June 2012 Gaming PC Builds:

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Gaming PC Builds of the Month Introduction:

Welcome to the wonderful month of June where I have updated each and every gaming PC build from the previous month with the June 2012 Gaming PC Builds of the month. We are into the second month since the Ivy Bridge processors were released, we are now seeing more reviews and overall impressions; seemingly so, I was right to include the Intel i5 3570K processor in both the mid-range and high-range builds last month as I will again.

This month I am going to be providing links for each build to the Newb Computer Build Gaming PC Builder to automatically add each piece of hardware to a complete build list with one click. Since all hardware is similarly linked to Amazon you could essentially add your whole build to an Amazon shopping cart in one click.

Monthly Gaming PC Build ($529): June 2012

(Game at Medium - High settings at 1920X1080 resolutions)

Gaming PC Build Recipe:

All hardware is linked to Amazon.com - You Can also try [Amazon.ca](#) (CANADA) • [Amazon.co.uk](#) (UK) [Newegg.com](#) (US) • [Newegg.ca](#) (CANADA) to shop for these parts.

Processor: [Intel Core i3-2120 Processor 3.3 GHz 3MB Cache Socket LGA1155](#) Price: $123.55	**Motherboard:** [ASUS P8H61-M LX PLUS <REV 3.0> - LGA 1155 - H61 - COM port - LPT port](#) Price: $69.99
Graphics Card: [PowerColor ATI Radeon HD6850 1 GB DDR5 2DVI/HDMI/DisplayPort PCI-Express Video Card AX6850 1 GBD5-DH](#) Price: $139.99	**RAM:** [Corsair Dominator 8 GB PC3-10666 1333mHz (PC3 10666) 240-Pin DDR3 SDRAM 1.6v Dual Channel DDR3 Memory Kit for Intel and AMD 8 Dual Channel Kit CMP8GX3M2B1333C9](#) Price: $36.98
Hard Drive: [Western Digital Caviar Blue 500 GB SATA III 7200 RPM 16 MB Cache Bulk/OEM Desktop Hard Drive - WD5000AAKX](#) Price: $74.99	**Power Supply:** [Cooler Master eXtreme Power Plus Series 500W ATX12V V2.3 Power Supply (RS500-PCARD3-US)](#) Price $34.99
Computer Case: [Hercules ATX Mid Tower PC Computer Case, Black [HRC-26-05]](#) Price: $31.47	**Optical Drive:** [Asus 24xDVD-RW Serial ATA Internal OEM Drive DRW-24B1ST (Black)](#) Price: $17.99
Estimated Price: $ 529 *(Over budget to accommodate plus fluctuations, but well worth it!)*	

Overview: Gaming PC Build (< $500)

After re-checking any of the price fluctuations from last months $500 build, I had to revise the hardware since prices for some of the hardware went up resulting in a build totalling about $538, a tad overbudget. However, I still was not able to squeeze the $500 build to below the budget and it came out to $529. This is because I did not believe in decreasing the quality of any of the hardware and if I did squeeze the price any lower this month, I would have had to do this. One of my goals when making these builds is to try to not create a situation where anyone is disappointed and wished they had not purchased a specific part just because of a few dollars difference.

Even though I had to increase the price of the build a tad this month, you do get tons for it. Such as I was able to swap the graphics card to a one upgrade from the previous Radeon HD 6790 to the Radeon HD 6850 since they are at this moment, the very same price from PowerColor (Take advantage of this!). As well this month, a swap fro a very nice 8GB pair of Corsair RAM, slight swap for a different Asus motherboard, switch to ASUS optical drive from the previous Sony, and a nice budget case swap to a Hercules ATX Black case.

As the trend seems to be, I am keeping the Intel 2120 processor in the budget CPU spot as it is still holding in there very strongly as Intel has yet to release the Ivy Bridge versions of any dual core i3 processors that are planned for release later this year. If anyone is concerned whether or to go for the budget build or splurge for the higher end ones, you do not have to worry much if you goal is to buy a PC on a tight budget, plan to game on any game, but do not necessarily expect extreme settings on the most FPS demanding games.

This gaming PC will still be able to play most game at medium to high settings (depending on the type of game) at resolutions of 1920X1080 (recommended).

Upgrade suggestions for the < $500 Gaming PC Build:

Trying to keep within the idea that we want to stay below budget from the next build, these hardware upgrade suggestions are based on the fact that you want a little more than just what is included in the above hardware. Generally each piece of hardware could be considered as sort of a "one up" from any of the previous hardware.

For example: The Intel i5-2310 processor would be considered the next step in line after the Intel i3 2120 in terms of a price per performance perspective.

