



# MCCC News



Fort Worth

July 2019

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## Raspberry Pi 4 Your New Desktop?

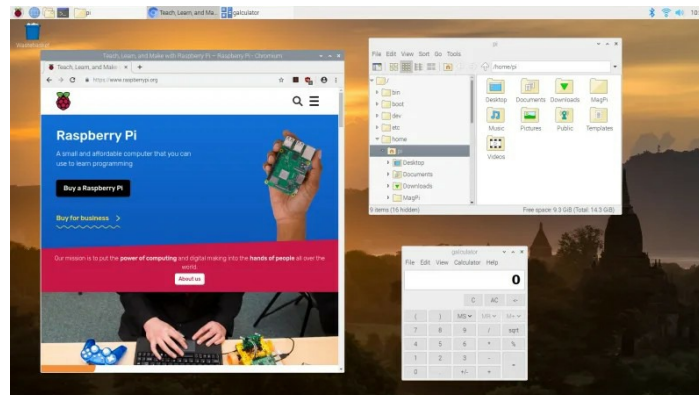
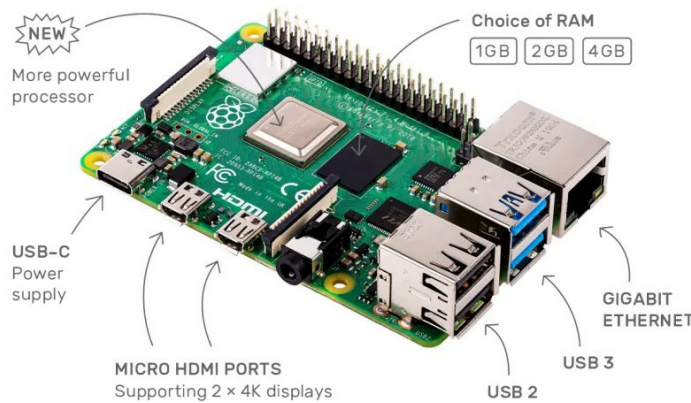
The New Raspberry Pi Is Basically a \$35 Desktop Computer

It's rare to come across a bespoke gadget or a cleverly hacked device that doesn't have a tiny Raspberry Pi inside it. It's long been one of the easiest and cheapest ways to power a custom creation, but the new Raspberry Pi, announced earlier today, packs significant upgrades that could let it finally pass as an incredibly cheap desktop computer.

That's not to say you should be kicking yourself for spending \$1,000+ on a new desktop workstation. At \$35, the new Raspberry Pi 4 is the last thing you'll want to rely on for tasks like Photoshop, video editing, or gaming. But it's now packing a Broadcom 1.5 GHz ARM Cortex-A72 quad-core processor and the option to step up from 1GB of faster LPDDR4 RAM to 2GB for \$45, or 4GB for \$55, which should go a long way to making the Pi 4 more viable as a web browsing and email machine straight out of the box.

The Raspberry Pi 3's standard sized HDMI port has been upgraded to a

pair of micro HDMI ports on the Pi 4, allowing the tiny computer to power a pair of 4K displays at 30 frames per second, or a single 4K display at 60 frames per second, thanks to the board now adopting developer Eric Anholt's Mesa V3D graphics driver. Onboard you'll also find a pair of USB 2.0 ports and a pair of USB 3.0 ports, but microUSB is nowhere to be seen. It's been re-



placed with a power-only USB-C port, adding an extra 500 mA of juice. On the wireless front, the Raspberry Pi 4's Bluetooth has been upgraded to the 5.0 standard, and WiFi now supports dual-band 802.11ac.

Originally designed as both a tool for tinkerers and those wanting to learn more about how computers work, the Raspberry Pi has become an essential tool for industrial applications, according to the company. The latest iteration of the hardware has many upgrades that have come at the request of business customers specifically, including improved I/O speeds across the

board. But in an interview with the Next Web, Raspberry Pi founder Eben Upton promises that education is still part of the company's focus. "While our sales into education are smaller than into industry, we still estimate we sold over 1 million units into that market in 2018 alone," he claimed. Upton also believes, "What's changed with Raspberry Pi 4 is that in addition to being a device for learning about computing, it's also much more suitable than its predecessors for use as a general-purpose classroom computer."

To that end, the Raspberry Pi 4 will also include some welcome operating

system upgrades that will be based on the upcoming release of Debian 10 Buster. The polished UI should be less intimidating to those already familiar with commercial OS products like Windows and MacOS, and that also goes for the included

applications like the Chrome 74 web browser.

As the brains powering your next highly customized smart home upgrade, the Raspberry Pi 4 seems like an easy choice. It remains to be seen, however, how viable the hardware will be as a basic desktop machine (will it be able to run Windows 10 S like other barebones systems?), but the updated specs seem to indicate that the Pi might have finally graduated from being a tool for just hackers, hobbyists, and tinkerers.

...<https://gizmodo.com/the-new-raspberry-pi-is-basically-a-35-desktop-compute-1835804060>

## C64 Clone With Keyboard

The most disappointing thing about the miniature Commodore 64 released last year was that its tiny keyboard didn't actually work—it was just for show. Those cryptically labeled dirt-brown keys were one of the most iconic features of the C64 back in the '80s. But come December, the C64 Mini will be joined by another Commodore 64 replica, this time with a full sized and fully functional keyboard.

Retro Games' The C64 was originally announced way back in 2016 but at the time, its Indiegogo crowdfunding campaign failed to reach its funding goal. It was put on hold

so that the C64 Mini could capitalize on the popularity of miniaturized throwback consoles like the NES and SNES Classic Editions from Nintendo. It did an admirable job at bringing a collection of 64 classic games to modern TVs, but it was a bring-your-own-keyboard affair if you wanted to try your hand at coding in BASIC again.

The C64, as the new console is simply known, has the same footprint as the original Commodore 64 that was first released back in 1982. The keyboard appears to have the same layout (and hopefully uses key switches that emulate the feel of the original's) and that glorious beige finish that screams, "boring

ed to modern TVs, but it maxes out at 720P, so don't expect to finally be able to play Impossible Mission in 4K. It also includes the same collection of games that the C64 Mini has, but to improve gameplay the accurately awful throwback joystick has been upgraded with new micro switches, so hopefully, it's a little more responsive than its predecessor.

In addition to its bundled collection of classic games, users can plug a flash drive into one of The C64's four USB ports (the C64 Mini had just two) and load any C64 or VIC20 ROM they feel was unfairly overlooked for inclusion. And, yes, in true C64 fashion, you'll have to

load those ROMS using the proper BASIC syntax. LOAD "\*",8,1

Retro Games has pegged December 5, 2019, as the day The C64 will officially ship, and it will come with a price tag of around \$120,

which is definitely more expensive than the C64 Mini, but that working keyboard will go a long way to recreating the original Commodore experience for nostalgia seekers.

...<https://gizmodo.com/a-commodore-64-clone-with-a-working-retro-keyboard-will-1835836875>



'80s computer.' It also comes with BASIC pre-installed, and it can be switched between modes that make it function like the classic C64, or even its predecessor, the Commodore Vic 20.

But that's where the similarities end. The new C64 includes an HDMI port so it can be easily connect-

## July Calendar

July 13 — MCCC Meeting  
2:00 PM — Burseson Public Library  
248 SW Johnson Ave., Burseson

July 13 — Board of Director's Meeting  
Approximately 4:00 PM — Location TBD

August 1 — Newsletter Deadline — 8:00 AM

MCCC 2507 Tamaron Cove Cedar Hill, Texas 75104  
<http://www.amigamccc.org>