
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MORE FROM THE BLOG...



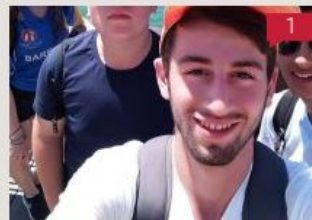
THE NEST: HIDDEN MUSIC ATOP
TABLE MOUNTAIN



NEW ONLINE TRAINING COURSES:
YOUR QUESTIONS ANSWERED



PEEQO - THE GIF BOT



COMMUNITY PROFILE: ZACH
IGIELMAN

<https://raspberrypi.org>

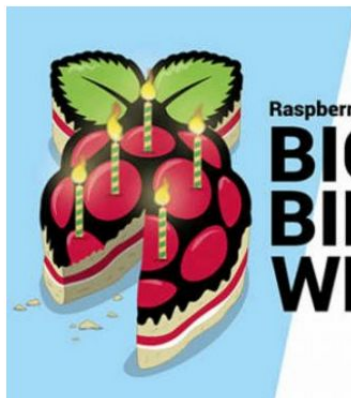


**GEEK**FOLLOW GEEK   

TECH

Here's When You Can Celebrate Raspberry Pi's Birthday

BY BRITTANY VINCENT
12.27.2016 :: 10:30AM EST  MOLOTOVCUPCAKE

     **61**
SHARES

Raspberry Pi

**BIG
BIRTHDAY
WEEKEND**

Saturday 4 March - 10.30am - 6.30pm
Sunday 5 March - 10am - 5.30pm

#PiParty



MORE IN TECH

TECH

12.29.2016 :: 8:30AM EST :: BRITTANY VINCENT

You Can Use This
Operating System and
USB Drive to Revive
Derelict Laptop



TECH

12.28.2016 :: 1:30PM EST :: DANIEL STARKEY

Tesla's Autopilot is So
Good It Can Predict
Crashes, Brake Early



TECH

12.27.2016 :: 9:30AM EST :: DANIEL STARKEY

Google Translate is
Amazing Now, and That
Should Terrify You



TECH

12.27.2016 :: 8:30AM EST :: DANIEL STARKEY

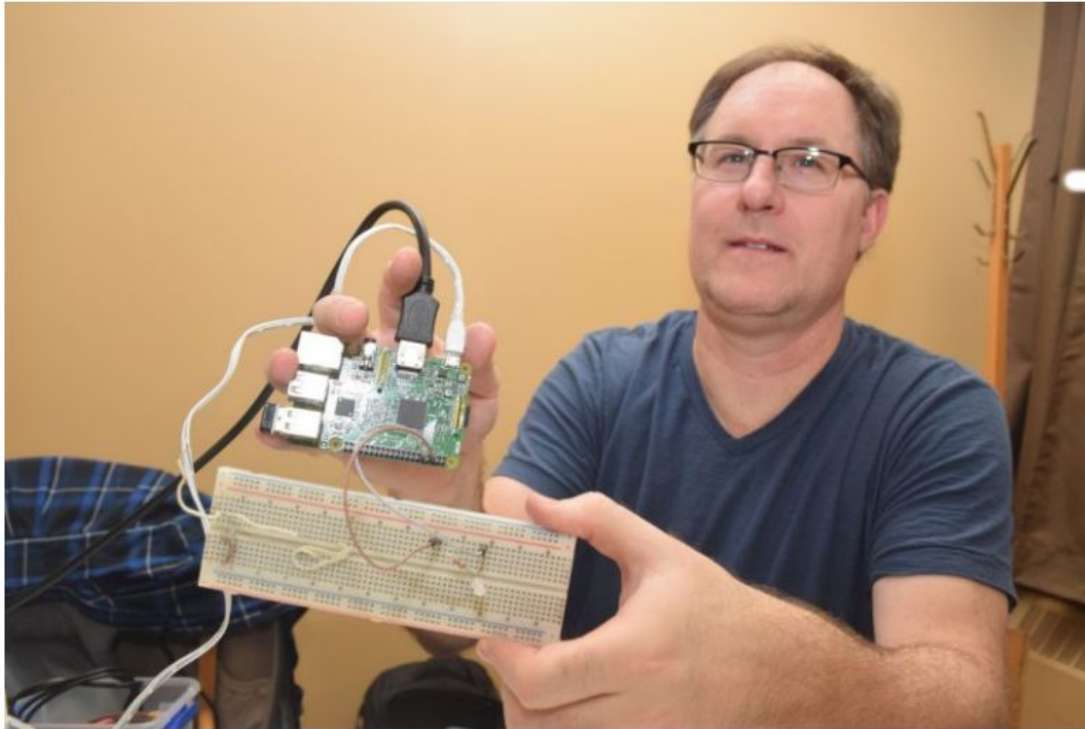
Okay, Maybe the Robot
Apocalypse Will Be a

**March 4 - 5 in England**

Raspberry Pi users start community group

Kevin Adshade kevin.adshade@ngnews.ca

Published on January 8, 2017



Bruce Fleming is pictured with the Raspberry Pi.

©Kevin Adshade

NEW GLASGOW – Bruce Fleming doesn't mind the term 'computer geek.'

Hardware

Raspberry Pi 3b

buy from Amazon or Newark Elec. ~ **\$35**

Power Supply - MicroUSB 5VDC @ 2amp ~ **\$10**

MicroSD Card - 8 or 16 GB ~ **\$10**

USB Keyboard and Mouse

HDMI capable TV or monitor

HDMI cable

WiFi or Ethernet connectivity

Remote & Pi Case - optional

MicroSD on Raspberry Pi2 and Pi3



Kodi



Open Source (free of cost) <http://kodi.tv>
Was formally known as xbmc (x-box media center)

Kodi Versions



Windows: [Installer](#)
[\[help\]](#)



Linux: [Guide](#)
[\[help\]](#)



Mac OS X: [Installer](#)
[\[help\]](#)



Android: [Google Play](#)
or APK Install: [ARM](#) — [x86](#)
[\[help\]](#)



Kodibuntu: [64bit](#) *
[\[help\]](#)



iOS (jailbroken): [.deb file](#)
[\[help/ guide\]](#)



Raspberry Pi: [Guide](#)
[\[help\]](#)



Other devices:
[BSD](#) — [Freescale IMX6](#) — [more](#)



LibreELEC

[WINDOWS 10](#)[WINDOWS PHONE](#)[SURFACE](#)[XBOX](#)[ENTERPRISE](#)[SETTINGS](#)[TIP US](#)[FORUM](#)

