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# Six/hex monitor workstation: GPU options and guide!



Daniel Rosehill

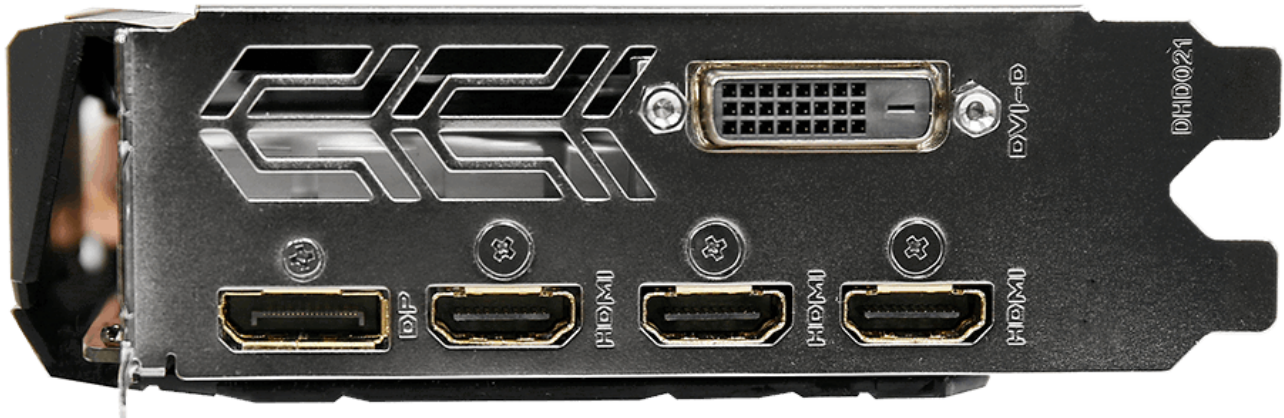
Jan 31 · 6 min read



Hopefully this will be my desk sometime soon!

I was recently delighted to receive my desktop back from Machshefon (מחשפון) — a computer repair shop near where I live in Jerusalem.

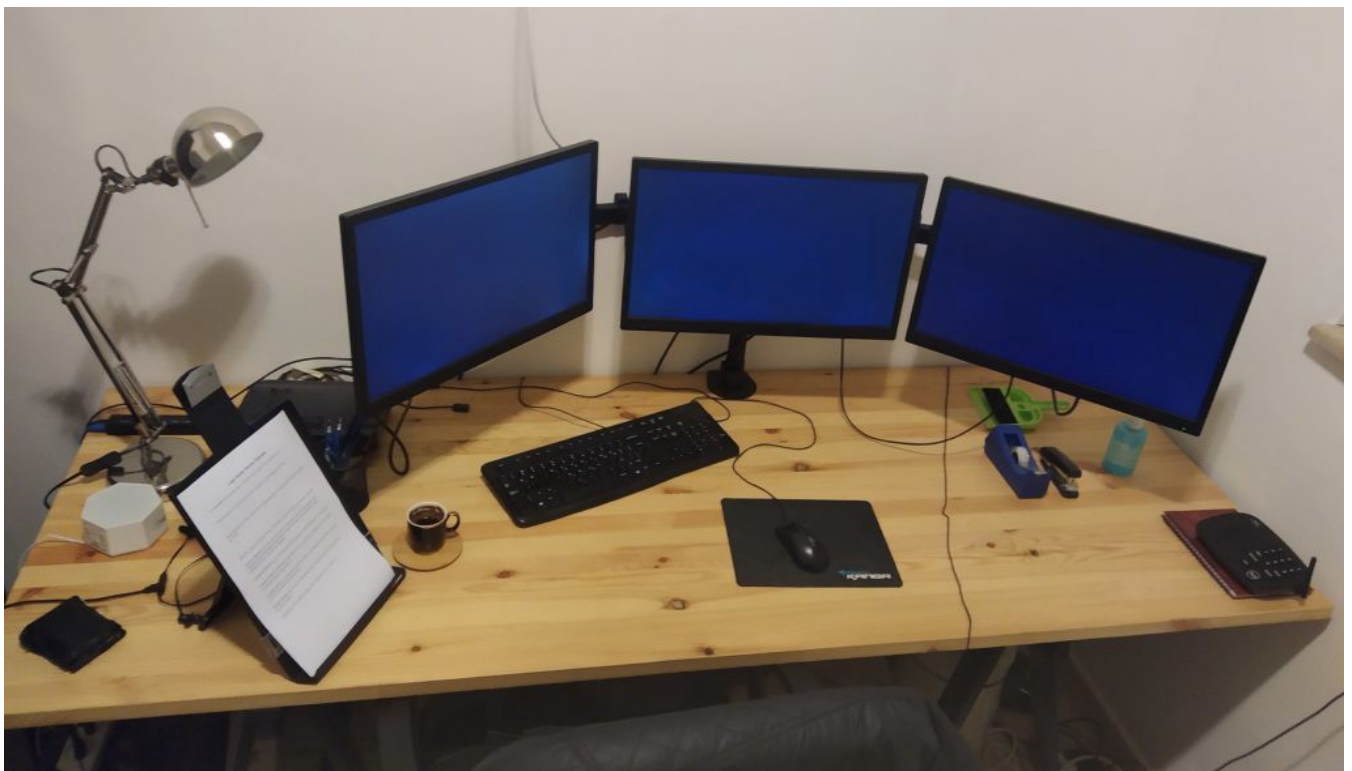
With the wind of the Gigabyte GeForce GTX 1050 Ti Windforce OC, 4G in my sails, I can move beyond the primitive three monitor setup I have been slumming it with for years.