- **Processor:** Intel Core i5 Processor i5-2310 2.9GHz 6MB LGA1155 CPU (BX80623I52310)
- **Motherboard:** Gigabyte Intel Z68 ATX DDR3 2133 LGA 1155 Motherboard GA-Z68A-D3H-B3 (Z68 BOARD)
- **Graphics Card:** EVGA GeForce GTX 560 1024 MB GDDR5 PCI Express 2.0 2DVI/Mini-HDMI SLI Ready Graphics Card, 01G-P3-1460-KR
- **Hard Drive:** Western Digital 1 TB Caviar Blue SATA III 7200 RPM 32 MB Cache Bulk/OEM Desktop Hard Drive - WD10EALX
- **RAM:** none (8GB is plenty for this build)
- **Power Supply:** Corsair Builder Series CX600 600 watt 80 Plus Certified Power Supply Compatible with Intel and AMD Platforms ATX 700 CMPSU-600CXV2
- **Computer Case:** GAMMA Classic Series ATX Mid Tower Interior Steel Chassis (Black)

- **Optical Drive:** None.

The above upgrades would be for somebody that is able to extend their budget a little. Depending on what your needs are (needing more space, play higher end games etc). will depend on what upgrades you would trade up to. Personally, If I have a little extra cash I would bump up the processor or graphics card as these two will have those most effect on gaming performance.

Want other suggestions? Then leave a comment and I will try to get back to you as soon as I can.

Overview: The Gaming PC Hardware

[Intel Core i3-2120 Processor 3.3 GHz 3MB Cache Socket LGA1155](#) Price: $123.55

Intel i3 2120 Processor

Used for many months, this Intel 2120 processor still stands as a strong competitor for budget CPU's as part of the Intel Sandy bridge line of processors. Even though this processor is included in the low end build, it is quite powerful for this price range. Just compare it to other CPUs around its range in [CPUbenchmark.net's CPU benchmarks of the Intel i3-2120](#).

When paired with the Radeon HD 6850 graphics card below (an upgrade from last months card!) you should be able to play most games at decent settings (high graphics depending on the intensity of the game), and get decent frame rates at resolutions of 1920X1080. Want a greater boost in performance, try any of the [suggested upgrades](#) above. *Keep in mind that more demanding games like Battlefield 3 may call for lower settings, but this setup should be able to play games like Skyrim at frame rates of 40-45.*

Intel Core i3-2120	2 cores	3.3GHz clock speed	4 threads

Technical Details:

- Process Type: Intel Core i3 Processor i3-2120 Frequency: 3.3 GHz DMI: 5 GT/s
- Intel Smart Cache: 3 MB Process: 32 nm Socket: LGA1155
- Power Consumption: 65 W Max Memory Bandwidth: 21 GB/s Graphics Base Frequency: 850 MHz
- Graphics Max Dynamic Frequency: 1.1 GHz This processor is a Dual Core Processor

- This processor supports Hyper-Threading Technology This processor supports Intel Virtualization Technology (VT-x)
- This processor supports Enhanced Intel Speedstep Technology This processor supports Thermal Monitoring Technologies
- This processor supports Intel 64 This processor supports Idle States
- This processor supports Intel Fast Memory Access This processor supports Intel Flex Memory Access

ASUS P8H61-M LX PLUS <REV 3.0> - LGA 1155 - H61 - COM port - LPT port Amazon Price: $69.99

ASUS P8H61-M LX PLUS <REV 3.0> - LGA 1155 - H61 - COM port - LPT port

Supporting up to 16Gb RAM (you probably will never even upgrade to this amount in this build) and a micoATX architecture makes this a small and compact budget board. This ASUS motherboard is honestly a rock solid board for only $69.99 with everything you need and nothing more (other than perhaps a few more USB ports, but who's complaining?)

Technical Details:

- 2 x DIMM, Max 16GB, Dual-channel DDR3 1333/1066MHz support
- 100% Solid Capacitor - High-quality conductive polymer capacitors for durability, improved lifespan and enhanced thermal capacity
- UEFI (Unified Extensible Firmware Interface) BIOS
- Gb LAN featuring the latest Realtek Chipset
- 1 x COM port1 x LPT port
- ASUS Anti-Surge Protection - Safeguard your device by providing voltage protection to all major onboard components
- EPU - System Level Energy Saving & Real-time Power Management for Superb Platform Power Efficiency
- Low EMI - ASUS innovative design for 50% less radiation

PowerColor ATI Radeon HD6850 1 GB DDR5 2DVI/HDMI/DisplayPort PCI-Express Video Card AX6850 1 GBD5-DH Price: $139.99

PowerColor ATI Radeon HD6850 1 GB DDR5 2DVI/HDMI/DisplayPort PCI-Express Video Card AX6850 1 GBD5-DH

For the last couple of months I was proud to include the Radeon HD 6790 graphics card, however prices seemed to go weary and I was actually able to choose a Radeon HD 6850 (a bump up!) graphics card for the exact same price of $139.99!! This card will offer a good performance in any game at resolutions of 1920x1080, so who said buying a budget build wasn't worth it?!