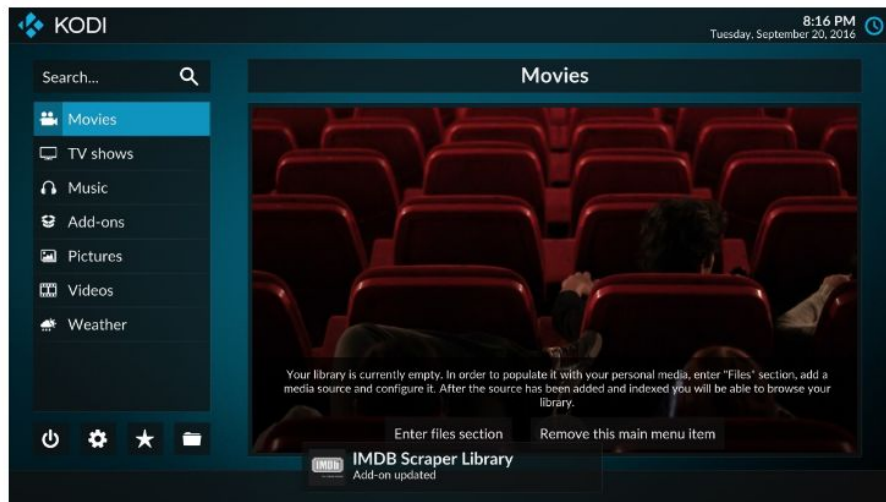
Kodi for Windows nearing final release, updated with new Touch-friendly UI



4

by Surur [@mspoweruser](#)

Dec 30, 2016 at 12:45 GMT



SUPPORT US!

Don't want to see ads? Support us by checking out the following deals from the links below!

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[Get a Surface Pro 4!](#)

[Get the new Xbox One S!](#)

[Get a Microsoft Band 2!](#)

Support us by checking tech recommendations on [Amazon!](#)

MSPoweruser Podcast

A few months ago Kodi posted their iconic Xbox Media Centre-derived media player to the



Kodi 18 Media Center to Be Dubbed "Leia," in Honor of the Late Carrie Fisher

Also, to celebrate 40 years of Star Wars movie saga

Jan 9, 2017 23:29 GMT · By Marius Nestor · Share:

To celebrate 40 years of the Star Wars saga, the Kodi developers announced earlier today the codename of the next major release of their open-source and multiplatform media center.

As many of you probably know from our regular reports, Kodi 17 "Krypton" is currently in heavy development with [a first Release Candidate](#) snapshot out of the door at the end of 2016, but the team was already looking to codename the next major version, Kodi 18. In early December, they asked the community to vote for the Kodi 18 code name, which should have started with the letter L.

**GO**

[BLOG](#)[DOWNLOADS](#)[COMMUNITY](#)[HELP](#)[FORUMS](#)[EDUCATION](#)

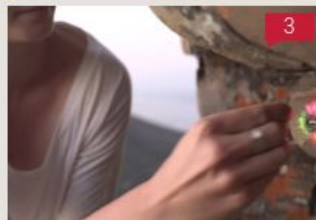
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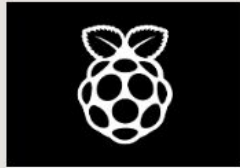
NEW ONLINE TRAINING COURSES: YOUR QUESTIONS ANSWERED



PEEQO – THE GIF BOT



COMMUNITY PROFILE: ZACH IGIELMAN



NOOBS



RASPBIAN

<http://raspberrypi.org>

THIRD PARTY OPERATING SYSTEM IMAGES

Third party images are also available:



UBUNTU MATE



SNAPPY UBUNTU CORE



WINDOWS 10 IOT CORE



OSMC



LIBREELEC



PINET



RISC OS



WEATHER STATION

Software

Use a Windows Laptop to setup the SD Card

NOOBS v2.1.0 (New out of box software)

<https://www.raspberrypi.org/downloads/noobs/>

SD Card Formatter

https://www.sdcard.org/downloads/formatter_4/

qBittorrent

<http://www.qbittorrent.org/>

unZIP software (built into Windows)

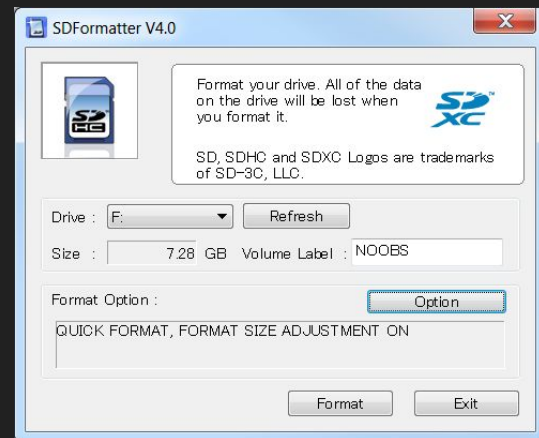


Setup the SD Card on a Windows Laptop

In Windows: (Linux and Mac directions available online)



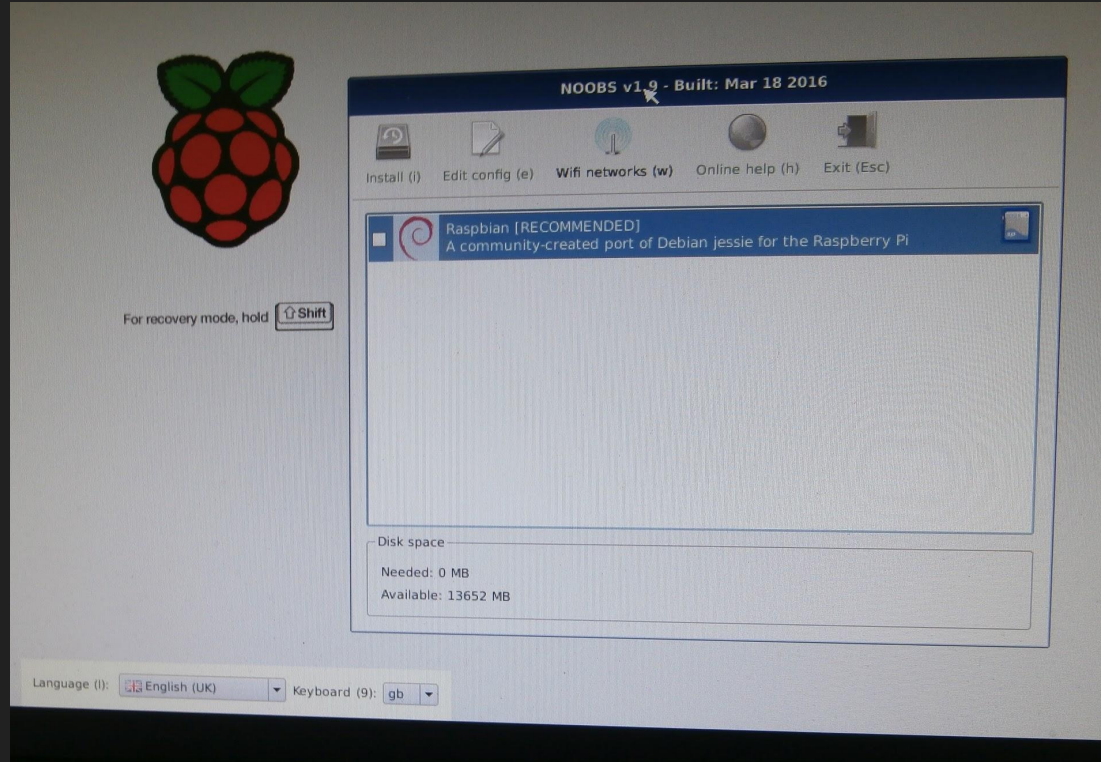
1. Download and install **qBittorrent**
2. Download and install **SD Card Formatter**
3. Download **NOOBS** using **qBittorrent** (10+ minutes)
4. Format MicroSD Card (maybe 5 minutes)
Remove and reinsert the MicroSD card
5. Unzip **NOOBS** (auto opens in Windows)
6. Drag all files from **NOOBS** download folder onto the MicroSD (15+ minutes)
7. Properly eject the MicroSD card