Output / IO plate view Gigabyte GeForce® GTX 1050 Ti Windforce OC 4G

I'm planning on using my new single and dual-vertical VESA mounts from Amazon to set up a fourth and possibly fifth display.


But when it comes time to embark upon my next build, and I have lugged in a hex stand, this is going to be my next project!



Current workstation. Let's call this V1.0

As I mentioned in my guide to VESA monitor mounts which I posted here, six (or “hex”) monitor configurations are really towards the top end of what it’s “easy” to configure.

Trying to set up more screens than that (say eight) is almost past the boundaries of human ergonomics — and you need to start buying from specialist ergonomic suppliers to even get stands that support that many screens!



**EZM Deluxe Hex Monitor Mount Stand Free Standing with Grommet Mount Option Supports up to 6 28" (002-0023)**  
by EasyMountLCD  
★★★★☆ 1,239 ratings  
587 answered questions  
Amazon's Choice for "six monitor mount"

Price: **\$159.95** + \$195.94 Shipping & Import Fees Deposit to Israel [Details](#)

Color: **002-0023**

	\$74.95		\$81.95
	\$104.95		<b>\$159.95</b>
	\$124.95		

- COMPATIBILITY - Holds most monitors including curved widescreens up to 6 27"/28" with VESA 75 x 75 mm or 100 x 100 mm Compatible. Quick release mounting brackets for easy installation

**\$159.95**  
+ \$195.94 Shipping & Import Fees Deposit to Israel [Details](#)

This item ships to Israel. Get it by **Wednesday, Feb. 5 - Monday, Feb. 10** Choose this date at checkout. [Learn more](#)

**In Stock.**

Qty: 1

[Add to Cart](#) [Buy Now](#)

Sold by **EasyMountLCD** and Fulfilled by Amazon.

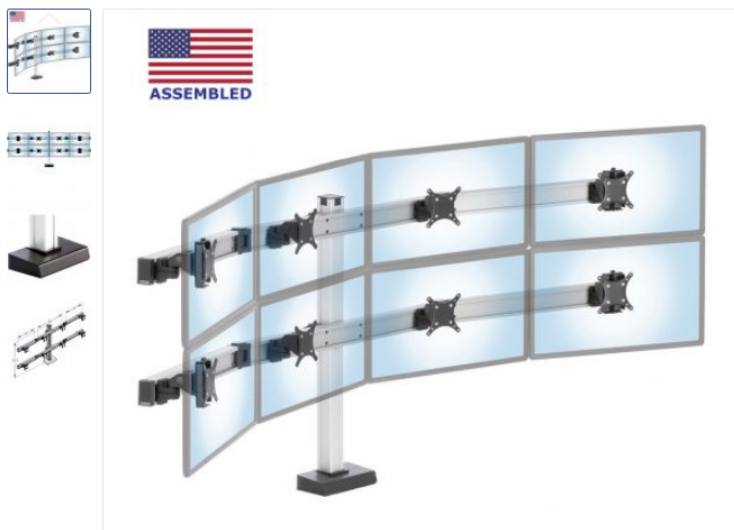
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## CONNECT-44 DUAL TIER EIGHT MONITOR STAND

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OPTIONAL MOUNT KIT ?