Technical Details:

- Chipset: Radeon HD6850 Engine Clock: 775 MHz Video Memory: 1GB DDR5
- Memory Clock: 1000 MHz (4.0 Gbps) Memory Interface: 256-bit Bus: PCI-Express 2.1 x16
- RAMDAC: 400 MHz Stream Processors: 960 Max. Resolution: 2560 x 1600
- Connectors: Dual DVI, HDMI, DisplayPort Thermal: Fansink
- Support Microsoft Windows 7/ Vista/ XP Support ATI CrossFireX Technology

Corsair Dominator 8 GB PC3-10666 1333mHz (PC3 10666) 240-Pin DDR3 SDRAM 1.6v Dual Channel DDR3 Memory Kit for Intel and AMD 8 Dual Channel Kit CMP8GX3M2B1333C9 Price: $36.98

Corsair Dominator 8 GB PC3-10666 1333mHz (PC3 10666) 240-Pin DDR3 SDRAM

I was getting worried with some of the price increases of whether or not I would have to drop from 8GB of RAM to 4GB, but then I came across this gorgeous set of RAM for about $6-7 more than the usual price of a 4GB RAM kit. Not only that, but this RAM kit looks solid as it comes with the nice Dominator style heat shield. People seem to be having quite positive impressions over these ones.

Technical Details

- Ultra-high performance 8GB (2 x 4GB) DOMINATOR kit for Dual Channel processors.
- Speed: PC3-10666 1333mhz
- Timing: 9-9-9-24 Latency
- Voltage: 1.6v
- Pin Out: 240-pin

- Dominator Heat Spreader
- Lifetime Warranty
- Memory Type: DDR3

[Western Digital Caviar Blue 500 GB SATA III 7200 RPM 16 MB Cache Bulk/OEM Desktop Hard Drive - WD5000AAKX](#) Price: $74.99

Western Digital 500 GB Caviar Blue

As said per last month when I first included a 500GB hard drive in the budget $500 builds -

"Many of the months previous I have had to put a 250GB hard drive included in the lower $500 build. This may have been for many reasons, the most prominent being the past hard drive shortage. Seeing as prices seemed to have stabilized some the 500GB Western Digital Caviar Blue seems to be the most price smart hard drive."

Performance Details From Western Digitals' Website:

Performance Specifications		▲
Rotational Speed	7,200 RPM (nominal)	
Buffer Size	16 MB	
Load/unload Cycles	300,000 minimum	
Transfer Rates		
Transfer Rate (Buffer To Disk)	126 MB/s (Max)	

Physical Specifications

	Formatted Capacity	500,107 MB
	Capacity	500 GB
	Interface	SATA 6 Gb/s
	User Sectors Per Drive	976,773,168

Metric

	Height	26.1 mm
	Depth	147 mm
	Width	101.6 mm
	Weight	0.69 kg

Temperature (English)

	Operating	32° F to 140° F
	Non-operating	-40° F to 158° F

Temperature (Metric)

	Operating	-0° C to 60° C
	Non-operating	-40° C to 70° C

Electrical Specifications

Current Requirements

	Power Dissipation	
	Read/Write	6.80 Watts
	Idle	6.10 Watts
	Standby	0.70 Watts
	Sleep	0.70 Watts

Product Details

- WD Caviar Blue hard drives have a multitude of features to deliver rock solid performance and ultra-cool and quiet operation.
- 3rd generation SATA interface for 6 GB/s maximum data transfer rates.
- WhisperDrive technology minimizes noise to levels near the threshold of human hearing.
- 500 GB capacity holds up to 100,000 digital photos, 125,000 MP3 files, and 60 hours of HD video.
- Ships in Certified Frustration-Free Packaging
- 3rd generation SATA interface for 6 GB/s maximum data transfer rates
- 500 GB capacity holds up to 100,000 digital photos, 125,000 MP3 files, and 60 hours of HD video
- WD Caviar Blue hard drives have a multitude of features to deliver rock solid performance and ultra-cool and quiet operation
- WhisperDrive technology minimizes noise to levels near the threshold of human hearing

Cooler Master eXtreme Power Plus Series 500W ATX12V V2.3 Power Supply (RS500-PCARD3-US) Price: $34.99

Cooler Master eXtreme Power Supply

Still a very affordable Cooler Master eXtreme 500W Power Supply Unit! Its a very basic PSU and does the job for this build. The only thing with this PSU is that if you plan to re-use it for say a next build, I would advise to get the other PSU in the other hardware suggestions as outlined above. This is a nothing more, nothing less sort of choice of a power supply unit, and for a phenomenal price.

Technical Details:

- Maximum Power: 500 W
- Type: ATX from factor 12V V2.01
- PFC (Power Factor Correction): Active PFC
- Fan: 120mm Sleeve bearing fan
- Connectors: 1x 20+4 pin Motherboard Connector; 1x 4+4pin 12V CPU Connector; 2x 6+2pin PCI-Express Connectors; 6x SATA Connectors; 3x 4pin Peripheral Connectors; 1x 4pin Floppy Connectors
- Compliance with the newest Intel std ATX 12V V2.3
- Green power design to meet with energy star
- More than 70% efficiency
- Multiple protection design
- Protection: OVP/ OPP/ Short Circuit Protection
- Super silent operation with intelligent fan speed control

Hercules ATX Mid Tower PC Computer Case, Black [HRC-26-05] Price $31.47

Hercules ATX Mid Tower PC Computer Case, Black [HRC-26-05

It can be a struggle to fit a decent case into this build in particular. This is because I try to squeeze all of the most affordable hardware as possible into the lower end build, and then have to choose a basic metal / plastic container to put it in. This case in particular is only $31.47, comes with an external fan, and has plenty of room. Did I mention it looks good too? When compared to its adversaries, it compares very well.