At the Raspberry Pi

1. Plugin the MicroSD card created in Windows
2. Connect HDMI (video) cable
3. Connect analog audio if necessary
4. Connect USB keyboard and mouse
5. Have WiFi login information available
or connect via Ethernet network cable
6. Connect power at the microUSB connector

(this Pi setup takes about 15 minutes)



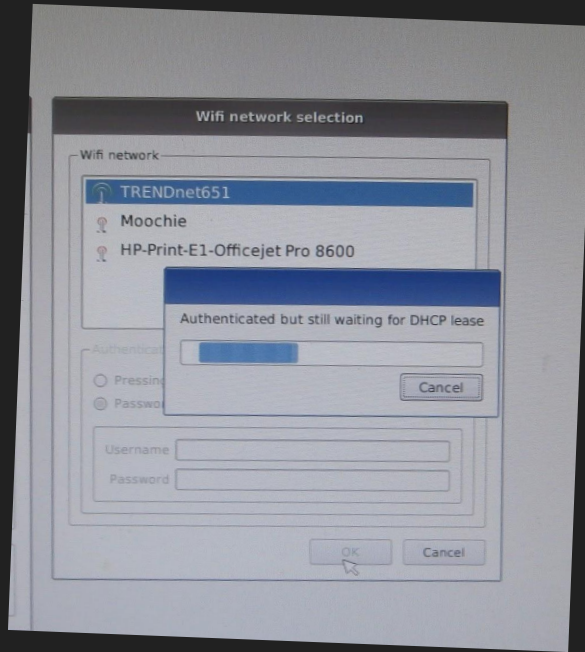
NOOBS Startup

Select language &
keyboard
at the bottom

Setup wireless network
at the top

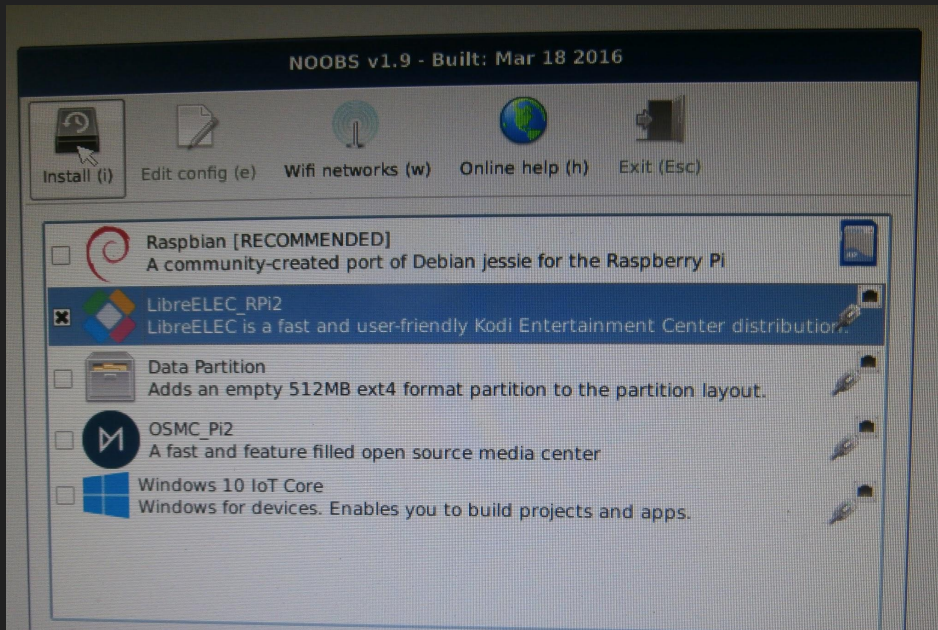
Now select your wireless
and password

Be sure it connects !



Wireless connects

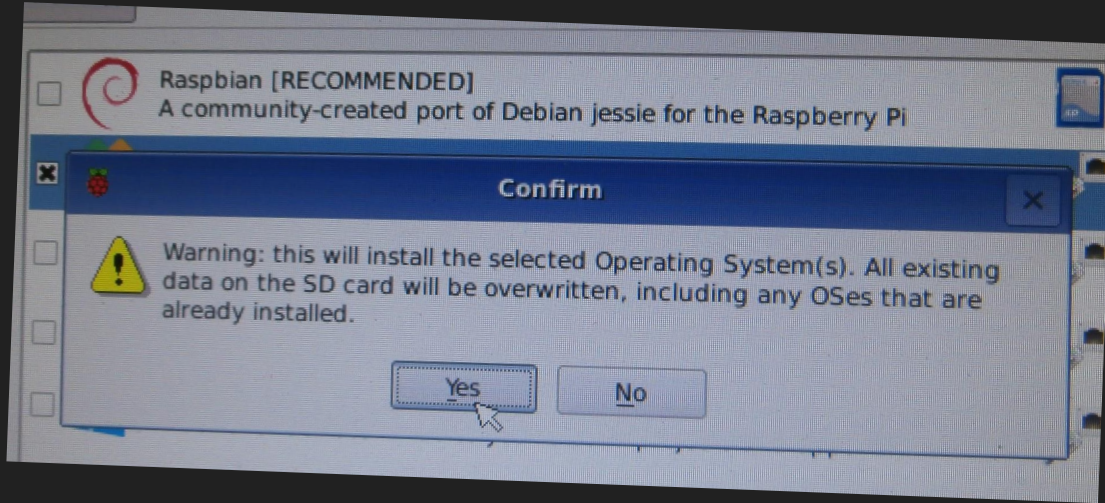
**Now view additional OS
options display**



