



Too many projects and so little time. This is a small place to store some of my presentable stuff.

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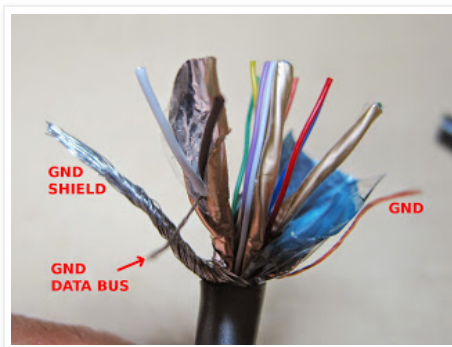
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SATURDAY, MAY 16, 2015

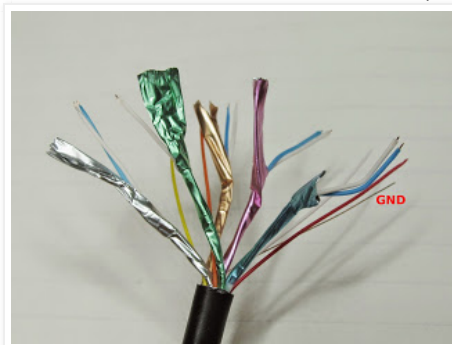
## HDMI cables are NOT all the same!

Sometimes very cheap or thin HDMI cables do not work with the Raspberry Pi Camera extension kit I made. Even if a camera is correctly plugged at startup, the Rpi cannot detect the camera and output an error message. In this short post I will explain why and show a quick fix.

First a normal HDMI cable with 19 lines. This is the most common design. There are four data buses (one is hidden behind in the pictures) with 3 cables in each, a GND line and a GND shield. The HDMI connectors are also put to GND. The Raspberry Pi Camera extension kit works with this kind of cable.



Now, this is a smaller diameter (it was Micro HDMI before I cut it) cable with only 15 threads. This cable has 5 data shields but there are no GND lines in them! There is not GND shield, just a wrapping that was cut before taking the picture. The HDMI connectors are put to GND. This cable does not work out of the box with the Raspberry Pi Camera extension kit.



### POSTS

[The Raspberry Pi Camera Extension Cable](#)

[HDMI cables are NOT all the same!](#)

[Petitduino, another breadboard friendly Arduino](#)

[32x32 RGB LED matrix, Painting with Light](#)

[Teensy 3\\* Development Board & Arduino Shield](#)

[LED CUBE](#)

### HISTORY

[May \(1\)](#)

[April \(1\)](#)

[May \(1\)](#)

[April \(1\)](#)

[December \(1\)](#)

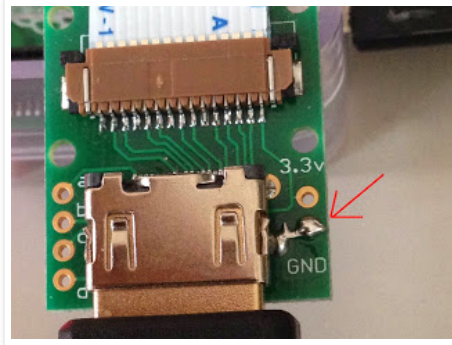
[April \(1\)](#)

### LABELS

[32x32](#) [RGB](#) [led](#) [matrix](#) [Akihabara](#) [Arduino](#) [Arduino shield](#) [atmega 328](#) [Breadboard](#) [Arduino](#) [Breakout](#) [board](#) [diy](#) [arduino](#) [Electronics](#) [HDMI](#) [LED](#) [light](#) [painting](#) [pi](#) [camera](#) [extension](#) [picamera](#) [pixel](#) [Prototyping](#) [Raspberry](#) [Pi](#) [Camera](#) [Teensy](#) [Teensy3](#) [Tindie](#) [WS2811](#)

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If at this stage if there is no image from the camera it is time to ask me an exchange.

Note that I could have connected the HDMI connector to GND by default, I decided against this. For safety reason I try to avoid connected metallic parts floating around.

Posted by fd at 4:45 PM



Labels: [HDMI](#), [Raspberry Pi Camera](#)

## 40 comments:



**Unknown** May 24, 2015 at 1:06 AM

Does this modification need to e done to both connectors (ie the camera end and the Raspberry Pi end)?

[Reply](#)

▼ Replies



**fd** July 19, 2015 at 4:45 PM

Yes on both connectors to connect their ground pins.

[Reply](#)



**Unknown** July 8, 2015 at 3:25 AM

Hi, great product. Just wondered if there was an enclosure for the rpi with twin hdmi ports?

cheers

Phil

[Reply](#)



**John Burns** July 29, 2015 at 7:23 PM

I still can't get mine to work. I've got three different HDMI leads and brought three pairs of the HDMI extenders. Testing with a multimeter it appears that connector 14 on the ribbon cable (SDA0) is not connected at the other end. Any tips?