Technical Details:

- Side air guide moves hot hot air directly outside to keep components cool
- Six card slots for increased expandability
- High strength lightweight steel construction
- Front I/O for easy access
- Four 5.25" & seven 3.5" drive bays

[Asus 24xDVD-RW Serial ATA Internal OEM Drive DRW-24B1ST (Black)](#) Price: $17.99

Asus 24xDVD-RW Serial ATA Internal OEM Drive DRW-24B1ST (Black)

I had to finally give in and change the optical drive brand, a big deal? No its not a big deal, but the prices on the previous Sony drive went up by about $5 so I decided to go with this basic ASUS $17.99 optical drive, which actually used to be my older recommendation. Used by many, and the usual not so special DVD/CD reader/writer. You can read the READ and WRITE speeds below -

Product Features

DVD-ROM Access Time - 140ms - CD-ROM Access Time - 150ms - Cache - 1.5MB - WRITE Speed - DVD+R 24X DVD+RW 8X DVD-R 24X DVD-RW 6X CD-R 48X CD-RW 32X DVD+R DL 12Xb DVD-R DL 12X DVD-RAM 12X READ Speed DVD-ROM 16X CD-ROM 48X

Monthly Gaming PC Build ($988): June 2012

Gaming PC Build Recipe:

Capability: Game with Extreme settings at 1920X1080 resolutions and even High Settings in some games at 2560x1600

All hardware is linked to Amazon.com - You Can also try Amazon.ca (CANADA) • Amazon.co.uk (UK) Newegg.com (US) • Newegg.ca (CANADA) to shop for these parts.

Processor: *Intel Core i5 3570K Processor 3.4 4 BX80637I53570K* *Price: $227.98*	**Motherboard:** *MSI Z77A-GD65 Z77 DDR3 1600 LGA 1155 Motherboards* *Price: $179.99*
Graphics Card: *Sapphire Radeon HD 7850 OC 2 GB DDR5 HDMI/DVI-I/Dual Mini DP PCI-Express Graphics Card 11200-01-20G* *Price: $259.99*	**RAM:** *Corsair Dominator 8 GB PC3-10666 1333mHz (PC3 10666) 240-Pin DDR3 SDRAM 1.6v Dual Channel DDR3 Memory Kit for Intel and AMD 8 Dual Channel Kit CMP8GX3M2B1333C9* *Price: $36.98*
Hard Drive: *Western Digital 1 TB Caviar Blue SATA III 7200 RPM 32 MB Cache Bulk/OEM Desktop Hard Drive - WD10EALX* *Price: $97.53*	**Power Supply:** *Corsair Enthusiast Series 750-Watt 80 Plus Bronze Certified Power Supply Compatible with Intel Core i3, i5, i7 and AMD platforms - CMPSU-750TXV2* *Price: $106.98*
Computer Case: *Corsair Carbide Series 300R Mid-Tower Gaming Case - CC-9011014-WW* *Price: $60.80*	**Optical Drive:** *Asus 24xDVD-RW Serial ATA Internal OEM Drive DRW-24B1ST (Black)* *Price: $17.99*
Estimated Price: $988 (Price per performance here is phenomenal!)	

Overview: Gaming PC Build ($500 - $1000)

In the mid range $1000 (priced currently at $998) gaming pc build this month, there have not been ay extreme changes, but you do get a solid build that will play any game really well and with no sweat at 1920X1080 resolutions, overclocks very simply with a higher quality motherboard and a change in graphics card brand to the Sapphire Radeon HD 7850 graphics card. All for less than last the cost of last months build!

Again I have included the new Intel Ivy Bridge 3570K processor (just about $10 more than the Intel 2500K). Other than that most other things have remained static other than minor brand changes (optical drive, and RAM).

Looking for a gaming PC in the $1000 price range, then you really can not go wrong with this one! Want to know more about the individual hardware components, then read further:

Overview: The Gaming PC Hardware

Intel Core i5 3570K Processor 3.4 4 BX80637I53570K Price: $227.98

Intel Core i5 3570K Processor

A fresh face to the mid and high range gaming PC builds processor spots, the Intel 3570K is the new avenger for a new Gaming PC Build. Pair this with a new Z77 motherboard and a Radeon HD 7850 graphics card and you will kick graphical but in any game you throw at it.