NOOBS Startup

**Additional OS options
display**

**Select: LibreELEC
Libre / Kodi**



NOOBS Startup

Confirm Yes



LibreELEC
Just enough OS for KODI

LibreELEC supports a range of hardware
so your devices work "out of the box"

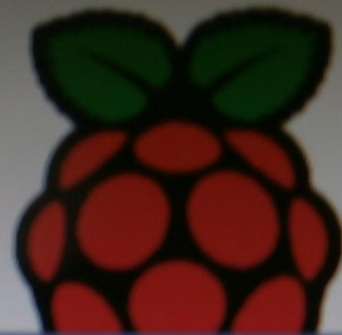
OS updates are automatic

: Downloading and extracting filesystem



3%

4 MB of 140 MB written (0.2 MB/sec)

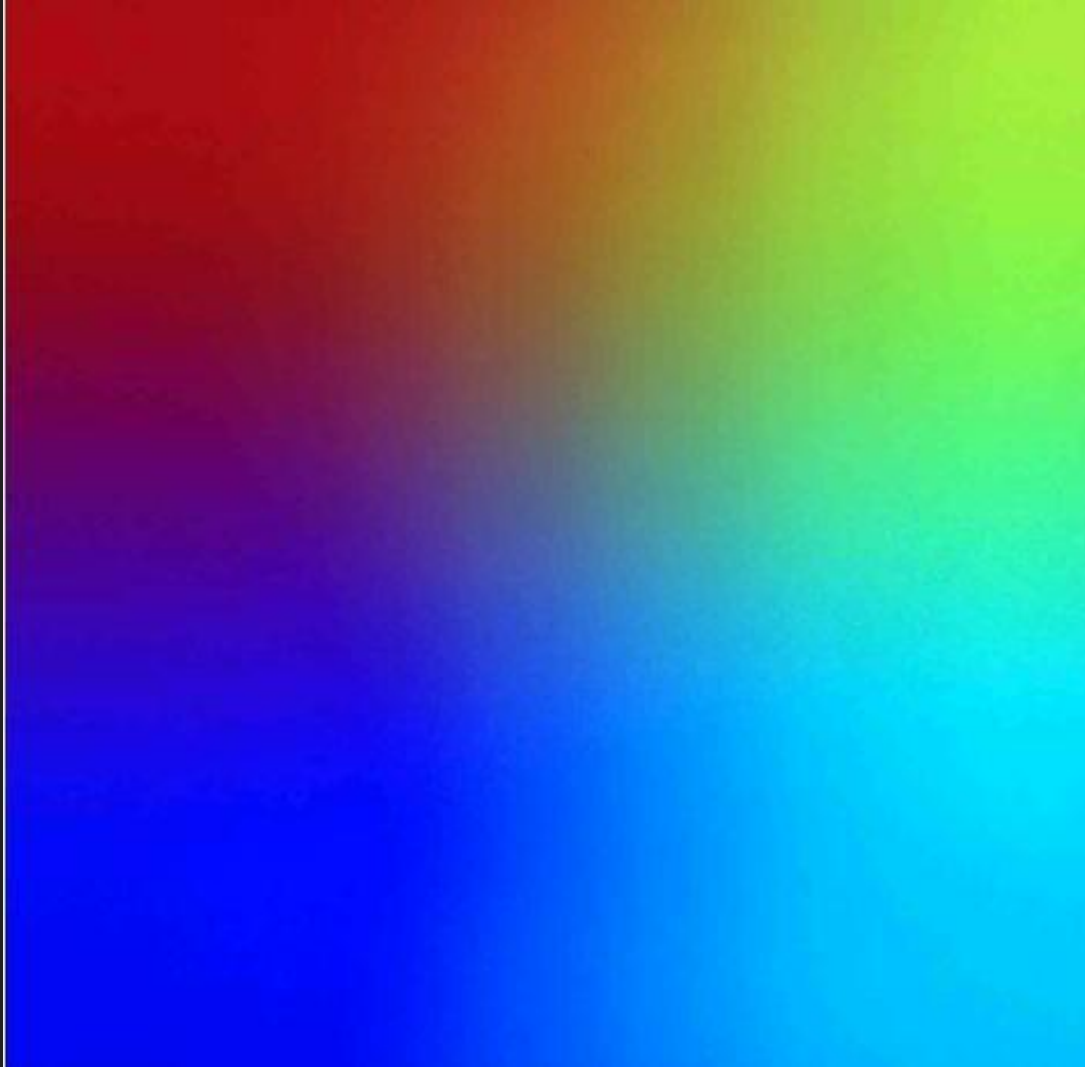


OS(es) installed



OS(es) Installed Successfully

OK





Kodi Splashscreen



8:11 PM
Mon, Sep 1, 2014

PICTURES

VIDEOS

MUSIC

PROGRAMS

Files

Add-ons



XBMC: Kodi 14.0 "Helix" alpha 3 - Some repository skins stats 2 

Kodi Home Display

Kodi boxes



IPTV: Mass Piracy That's Flying Largely Under The Radar

BY ANDY ON NOVEMBER 27, 2016

C: 122

Kodi and its third party 'pirate' addons have been getting an awful lot of press this year but there's a hidden side to streaming that receives much less attention. Enter the world of black-market IPTV, streaming services that provide a TV, sports and movie experience that rival commercial offerings.

Anyone with a Kodi setup understands how it works. Download the software, install a bunch of third party addons, and enjoy TV shows, sports, movies and PPVs, all for free.

While millions have fun doing just that, even the leading experts in Kodi setups acknowledge that they are limited by the content being provided by third parties. Sometimes the quality is good and the service is reliable but at the other extremes, people can spend more time getting stuff to work than actually watching and relaxing.

Are you breaking the law with your new Kodi box? Here's everything you need to know

If you got a new Kodi box for Christmas, here's our guide to the legality of the boxes and what they are used for



BY CHRIS KNIGHT
17:55, 27 DEC 2016 | **UPDATED** 17:56, 27 DEC 2016

NEWS



TYNEMOUTH
Tynemouth 'ghost ships' - we discover where the vessels have gone



NEWCASTLE CROWN COURT
Owen Kerry murder inquiry: Accused make first appearance in front of judge in Newcastle



WALKER
Elderly man pelted with food and racially abused in Walker

A poor choice

A-Box TV

HomeInstructionsProduct InfoContactPurchaseQ & A



A-Box TV
\$349.00
Keyboards \$20.00
aboxtv2014@gmail.com

<http://A-BOXTV.com>

CUT YOUR CABLE TODAY!