[Reply](#)



**John Burns** July 30, 2015 at 10:37 AM

I tried this, but it turns out in my HDMI leads even the metal plug cases are not connected!

I had CSI pins 1,4,7,10 (Grounds) and 14 (I2C data) unconnected.

My fix is detailed at <https://www.john.geek.nz/2015/07/petit-studio-raspberry-pi-hdmi-extender-cheap-cable-fix/>

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**Ray Wells 4.0** November 10, 2016 at 2:54 AM

Awesome and fun writeup on that page. Recommend for anyone working with these to go read John's work on the cables.

[Reply](#)



**Martin** October 5, 2015 at 6:40 PM

Did anyone succeed using a 'cheap' 5m "flat-styled" HDMI cable? If so, which one? A short round cable (1.5m) works properly, but the 5m of <http://www.aliexpress.com/snapshot/6933422178.html> does not work, even after re-routing pin 14 to signal path to pin 'A' (because 14 was not connected). Shielding & all relevant pins are properly connected with this mod, but signal integrity seems insufficient (led on camera remains on though). Ferrite cores don't make any difference...

I really could use a working 5m (white) HDMI cable, preferably flat(!), so it would be great to have some reference of any success stories.

[Reply](#)[▼ Replies](#)**mosch** February 16, 2018 at 5:51 PM

I'm using the Adafruit DIY flat cables. They don't work either - how are they different?

[Reply](#)**marty** November 13, 2015 at 12:59 PM

Great to have a link to good cables as well

[Reply](#)**Anonymous** December 9, 2015 at 6:46 PMIf HDMI cables costs a few more dollars it doesn't matter as long as they work properly i have seen couple of good hdmi cables at cheaper price [HDMI Cable NT](#)[Reply](#)**Jobs-It -India** February 3, 2016 at 1:46 PMyes by looking at the clarity of the screen we get to know the HDMI Cable quality whether it's good or best and now a days we can find cheap quality cables at cheap prices under any online websites like <http://latestone.com/> still better to have proper warranty attached[Reply](#)**jpmathew** March 4, 2016 at 7:56 PM

I am in Kolkata, India, where even a good quality HDMI cable is rare. I got your extension boards and tried three different HDMI cables. None worked. I tried to check continuity and found pins 13 and 14 shows open through the HDMI cable. Can you share the Name of a working Cable, so that I can order that from ebay or amazon. Thanks

[Reply](#)**Unknown** May 12, 2016 at 5:41 AM

It would be awesome to have a list of HDMI cables that work, or some kind of identifier for the good ones. Thanks!

[Reply](#)**Unknown** May 31, 2016 at 5:02 PM

My Experience with some eBay HDMI Cables...

This one works fine ... <http://www.ebay.de/itm/251772881370>And this is a Trouble cable ... <http://www.ebay.de/itm/141346673708>[Reply](#)**Unknown** June 20, 2016 at 7:00 PMWe are pleased to introduce M/S Mandeep Cables Pvt Ltd one of the leading manufacturer of wire, [USB cables](#), [networking cables](#), [cords & wire harness](#), a name for excellence and quality engaged in the manufacturing of diverse electric wires. Call +91-9899000668[Reply](#)**Unknown** July 16, 2016 at 8:39 PMHello, I followed above blogpost as my camera wasn't working with HDMI cable. Still I face following issue..  
mmal: No data received from sensor. Check all connections, including the Sunny one on the camera board  
..I used jumperwire for now to connect the ground[Reply](#)**Anonymous** September 21, 2016 at 8:32 PM

The "multimedia" in HDMI includes audio and visual, whereas DVI only includes video. Additionally, HDMI is by definition "high definition" graphics only, whereas DVI is anything involving digital graphics, which includes high definition as well as low definition graphics. DVI includes all images created via the display of pixels, or non analog video. So, though all HDMI is digital video, or DVI, not all DVI is HDMI. HDMI offers superior, higher resolution graphics displays. DVI includes the universe of digital video displays, high and low.

<http://www.latestone.com/eCommerceCategoryList?productCategoryId=1501>[Reply](#)**hippo** December 12, 2016 at 10:37 PM



Great post with very useful information to all thanks for sharing with all of us  
[Buy laptop accessories online in india | online shopping store in ludhiana](#)

[Reply](#)



**Samuel Klein** February 15, 2017 at 2:47 PM

Really effective post for electronic knowledge i am really happy after read this post.