Check out some of the early reviews and benchmarks on the Intel 3570K Processor: cpubenchmark.net | bit-tech.net | hexus.net

Intel Core i5-3570K	4 cores	3.4 GHz clock speed (3.8GHz Turbo)	LGA 1155 Socket

Product Details: *From Intel

Essentials

Status	Launched
Launch Date	Q2'12
Processor Number	i5-3570K
# of Cores	4
# of Threads	4
Clock Speed	3.4 GHz
Max Turbo Frequency	3.8 GHz
Intel® Smart Cache	6 MB
Bus/Core Ratio	34
DMI	5 GT/s
Instruction Set	64-bit
Instruction Set Extensions	SSE4.1/4.2, AVX
Embedded Options Available	No
Lithography	22 nm
Max TDP	77 W

[MSI Z77A-GD65 Z77 DDR3 1600 LGA 1155 Motherboards](#) Price: $179.99

MSI Z77A-GD65 Z77 DDR3 1600 LGA 1155 Motherboards

A very high quality MSI Z77 motherboard that will make overclocking your Intel 3570K processor a breeze. Also it has enough features to make it future proof for years and enough room that this motherboard can fit any peripherals without anything getting in the way. Check out the fine print details below -

Product Details:

ChipsetsNorth BridgeIntel Z77MemoryNumber of Memory Slots4×240pinMemory StandardDDR3 2667*(OC)/ 2400*(OC)/ 2133*(OC)/ 1866*(OC)/1600/ 1333/ 1066Maximum Memory Supported32GBChannel SupportedDual ChannelExpansion SlotsPCI Express 3.0 x163 (16/8/4)PCI Express x14Storage DevicesSATA 3Gb/s4SATA 6Gb/s4 x SATA 6Gb/sSATA RAIDSATA1~6 ports support RAID 0/1/5/10) by Intel Z77Onboard VideoOnboard Video ChipsetNoneOnboard AudioAudio ChipsetRealtek ALC898Audio Channels8 ChannelsOnboard LANLAN ChipsetIntel 82579VMax LAN Speed10/100/1000MbpsRear Panel PortsPS/21 x PS/2 keyboard/mouse portVideo PortsD-Sub + DVIHDMI1 x HDMIUSB 1.1/2.04 x USB 2.0USB 3.02 x USB 3.0S/PDIF Out1 x Optical, 1 x CoaxialAudio Ports6 PortsInternal I/O ConnectorsOnboard USB2 x USB 3.0 + 6 x USB 2.0Onboard 13941 x 1394Other Connectors1 x Multi BIOS Switch
1 x TPM Module connector
1 x Front Panel connector
1 x Front Panel Audio connector
1 x Chassis Intrusion connector
1 x Voice Genie connector (optional)
1 x MultiConnect Panel connector (optional)
1 x V-Check Points Set
1 x Power button
1 x OC Genie button
1 x Reset button
1 x Clear CMOS jumper
CPU x 1 / System x 4 FAN connectorsPhysical SpecForm FactorATXDimensions12.0" x 9.6"Power Pin24 PinFeaturesFeaturesMilitary Class III components: Top quality & stabilityOC Genie II: Auto OC to boost performance in 1 secClickBIOS II: Easy-to-use UEFI BIOS interfaceSuper Charger: fast charge iPad/iPhone/smartphoneTHX TruStudio PRO: deliver the fullest audio experienceSupport USB 3.0 & SATA 6Gb/s

Sapphire Radeon HD 7850 OC 2 GB DDR5 HDMI/DVI-I/Dual Mini DP PCI-Express Graphics Card 11200-01-20G Price: $259.99

Sapphire Radeon HD 7850 OC 2 GB DDR5 HDMI/DVI-I/Dual Mini DP PCI-Express Graphics Card 11200-01-20G

This is an overclocked version of the 7850 for a great price. The reviews for this card have spoken for themselves. Read the neoseeker review for a complete overview and official 'neoseeker' recommended approval of this graphics card.

The Radeon HD 7850 has the same performance to even the GTX 570, however this Radeon HD 7850 holds its spot strong at a much lower price.

Technical Details:

- 1 x Dual-Link DVI
- 1 x HDMI (with 3D)
- 2 x Mini-DisplayPort
- DisplayPort 1.2
- AMD HD3D Technology
- AMD Eyefinity 2.0
- Enhanced Multi-GPU Capabilities
- PCI Express 3.0

From Sapphire: "The Sapphire Radeon HD 7850 OC 2GB"

Output	1 x Dual-Link DVI 1 x HDMI (with 3D) 2 x Mini-DisplayPort DisplayPort 1.2
GPU	920 MHz Core Clock 28 nm Chip 1024 x Stream Processors
Memory	2048 MB Size 256 -bit GDDR5 5000 MHz Effective
Dimension	210(L)x105(W)x35(H) mm Size.
Software	Driver CD

Accessory	CrossFire™ Bridge Interconnect Cable Mini-DP to DP Cable 6 PIN to 4 PIN Power Cable HDMI to SL-DVI Adapter(Full Retail SKU only) HDMI 1.4a high speed 1.8 meter cable(Full Retail SKU only)

Corsair Dominator 8 GB PC3-10666 1333mHz (PC3 10666) 240-Pin DDR3 SDRAM 1.6v Dual Channel DDR3 Memory Kit for Intel and AMD 8 Dual Channel Kit CMP8GX3M2B1333C9 Price: $36.98

The same RAM kit as used in the $500 build above, but with good reason. I chose this newer RAM kit for the reviews soming in as well as its price being much lower than other 8GB RAM kits.