SkyStream X5 Android TV Box

Unlimited Streaming with NO monthly fees, the strongest WiFi, and HD Antenna integration all in one Android TV Box. Meet the SkyStream X5 Android TV Box, the most capable, comprehensive cable-killing box ever created. No longer are you limited by what one box can do. The X5 takes the place of three separate devices and even allows you to record live TV. This blazing fast Streaming Media Player does everything you could want in one device! Now this is NEXT LEVEL streaming!

\$ 179.99



<http://skystreamx.com>

NOW THIS IS STREAMING!

SkyStream X4 Android TV Box

The SkyStream X4 Android TV Box is fully loaded with add-ons that will give you hours of endless streaming of your favorite movies, TV shows and sporting events through our pre-programmed KODI 16.1 add-on or by downloading your favorite streaming services apps through the Google Play Store! Gone are the days of cable subscriptions - cut the cord and start saving today!

\$ 114.99

ADD TO CART



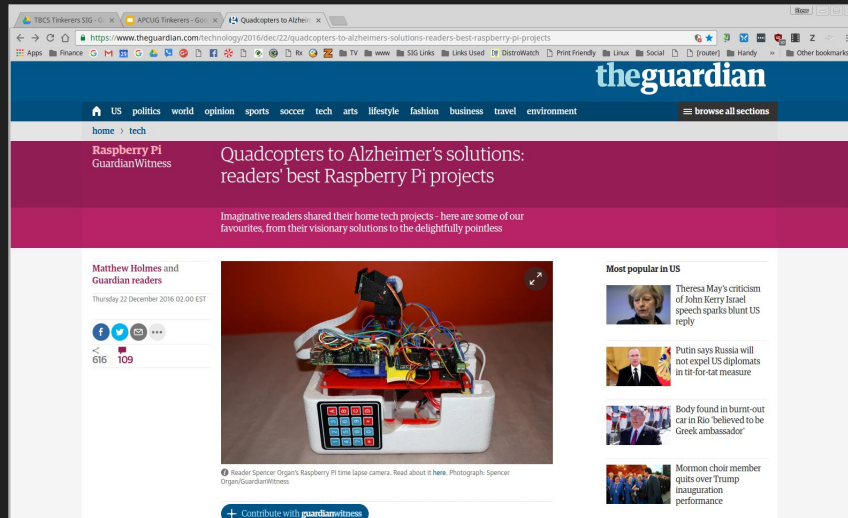
<http://skystreamx.com>

Break



Huge numbers of Pi projects online

- <https://www.theguardian.com/technology/2016/dec/22/quadcopters-to-alzheimers-solutions-readers-best-raspberry-pi-projects>
- <https://opensource.com/article/16/12/yearbook-8-fun-raspberry-pi-projects>



END
Break



Digital Signage



HAMBURGER		FISH & CHICKEN		SIDES & DRINKS	
	Burger #1 \$5.00		Chicken #1 \$5.00		
	Burger #2 \$6.00		Chicken #2 \$6.00		
	Burger #3 \$7.00		Chicken #3 \$7.00		
	Burger #4 \$8.00		Chicken #4 \$8.00		
	Burger #5 \$9.00		Chicken #5 \$9.00		
			Fish #1 \$5.00		
			Fish #2 \$5.00		
MAKE IT A COMBO COMBO INCLUDES SMALL DRINK & SMALL FRIES GO MEDIUM OR LARGE (FOR AN ADDITIONAL COST)					

Hotels
Churches
Colleges
Medical /
Hospitals
Stores
Restaurants
Highway
Billboards

EVENTS **JUNE 26**

9:00 AM
INTRODUCTION
10:00 AM
APPS LAUNCH
11:30 AM
TEA BREAK
12:00 PM
APPS FEATURES
13:00 PM
LUNCH BREAK
14:00 PM
PRODUCT DEMONSTRATION
15:00 PM
TEA BREAK
16:00 PM
Q&A

WWW.MVVUSA.COM

UPSTATE NEW YORK

EVENT LOCATION
THE PINE STATION
1000 PINE STATION
ROCHESTER, NY 14620
UNIVERSITY SQUARE

TRAVEL TIME
ROCHESTER TO PINE STATION: 45 MINS.
PINE STATION TO TORONTO: 2 HRS.
TORONTO TO PINE STATION: 2 HRS.