[CLAMP MOUNT](#)
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● REQUIRED ITEMS

The dual-tier eight monitor stand from ErgoMart.com. Current selling price: \$1,110.66.

But let's run through what you'd need to do to get a six / hex stand set up for your home office — whether you're a day trader, a gamer, a multi-monitor obsessive like

me, or just plain curious about what one could do with that many screens.

To get that going for yourself, you'll need:

- **A six / hex VESA mount.** Because they require a fair amount of steel, these are both heavy and (relatively) pricey compared to single or dual mounts. This VIVO bracket, for instance, comes in at \$109.99 — but its shipping weight is listed at 32.7 pound (14.8 KG). I live in Israel so my best Amazon option would be to go for this EZM Deluxe Hex Monitor Mount — but the shipping costs almost \$200! (There are a few domestic options, if you are also in Israel, but, of course, they cost a multiple of what they do in the US. RSM, for instance, sells one for 1,135 NIS = \$329.16 at today's rate — more than three times the price of the Amazon.com mount!)
- **A decent PSU:** You're going to need a Power Supply Unit (PSU) that meets or exceeds the minimum wattage requirement of your graphics card. Because graphics card that can handle six monitors don't tend to economize on resource usage, these cards can require as much as 700W-1000W. If your PSU doesn't meet that spec, or support the right power cable that the GPU needs, it's time for an upgrade. I've priced an option in the 'shopping cart' later.
- **A six output capable GPU.** You've actually got a few options here. You can go with a card that has six or more native outputs (as in, one output per monitor); opt for a dual GPU install (putting in two graphics cards — a bit more complicated); or you can go with a card that has as few DisplayLink outputs and daisychain a few monitors together. Personally, I think that the first option is the cleanest technically and therefore the 'best' (it poses the fewest technical challenges).

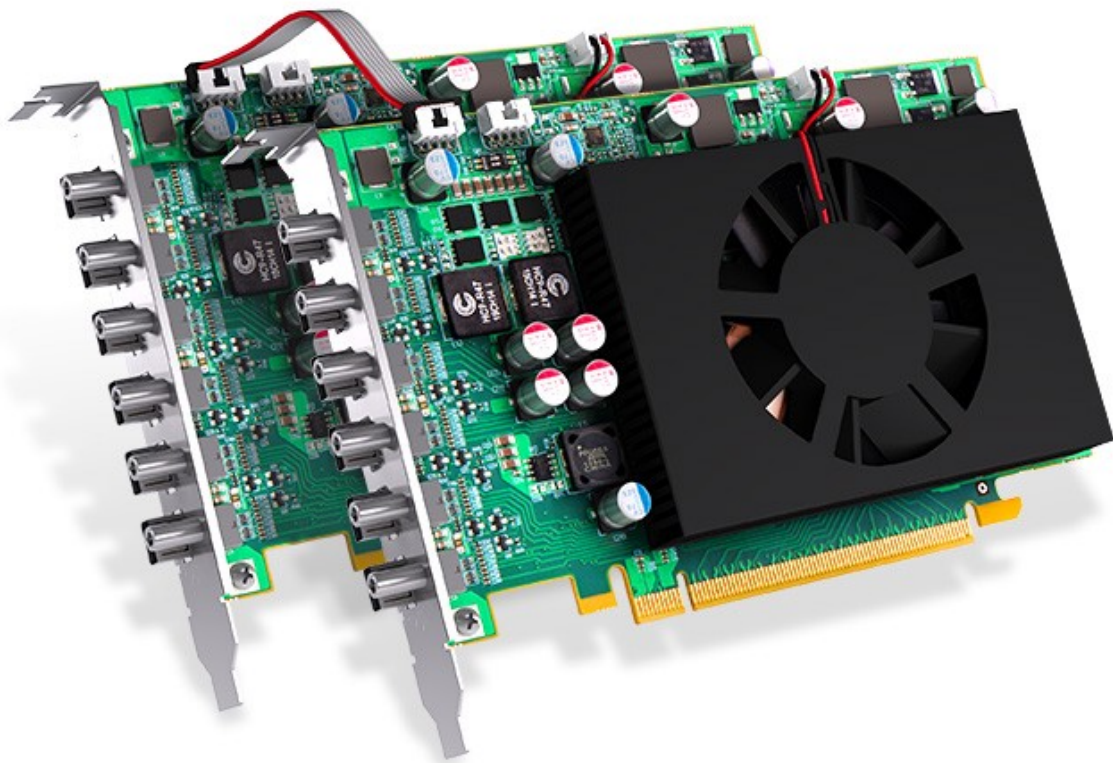
So without further a-do, here are a few of the GPUs I have found so far that can drive six or more outputs.