Technical Details

- Ultra-high performance 8GB (2 x 4GB) DOMINATOR kit for Dual Channel processors.
- Speed: PC3-10666 1333mhz
- Timing: 9-9-9-24 Latency
- Voltage: 1.6v
- Pin Out: 240-pin
- Dominator Heat Spreader
- Lifetime Warranty
- Memory Type: DDR3

Western Digital 1 TB Caviar Blue SATA III 7200 RPM 32 MB Cache Bulk/OEM Desktop Hard Drive - WD10EALX Price: $97.53

Western Digital 1 TB Caviar Blue SATA III 7200 RPM 32 MB Cache Desktop Hard Drive - WD10EALX

1 TB Western Digital Caviar Blue hard drives, need I say more? This is a quality hard drive from a quality company and 1TB for a Gaming PC is plenty! This is why I have used this hard drive ever since the prices have dropped. You cannot go wrong here, just check out the performance details below -

Performance Details From Western Digitals' Website:

Rotational Speed	7,200 RPM (nominal)	
	Buffer Size	32 MB
	Load/unload Cycles	300,000 minimum

Transfer Rates

Transfer Rate (Buffer To Disk)	126 MB/s (Max)

Physical Specifications ▲

Formatted Capacity	1,000,204 MB
Capacity	1 TB
Interface	SATA 6 Gb/s

	User Sectors Per Drive	1,953,525,169

Physical Dimensions ▲

English

	Height	1.028 Inches
	Depth	5.787 Inches
	Width	4.00 Inches
	Weight	1.52 Pounds

Metric

	Height	26.1 mm
	Depth	147 mm
	Width	101.6 mm
	Weight	0.69 kg

Environmental Specifications ▲

Shock

Operating Shock (Read)	30G, 2 ms	
Non-operating Shock	300G, 2 ms	

Acoustics

Idle Mode	28 dBA (average)	
Seek Mode 0	33 dBA (average)	

Temperature (English)

Operating	32° F to 140° F	
Non-operating	-40° F to 158° F	

Temperature (Metric)

Operating	-0° C to 60° C	
Non-operating	-40° C to 70° C	

Electrical Specifications ▲

Current Requirements

Power Dissipation		
Read/Write	6.80 Watts	

	Idle	6.10 Watts
	Standby	0.70 Watts
	Sleep	0.70 Watts

Product Details

- WD Caviar Blue hard drives have a multitude of features to deliver rock solid performance and ultra-cool and quiet operation.
- 3rd generation SATA interface for 6 GB/s maximum data transfer rates.
- WhisperDrive technology minimizes noise to levels near the threshold of human hearing.
- 1 TB capacity holds up to 200,000 digital photos, 250,000 MP3 files, and 120 hours of HD video.
- Ships in Certified Frustration-Free Packaging

Corsair Enthusiast Series 750-Watt 80 Plus Bronze Certified Power Supply Compatible with Intel Core i3, i5, i7 and AMD platforms - CMPSU-750TXV2 Price: $106.98

Corsair Enthusiast Series 750-Watt 80 Plus Bronze Certified Power Supply Compatible with Intel Core i3, i5, i7 and AMD platforms - CMPSU-750TXV2

As said previously - "*plenty of wattage to spare and a quality PSU all in one for a great price. Yes, I am re-using the Corsair Enthusiast series PSU, because it just plain and simple a good PSU choice.*"

Product Details:

- Conforms to the latest ATX12V v2.31 and EPS 2.92 standards, and is backward compatible with the ATX12V 2.2 and ATX12V 2.01 standards
- A dedicated single +12V rail offers simple configuration and maximum compatibility with the latest graphics cards and other components
- An ultra-quiet, 140mm double ball-bearing fan delivers excellent airflow with exceptionally low noise levels by varying fan speed in response to temperature
- Complies with the European Union ErP Directive (2009/125/EC) so the power consumption of the whole system, in either standby or off mode, can be less than 1W when used with a properly configured, ErP-compliant motherboard

- 80 PLUS® Bronze certified, delivering up to 85% energy efficiency under real-world load conditions
- Active Power Factor Correction (PFC) with PF value of 0.99
- Universal AC input from 90~264V
- Over-voltage, under-voltage, over-current, and short circuit protection provide maximum safety for your critical system components
- High-quality Japanese capacitors provide uncompromised performance and reliability
- A five year warranty and lifetime access to Corsair's legendary technical support and customer service
- Safety Approvals: cTUVus, CE, CB, FCC Class B, TÜV, CCC, C-tick

Corsair Carbide Series 300R Mid-Tower Gaming Case - CC-9011014-WW Price: $60.80

Corsair Carbide Series 300R Mid-Tower Gaming Case - CC-9011014-WW

I hardly ever re-use computer cases in builds, but I thought I would re-use the Corsair Carbide 300R case simply because of it being featured in the recent Toms Hardware article "Five Gaming Cases Between $80 And $120, Reviewed" that concluded that the relative efficiency versus the relative price of this case to be the highest out of all five cases reviewed.

Furthermore, the Corsair Carbide 300R case is in fact not between $80 - $120 right now, but currently is being sold for $60.80! So to me, this is a true reflection of a great price per value purchase.

The Corsair Carbide 300R case has great cooling, there is tons of room for any expansion, you can install up to five side fans plus two side 120mm fans. By using this case you can be guaranteed that you can keep everything as cool as ca be not only now, but with plenty of room for multi graphics card (in case you decide crossfire later on), then you can be assured they will fit and keep cool.