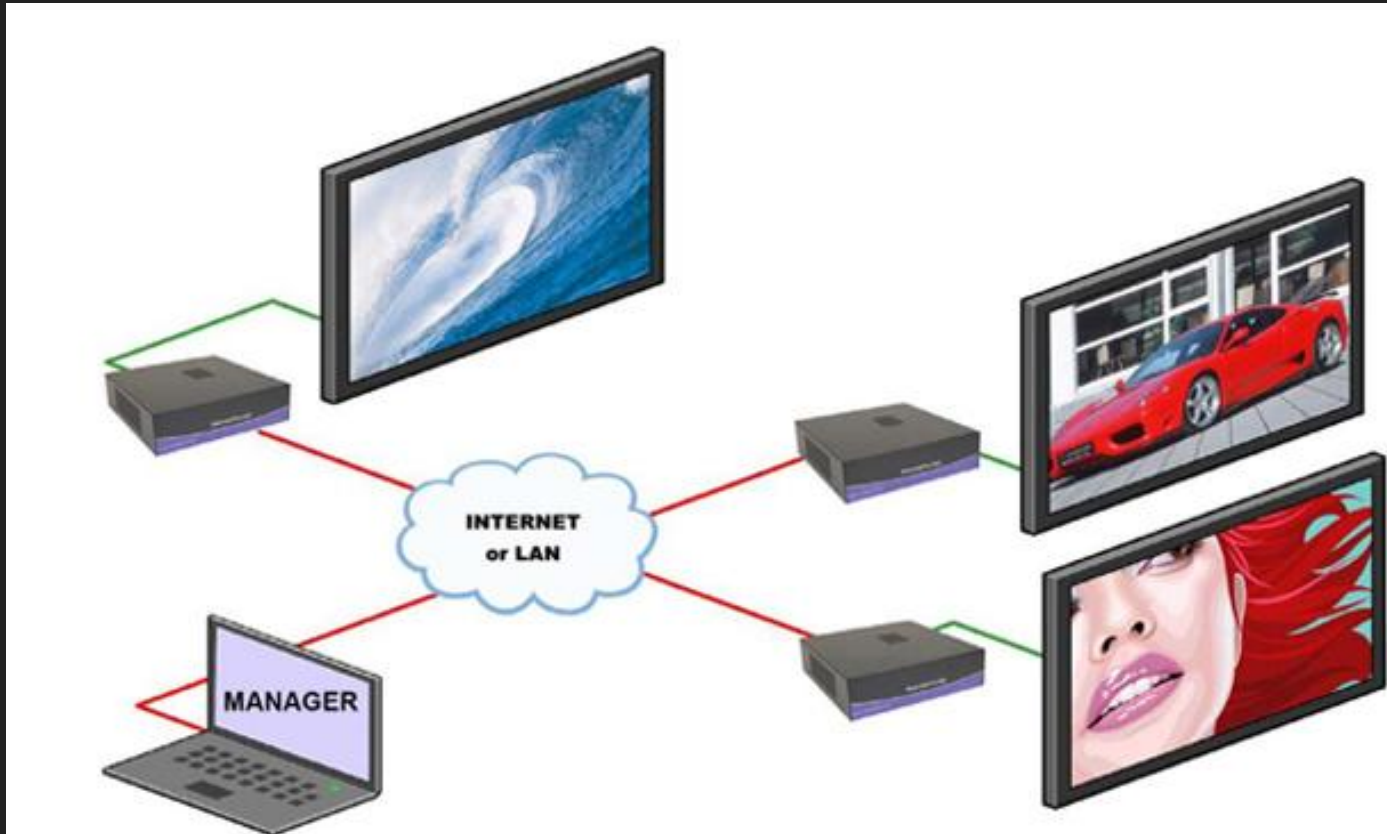
AVG. TEMPERATURE
HIGH 81° F / LOW 55° F

WHAT'S INCLUDED
T-SHIRT HEADBAND BEER

MIX FORECAST
MIX TYPE: SOL. THICK MUD
AVG PRECIPITATION: 2.0 IN.

JULY 12 & 13, 2014
WEDNESDAY
THURSDAY

Digital signage block diagram



- Hi-Res Display
- Media Player
- Server (with programed media)
- Network

Vertical or Horizontal Displays



A vertical digital display with a blue background and a faint image of a construction site. The text is white and yellow. The date 'JUNE 26' is in a yellow box at the top right. The word 'EVENTS' is in large white letters. Below it is a list of events with times. At the bottom is the website 'WWW.MVIXUSA.COM'.

JUNE 26

EVENTS

9:00 AM
INTRODUCTION
10:00 AM
APPS LAUNCH
11:30 AM
TEA BREAK
12:00 PM
APPS FEATURES
13:00 PM
LUNCH BREAK
14:00 PM
PRODUCT EVALUATION
15:00 PM
TEA BREAK
16:00 PM
Q&A

WWW.MVIXUSA.COM



A horizontal digital display with a blue background and a faint image of the Statue of Liberty. The text is white and yellow. The title 'UPSTATE NEW YORK' is in large white letters. Below it is a list of event details. At the bottom right is a yellow circle with the text 'REGISTER SUNDAY'.

UPSTATE NEW YORK

EVENT LOCATION
TALL PINES ATV PARK
1812 JONES ROAD
ANDOVER, NY 14806
UNITED STATES

TRAVEL TIME
ROCHESTER: 1 HR., 45 MINS.
BUFFALO: 2 HRS.
TORONTO (CAN): 3 HRS., 30 MINS.

AVG. TEMPERATURE
HIGH 81° F / LOW 56° F

WHAT'S INCLUDED
T-SHIRT HEADBAND BEER

MUD FORECAST
MUD TYPE: SOIL, THICK MUD
AVG PRECIPITATION: 2 IN./MO.

JULY 12 & 13, 2014

REGISTER SUNDAY

My Ideal Digital Display



- Pictures (member of the month or birthdays)
- Text
- Calendar upcoming meetings
- Date/Time
- RSS feed for streaming news & weather

Literarily 100's of digital signage providers:

- Buy their branded media player boxes and displays.
- Sign-up for a monthly fee.
- You produce your own content online using their templates, schedules and logs.
(this is not as simple as WordPress webpage design)
- Graphic artists are available to assist you for additional fees.

Fees were excessive to our non-profit needs so I chose an alternate way !



MK808B PLUS

Amlogic M805 Quad-Core 1.5G
RAM 1G+ROM 8G



MK808B PLUS

Stew's Cheap Digital Signage

Android Box \$35
+ Dropbox
+ Dropsync
+ Video Kiosk \$15



With this Android solution I can update the signage from afar,
but I cannot add a Date/Time stamp or an RSS news feed.

Still researching some lesser
known Open Source solutions:

- xibo (an open source signage solution)
- piSignage
- Pi Presents

=== VIDEO CREDITS ===

Text on photos: <http://addtext.com>

Animation: Imagination (Linux)
<http://imagination.sourceforge.net>

Convert to MP4: Handbrake (Linux)
<https://handbrake.fr>



Internet of Things IoT



The Internet of things (stylised Internet of Things or IoT) is the internetworking of physical devices, vehicles (also referred to as "connected devices" and "smart devices"), buildings, and other items embedded with electronics, software, sensors, actuators, and network connectivity that enable these objects to collect and exchange data. The IoT allows objects to be sensed and/or controlled remotely across existing network infrastructure, creating opportunities for more direct integration of the physical world into computer-based systems, and resulting in improved efficiency, accuracy and economic benefit.

https://en.wikipedia.org/wiki/Internet_of_things





SNAPPY UBUNTU CORE



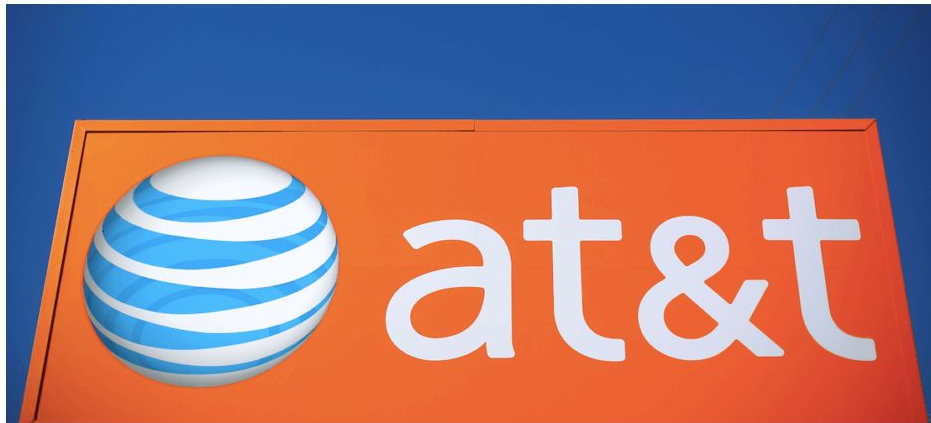
WINDOWS 10 IOT CORE

Raspberry Pi

- Snappy Ubuntu Core
- Windows 10 IoT Core

AT&T launches Internet of Things starter kits for AWS and Raspberry Pi

KEN YEUNG @THEKENYEUNG JANUARY 4, 2017 3:30 PM



Google Daydream: Virtual reality headset



Google initial introduction into VR was with its low cost cardboard product that allowed anyone in the world with a smartphone to experience VR. The Daydream View headset builds on that approach and address some of the known issues with