(This article is for the interest of the multi-monitor-using community. None of these links are affiliate links! If daisy-chaining DP outputs sounds better to you, then check out this guide from MultiMonitorComputer.com).

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## Option 1: Matrox C680 PCIe x16 (\$695)





Matrox is kind of the king of serious high-performance multi-monitor GPUs.

This card can drive six displays with a maximum resolution of up to 4096 x 2160 px. And it’s going to be out of production within the next six months, so get it quick!

**Outputs:** 6 x MiniDP, 1.2

**Technical Specifications:** Full user guide

Connectivity	
Bus Type	PCIe 3.0 x16
Form Factor (Card)	Full Height/Half Length
Bracket (Mounted)	Full height bracket (ATX)
Extra Bracket Included	–
Number of Video Outputs	6
Video Output Connectors	6 x Mini DisplayPort (secure)
Video Output Formats	DisplayPort™ 1.2
Optional Video Output Formats (Active adapters required - sold separately)	- DVI Dual Link - DVI/HDMI® Single Link
Audio Output Formats	- Multi-stream audio through DisplayPort (6 streams)
Performance	

Memory	4GB GDDR 5*
GPU	AMD™
Maximum resolution (per monitor)	4096x2160 @ 30Hz (DisplayPort) 4096x2160 @ 60Hz (DisplayPort, maximum of three) 3840x2160 @ 30Hz (DisplayPort and HDMI)

**Downside:** Being mostly targeted at the industrial / enterprise market, Matrox cards can be hard to source for the average consumer.

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## Option 2: (And Top 6 Output Contender): Radeon RX 5700 XT Taichi X 8G OC+ (\$439.99)

This card is actually unusual in the six discrete output category in that it doesn't feature exclusively Mini-DP ports.

Nevertheless, as can be seen below, this Radeon card offers:

- 4 x full Display Port (DP) outputs
- 2 x HDMI outputs

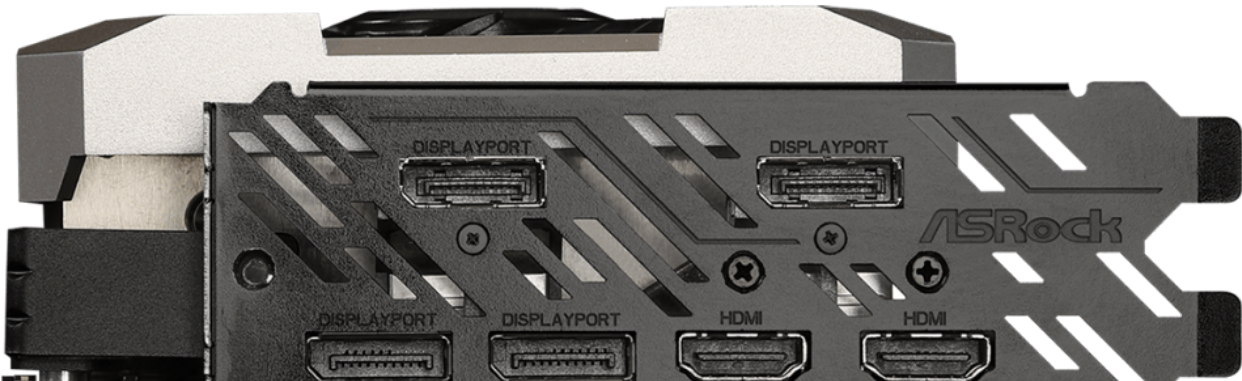
**Outputs:** 4 x DP (full, 1.4 with DSC 1.2a), 2 x HDMI

**Recommended PSU:** 700W

**Power connector:** 2 x 8-pin

**Full technical specifications**

**Outputs:**





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### Option 3: VisionTek Radeon 7870 2GB GDDR5 6M (\$399, but out of stock)

This Radeon card also has six Mini-DP outputs.

Unfortunately, at the time of writing, it's Out of Stock on NewEgg.com and I couldn't find any new sellers on any Amazon marketplace. The Amazon listing shows that the card was first listed almost seven years ago — so my bet is that it's out of production.