Product Details:

- WarrantyTwo years
- Dimension19.1" x 8.3" x 17.7"
- MB SupportATX, mATX
- Expansion Slots7
- Form FactorMid-tower
- MaterialSteel structure with molded ABS plastic accent pieces
- Drive Bays(x3) 5.25", (x4) 3.5"/2.5" Drive Caddies
- Cooling(x6) 120mm/140mm fan mounts, (x1) 120mm fan mounts, Includes (x1) front-mounted 120mm fans and (x1) rear 120mm fan

- Front I/O(x2) USB 3.0, (x1) Headphone, (x1) MIC, Power, Reset
- Power SupplyATX (not included)

- Room for graphics cards up to 450mm long
- USB 3.0 front panel connectors
- Built-in compatibility for SSDs in the four hard drive bays
- Keep your system cool with up to 7 fan mount locations
- Easily accessible dust filters keep the cool air flowing over your valuable components
- Compatible with ATX and mATX motherboards
- Install or upgrade your CPU heatsink quickly with the easy-access backplate cutout
- Optimize airflow and keep your system neat and tidy using the intelligent cable management system.

Ports and Connectivity

- **USB Ports:** 2

Cases and Expandability

- **Size (LWH):** 19.1 inches, 17.7 inches, 8.3 inches
- **Weight:** 15.9 pounds

Asus 24xDVD-RW Serial ATA Internal OEM Drive DRW-24B1ST (Black) Price: $17.99

Asus 24xDVD-RW Serial ATA Internal OEM Drive DRW-24B1ST (Black)

I had to finally give in and change the optical drive brand, a big deal? No its not a big deal, but the prices on the previous Sony drive went up by about $5 so I decided to go with this basic ASUS $17.99 optical drive, which actually used to be my older recommendation. Used by many, and the usual not so special DVD/CD reader/writer. You can read the READ and WRITE speeds below -
Product Features - DVD-ROM Access Time - 140ms - CD-ROM Access Time - 150ms - Cache - 1.5MB - WRITE Speed - DVD+R 24X DVD+RW 8X DVD-R 24X DVD-RW 6X CD-R 48X CD-RW 32X DVD+R DL 12Xb DVD-R DL 12X DVD-RAM 12X READ Speed DVD-ROM 16X CD-ROM 48X

$500 - $1000 Gaming PC Build Additions / Swap Suggestions

Note: Prices are in additional $ amounts... These additions are to act as additional or supplemental hardware the the Gaming PC Build Recipe Above

Add a SSD Boot Drive: [*Kingston HyperX 3K 90 GB SATA III 2.5-Inch 6.0 Gb/s Solid State Drive SH103S3/90G*](#) *= + **$109***
- Can be used for installing OS to boot quick on this 90GB SSD

Add a Blu-Ray Optical Drive: [*LG Electronics WH12LS30 12X Blu-ray SATA Writer Drive*](#) *= + **$79** - Perhaps you are a movie buff? Backup Media etc.*

Better CPU Cooler (To Overclock

Intel 2500K): [*Cooler Master Hyper 212 EVO CPU Cooler (RR-212E-20PK-R2)*](#) *= + **$33.87** Are you planning on overclocking very soon? Then you may want to indulge in this well rated CPU cooler to keep your CPU a tad cooler, thus increasing overclock potential.*

Do CROSSFIRE with another [*Sapphire Radeon HD 7850 OC 2 GB DDR5 HDMI/DVI-I/Dual Mini DP PCI-Express Graphics Card 11200-01-20G*](#) *= + **$259***

Additions / Part Swaps Overview

The additions and part swaps section is to give those interested, an idea of what other hardware they could add / swap if they wanted to upgrade in the future of have some extra cash to spend right now.

Above there is a nice **Kingston SSD 90GB** drive that could be used as an operating system drive to boot up your computer faster as well as a few games. The **Cooler Master Hyper 212 Evo cooler** as

an affordable CPU cooler that can help keep your CPU cooler while trying to overclock, this in turn can increase the potential overclocking frequencies. You could add an **LG Electronics Blu-Ray drive** if you have a collection of Blu-Ray movies or want to "back-up" anything onto Blu-Ray disks. OR another suggestion above is to add a second **Sapphire Radeon HD 7850** graphics in Crossfire (a great thing to keep in mind for future upgrading potential).

$1000 - $1500 GAMING PC BUILD

Monthly Gaming PC Build ($1448): June 2012

Gaming PC Build Recipe:

Game with Extreme settings at resolutions of 2560x1600

All hardware is linked to Amazon.com - You Can also try Amazon.ca (CANADA) • Amazon.co.uk (UK) Newegg.com (US) • Newegg.ca (CANADA) to shop for these parts.