Buy



Video



Website

Lyric: T5 wi-fi thermostat



The Lyric T5 adds to the ever growing list of connected thermostats offered by Honeywell. The T5 has all the features you would expect from a connected thermostat such setting the temperature when you arrive home and being



Buy



Video

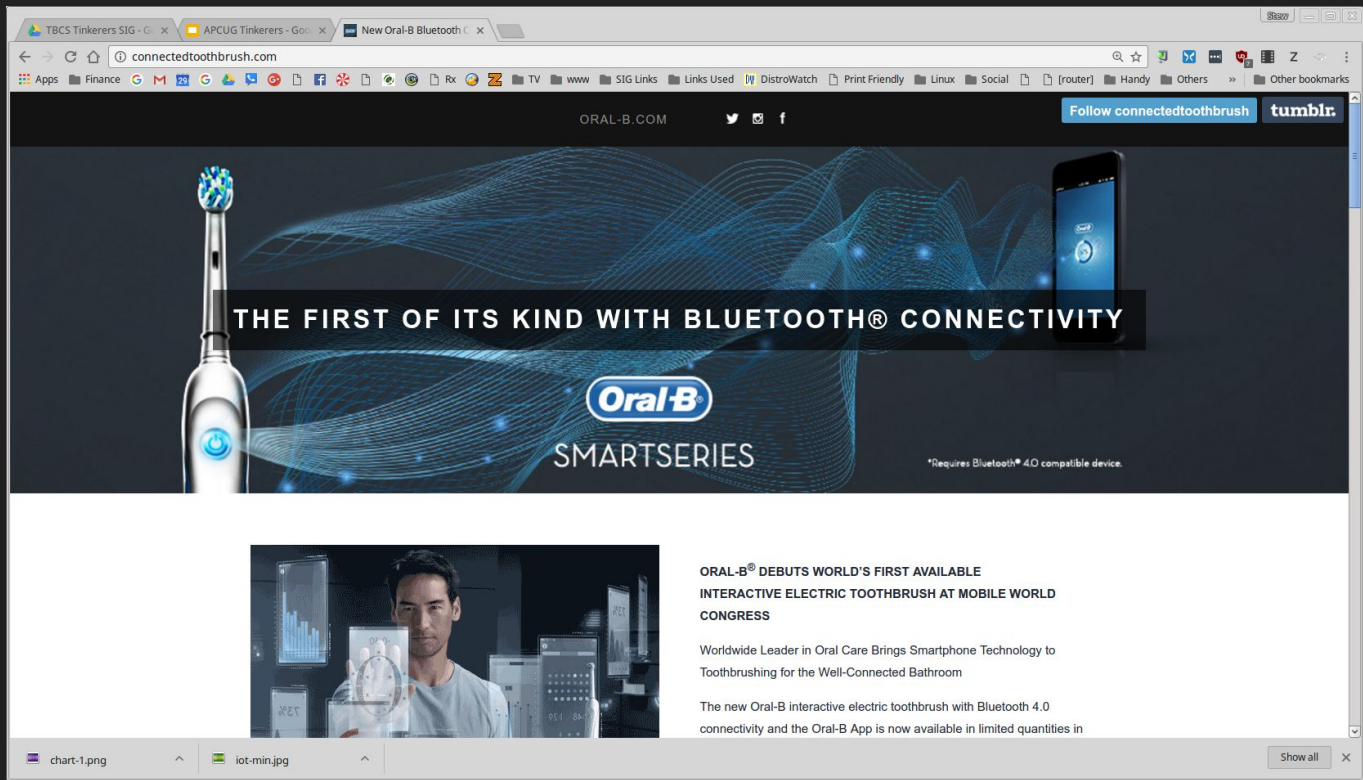


Website

Talkies: A new way to chat with kids

Google Wifi: Cover your home with wifi





3 MINUTE READ | TECHNOLOGY

After Years Of Warnings, Internet Of Things Devices To Blame For Big Internet Attack

Hundreds of thousands of cameras, routers, and DVRs have been hijacked by malware for use in massive denial of service attacks.



chart-1.png

iot-min.jpg

10/21/2016

"Unfortunately, it is difficult for a user to secure their IoT devices themselves, as most devices do not provide a secure mode of operation,"



<https://www.fastcompany.com/3064904/after-years-of-warnings-internet-of-things-devices-to-blame-for-big-internet-attack>

Here Is How to Fend Off a Hijacking of Home Devices

Tech Fix

By BRIAN X. CHEN FEB. 1, 2017



Minh Uong/The New York Times

MODERN homes today are getting internet-connected light bulbs, thermostats, TVs and speakers. So with a simple voice command or the touch of a button on our smartphones, we can set the temperature, turn on a light or prepare the TV to record a program.

What could go wrong?

A lot more than most people are prepared for, it turns out. If one of these devices gets hijacked, hackers could potentially snoop around for sensitive data like financial or health information. Or they could use a network of compromised devices to perform a widespread [attack that takes down major websites](#), which is what happened last October.

The good news is that so far, online attacks on home devices are relatively uncommon. Only 16 percent of American consumers said they were victims