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## Option 4: NVIDIA NVS 810 (\$1,102)

Like the Matrox option, this card from PNY is a little long in the tooth, but it's the top dog in the list for unique outputs.

It sports no less than *eight* mini-DP outputs (1.2), each of which is capable of driving a 4,096 x 2,160 px display — which would be enough to drive two 1080p (1920x1080) displays using a Multi Stream Technology (MST) hub. The maximum power draw, at just 68W, is also quite modest.



Output view

Unfortunately, the list of places to buy this is getting smaller, but I managed to find a few vendors on Amazon.co.uk. These were the prices at the time of writing.

Return to product information | Have one to sell? | Never pay for an item or contact an Amazon Seller outside of the Amazon.co.uk website. Only purchases paid through Amazon are covered by the A-to-Z guarantee. Learn More

**PNY Graphics Card NVIDIA NVS 810 8xDP 4GB DDR3**  
by PNY

★★★★☆ 12 customer reviews

Style: VCNV5810DP-PB

300X1 Display Port 512MB DDR3 | 300X1 VGA 512MB DDR3 | 300X16 DVI 512MB DDR3 | 300X16 Display Port 512MB DDR3 | 315 DVI 1GB DDR3 | NVIDIA NVS 810 4 GB DDR3 8XDVI | VCNV5310DP-1GB-PB | VCNV5310DVI-1GB-PB | VCNV5315DP-PB | VCNV5510DP-PB | VCNV5510DVI-PB | VCNV5510VGA-PB | **VCNV5810DP-PB** | Lowest offer for each

Refine by	Price + Delivery	Condition	Seller Information	Delivery	Buying Options
<b>Delivery</b> <input type="checkbox"/> Free delivery <b>Condition</b> <input checked="" type="checkbox"/> New	<b>£835.41</b> + £62.45 Delivery	New	<b>Allen Stock</b> ★★★★★ 88% positive (8 total ratings)	• Dispatched from France. • Delivery rates and return policy.	<input type="button" value="Add to Basket"/>
	<b>£1,201.12</b> + £22.79 Delivery	New	<b>Gaiacom</b> ★★★★★ 79% positive over the past 12 months. (439 total ratings)	• Arrives between February 7-12. • Want delivery by Friday, 7 February? Choose <b>Express Delivery</b> at checkout. • Delivery rates and return policy.	<input type="button" value="Add to Basket"/>
	<b>£1,249.48</b> + £22.79 Delivery	New	<b>Gaiacom</b> ★★★★★ 79% positive over the past 12 months. (439 total ratings)	• Arrives between February 7-12. • Want delivery by Friday, 7 February? Choose <b>Express Delivery</b> at checkout. • Delivery rates and return policy.	<input type="button" value="Add to Basket"/>

This card definitely isn't cheap, but it would be a great choice for a video editing and rendering workstation — or any other use-case that might benefit from an enormous *eight* or even *sixteen* screen display!

• • •

## Top Choices

**All rounder:** Radeon RX 5700 XT Taichi X 8G OC (\$439.99, NewEgg.com)



**Most displays:** NVIDIA NVS 810 (8 x DP 1.2; max resolution per display 4096 x 2160) (\$1,100+ — if you can find a stockist!)

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## Runners-up: GPUs with 5 Discrete Outputs

- My current card, the GeForce® GTX 1050 Ti Windforce OC 4G (still amazed this only has a 300W recommended PSU requirement!)
- EVGA GeForce GT 730 4GB DDR3 128bit Dual DVI mHDMI Graphics Cards 04G-P3-2739-KR
- ZOTAC GeForce GTX 1060 AMP!, ZT-P10600B-10M, 6GB GDDR5 (Out of Stock)

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## Hex Stand Shopping List — GPU + 1000W PSU + stand = \$709.97 (ex monitors!)

How much will this all cost, you might be wondering?

Assuming you already have a functional desktop computer, and that you're based in the US (so don't have to deal with obscene international shipping and customs problems!) here's a credible costing for all required components:

**GPU** — Radeon RX 5700 XT Taichi X 8G OC+ (\$439.99 from NewEgg.com)

**PSU** — 1000W should be comfortable, even for high-end cards. EVGA SuperNOVA 1000 G5, 80 Plus Gold 1000W (\$159.99 from NewEgg.com)

**Stand** — VIVO Steel Hex LED LCD Computer Monitor Heavy Duty Desk Mount (\$109.99 from Amazon.com with free shipping in the US)

**TOTAL: \$709.97**

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