[RV Electrical Adapter](#)

[Reply](#)



**Anonymous** March 11, 2017 at 1:41 PM

HDMI cables connect today's TVs with A/V receivers, cable boxes, media players, and Blu-ray players. They send audio and video over the same cable, simplifying your hookups. Choosing the right HDMI cables can be tricky. Older cables don't support the latest features. The latest HDMI 2.0 cables support 4K TV and HDR (High Dynamic Range). <http://www.latestone.com/cables>

[Reply](#)



**sadvika reddy** March 15, 2017 at 7:21 PM

I get asked a lot; What makes some [HDMI cables](#) more expensive than others? The answer to that question is that it is all about the quality of the materials used and the skill that is used to construct the cable. There is probably no better way to explain what makes the difference between a good HDMI cable and a poor HDMI cable than to deconstruct one of the HDMI Systems HDMI cables.

[Reply](#)



**AC Connectors** April 12, 2017 at 4:00 PM

I am really impressed after read this post because that's helpful for adapters.

[15A to 20A adapter](#)

[Reply](#)



**juanjuergens** May 9, 2017 at 12:36 AM

howdy, your websites are really good. I appreciate your work.

[Kabel HDMI](#)

[Reply](#)



**Anonymous** June 28, 2017 at 7:48 PM

An author must have a vast knowledge of vocabulary. The dictionary of a writer must be full of new english vocabulary to make their work more attractive. Use of new words makes their work more valuable and graceful. [RS485 Cable](#)

[Reply](#)



**Unknown** July 19, 2017 at 8:22 PM

Very informative post, thanks for sharing.  
<http://bluefield.com.tw/product/hdmi-to-hdmi-10m-cable-bf116240456/#comment-5640>

[Reply](#)



**SFCable** November 20, 2017 at 4:37 PM

This comment has been removed by the author.

[Reply](#)



**Unknown** December 18, 2017 at 8:19 AM

Bought a few of your kits, great work. Can you me what you do with the rpi end of the extender to secure it mechanically? I custom designed some laser cut cases for the camera end, but am at a bit of a loss as to how to secure the rpi end and make the hdmi accessible without a lot more design work.

[Reply](#)



**mosch** February 16, 2018 at 5:50 PM

hey there! Bought your connector and got it working with a normal HDMI cable. I tried the DIY adafruit cable then (<https://www.adafruit.com/product/3564>) but it doesn't work. Even with the GND connected. Am I missing something?

[Reply](#)

**Unknown** March 28, 2018 at 7:02 PM



like the solder pads on the V2 board, nice touch

[Reply](#)



**Fuzail faisal** August 20, 2018 at 8:19 PM

I found your this post while searching for information about blog-related research ... It's a good post .. keep posting and updating information. [top-5-best-hdmi-cables](#)

[Reply](#)



**Muhammad Hassan** September 19, 2018 at 1:13 AM

This is such a great resource that you are providing and you give it away for free. I love seeing blog that understand the value of providing a quality resource for free. [Best HDMI Cables](#)

[Reply](#)



**SFCable** November 19, 2018 at 4:11 PM

I really appreciate this wonderful post that you have provided for us. I assure this would be beneficial for most of the people. [Ethernet Cables](#)

[Reply](#)



**Impressions India** February 2, 2019 at 7:50 PM

I am reading your post from the beginning, it was so interesting to read & I feel thanks to you for posting such a good blog, keep updates regularly.

[HDMI Cable](#)

[HDMI Cable](#)

[Reply](#)



**Chiến SEOCAM** February 28, 2019 at 4:20 PM

Nadam se da imate bolje članke. Dobro došli

[Máy massage chân](#)

[Chậu ngâm chân](#)

[Bồn ngâm massage chân](#)

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**Ram Chauhan** March 9, 2019 at 5:04 PM

The post are really good, and wonderful to visit your site.

[SAFEALL Audio & Video Intercom Systems](#)

[Reply](#)



**iShine Trade** July 10, 2019 at 2:37 AM

The idea was delivered very well this is what I call an informative blog.thanks for sharing [iPhone Screen Wholesale](#)

[Reply](#)



**Hir Infotech** December 31, 2019 at 3:23 PM

This comment has been removed by the author.

[Reply](#)



**Oceanapart Technologies** February 4, 2020 at 5:21 AM

This was not my related topic but the way you explained really great. and today through your post i got to know something out of my box. Thanks for sharing.

[tv device hookup - oceanapart technologies](#)

[Reply](#)



**RF-AV** February 8, 2020 at 3:21 PM

This comment has been removed by the author.

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**RF-AV** February 8, 2020 at 3:32 PM

Great post!

You can find **HDMI cable adapter ring** at best deal. Visit <https://rf-av.com/>

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