Strong passwords

Setup 2 Home networks

- **computers**
- **other devices**

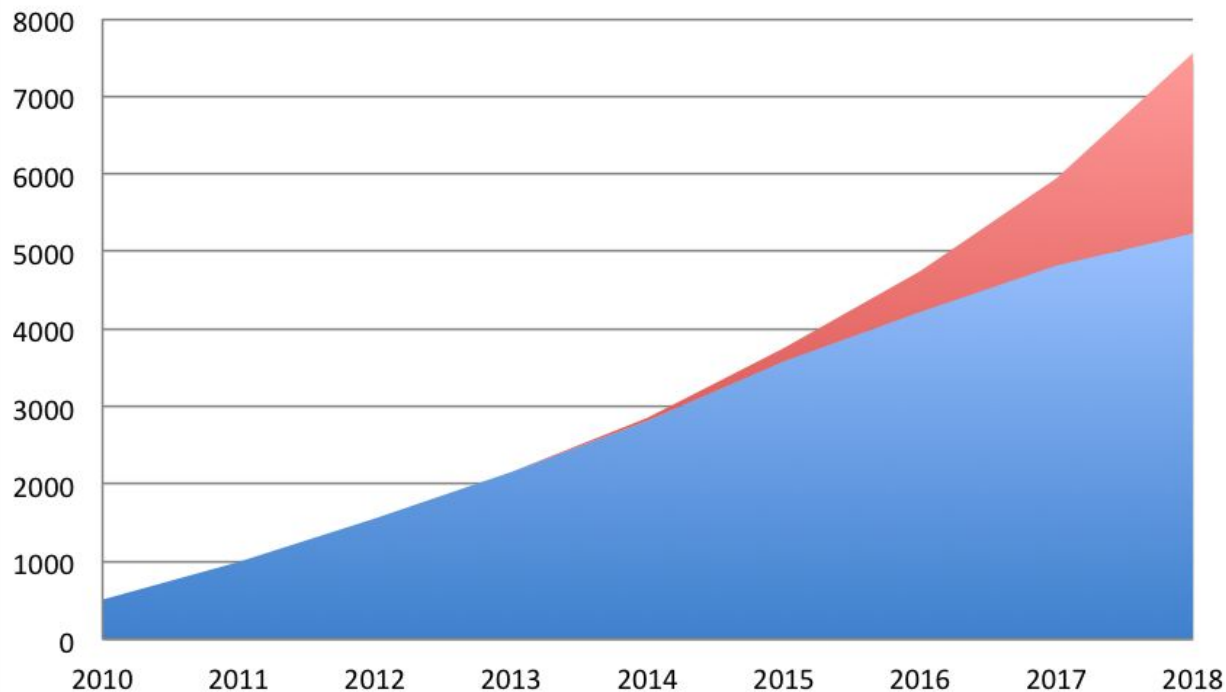
Use the GUEST network in most modern routers

- **separate or different id/pass**

IoT Node Installed Base by Year

M units

Source: Gartner, Strategy Analytics, Cisco, IDC, ABI, Business Insider



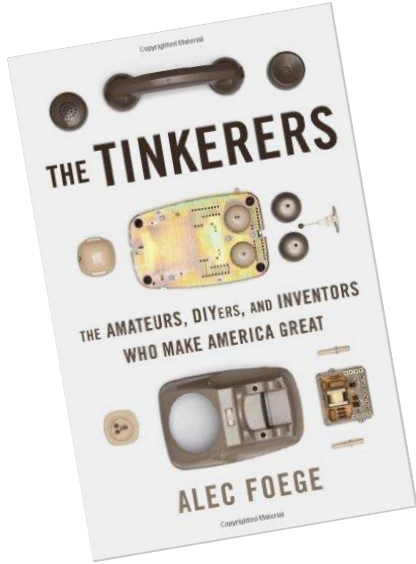
■ Secure Nodes
■ Insecure nodes



Homeland Security warns that certain heart devices can be hacked



Tinkerer Links



Book:

[The Tinkerers:](#)

[The Amateurs, DIYers, and Inventors Who Make America Great](#)

Commercial Kodi Products:

[A-Box TV](#)

[Skystream X4 and X5](#)

Hardware:

[Kodi](#)

[Raspberry Pi 3b](#)

Software:

[NOOBS \(full\)](#)

[SD Card Formatter](#)

[µTorrent](#)

Andeoid Display Device

[A better Amazon device for \\$39](#)

Raspberry Pi Hardware List Links

Raspberry Pi 3b

- <https://www.amazon.com/Raspberry-Pi-RASP-PI-3-Model-Motherboard/dp/B01CD5VC92>
- <http://www.newark.com/raspberry-pi/raspberrypi3-modb-1gb/sbc-raspberry-pi-3-mod-b-1gb-ram/dp/77Y6520>
- Kit with Power Supply and more:
<https://www.amazon.com/CanaKit-Raspberry-Micro-Supply-Listed/dp/B01C6FFNY4>

5VDC, 2.5a MicroUSB Power Supply

- https://www.amazon.com/gp/product/B01CWO9TX0/ref=od_aui_detailpages00?ie=UTF8&psc=1
- <http://www.newark.com/stontronics/t5875dv/psu-raspberry-pi-5v-2-5a-multi/dp/77Y6535>

16GB MicroSD Card

- https://www.amazon.com/Kingston-Digital-microSDHC-SDC4-16GBET/dp/B00DYQYLQQ/ref=pd_lpo_147_lpt_3?ie=UTF8&psc=1&refRID=TY9J4TZW13WADGWXSEGW
- <https://www.amazon.com/Sandisk-MicroSDHC-Memory-RETAIL-PACKAGE/dp/B001F7AJKI>
- <https://www.amazon.com/SanDisk-SDSDQM016GB35A-16GB-microSD-Card/dp/B004KSMXVM>
- A Preloaded MicroSD Card with NOOBS software:
<https://www.amazon.com/Raspberry-Pi-Preloaded-NOOBS-Card/dp/B00ENPQ1GK>

Partial List of Raspberry Pi Links

Interesting Raspberry Pi Links:

- [Raspberry Pi - Teach, Learn, and Make with Raspberry Pi](#)
- [The Beginner's Guide to the Raspberry Pi](#)
- [Getting started with Raspberry Pi — PaulStamatiou.com](#)
- [Raspberry Pi 3 Model B review | IT PRO](#)
- [Raspberry Pi Zero PaPiRus E-Paper Display - Geeky Gadgets](#)
- [70+ Raspberry Pi alternatives in one convenient list - Liliputing](#)
- [FullPageOS Automatically Boots Your Raspberry Pi Into a Full Page Web Kiosk](#)
- [Why I want official Android support for the Raspberry Pi - CNET](#)
- [Watch live American IV](#)
- [RaspAnd 6.0.1 \(Marshmallow\) for Raspberry Pi 3 and Pi 2 Build 160625 with GAPPS, Wifi and Bluetooth working | RaspEX for Raspberry Pi 3 and Pi 2](#)
- [Raspberry Pi AI vs USAF colonel: Guess who wins in sim dogfight? | ZDNet](#)
- [June Another Great Month for the Raspberry Pi | FOSS Force](#)
- [IoT and Raspberry Pi: Great things in small packages](#)
- [TOP BEST WORKING KODI Video Add-ons July 2016 | WirelessHack](#)
- [Kodi Raspberry Pi case completes the media center equation - SlashGear](#)

Questions ?

Stew Bottorf

Tampa Bay Computer Society

sbottorf@gmail.com

<http://fossig.com>



An International
Association of Technology
& Computer User Groups



ANDROID

Trendy ideas from a proud Tinkerer !

SoC devices:

Raspberry Pi

KODI Media Player

Android and Pi

Digital Signage

I o T

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<http://fossig.com>