Processor: Intel Core i5 3570K Processor 3.4 4 BX80637I53570K Price: $227.99 **CPU Cooler** (For OverClocking)**:** Cooler Master Hyper 212 EVO CPU Cooler (RR-212E-20PK-R1) Price: $33.87	**Motherboard:** ASUS Intel Z77 ATX DDR3 2400 LGA 1155 Motherboard P8Z77-V PRO Price: $209.99
Graphics Card: Diamond AMD Radeon HD 7970 PCIE 3G GDDR5 Video Graphics Card 7970PE53G Price: $459.99	**RAM:** Corsair Vengeance Blue 16 GB DDR3 SDRAM Dual Channel Memory Kit CMZ16GX3M4A1600C9B Price: $97.98
Hard Drive: Western Digital 1 TB Caviar Blue SATA III 7200 RPM 32 MB Cache Bulk/OEM Desktop Hard Drive - WD10EALX Price: $97.53 **SSD Hard Drive:** Mushkin Chronos 60 GB SATA 6.0 Gb-s 2.5-Inch Solid State Drive (MKNSSDCR60GB) Price: $67.99	**Power Supply:** Corsair HX Professional Series 750-Watt 80 Plus Certified Power Supply Compatible with Core i7 and Core i5 - CMPSU-750HX Price: $134.99
Computer Case: NZXT ca-ph410-b2 Phantom 410 Mid Tower USB 3.0 Gaming Case Black with White Trim Price: $99.99	**Optical Drive:** Asus 24xDVD-RW Serial ATA Internal OEM Drive DRW-24B1ST (Black) Price: $17.99
Estimated Price: $1448 (Gaming for years to come!)	

Overview: Gaming PC Build ($1000 - $1500)

Looking back at the hardware from last months $1500 build, the prices for the hardware overall has actually gone down to $1433 from the previous $1473. Since there have not been any hardware releases over the past month that would take precedence over any of the base hardware, this is the point now where I look at the previous hardware and decide what I can improve from.

So far from the hardware from May, we have a top of the line build where it can be hard to think of anything of benefit - such as we already have what I would think to be the top gaming processor the Intel 3570K, a quality high end Gigabyte motherboard, a high end Raden HD 7970 graphics card, more than plenty of RAM at 16GB, an upgraded computer case from the $1000 build - the Corsair 400R and even a modular quality power supply unit. Also, there is also a Cooler Master Evo 212 CPU cooler and a Crucial 64GB Solid State Drive included in the base build!!

The conclusion here? Well everything is pretty much staying the same for this build as it is still running strong. One exception may be the switch of the graphics card for a minor performance increase on the GTX 680 graphics card, but supplies on these seem to be slim and I have decided it is not worth it yet., so maybe next month.

What I did decide to do with the saved cash this month was upgrade the motherboard to a nice ASUS P8Z77-V-PRO that includes a wifi adapter and I also swapped the computer case for a NZXT Phantom Black & White (you can choose the color - Black and White + Gunmetal are the new colors).

In the end, the June 2012 $1500 build still costs less than last months and you can be sure that it will last you and keep you gaming for years to come.

Overview: The Gaming PC Hardware

Intel Core i5 3570K Processor 3.4 4 BX80637I53570K Price: $227.99

Intel Core i5 3570K Processor

"A fresh face to the mid and high range gaming PC builds processor spots, the Intel 3570K is the new avenger for a new Gaming PC Build. Pair this with a new Z77 motherboard and a Radeon HD 7850 graphics card and you will kick graphical but in any game you throw at it." - As per stated in the above build.

Check out some of the early reviews and benchmarks on the Intel 3570K Processor: cpubenchmark.net | bit-tech.net | hexus.net

Intel Core i5-3570K	4 cores	3.4 GHz clock speed (3.8GHz Turbo)	LGA 1155 Socket

Product Details: *From Intel

Essentials	
Status	Launched
Launch Date	Q2'12
Processor Number	i5-3570K
# of Cores	4
# of Threads	4
Clock Speed	3.4 GHz
Max Turbo Frequency	3.8 GHz
Intel® Smart Cache	6 MB

Bus/Core Ratio	34
DMI	5 GT/s
Instruction Set	64-bit
Instruction Set Extensions	SSE4.1/4.2, AVX
Embedded Options Available	No
Lithography	22 nm
Max TDP	77 W

[Cooler Master Hyper 212 EVO CPU Cooler (RR-212E-20PK-R1)](#) Price: $33.87

Cooler Master Hyper 212 EVO CPU Cooler

CPU coolers do not change too often until there are changes to CPU socket sizes, so this Cooler Master Hyper 212 EVO CPU cooler is one of the higher rated and affordably so CPU coolers you can purchase. Sure, the Intel 3570K processor comes with a stock cooler, but that cooler may not be able to match the cooling needs of overclocking if you decide to do so. If you are not planning to overclock, then you do not really need this cooler, but at only $30 it might be a worthwhile addition to keep your CPU as cool as possible, which in turn increases your overclocking speed potential.

Product Details:

CPU Socket	Intel Socket:LGA 2011 / 1366 / 1156 / 1155 / 775 *AMD Socket:FM1 / AM3+ / AM3 / AM2+ / AM2
CPU Support	Intel:Core™ i7 Extreme / Core™ i7 / Core™ i5 /

	Core™ i3 / Core™2 Extreme / Core™2 Quad / Core™2 Duo / Pentium / CeleronAMD:FX-Series / A-Series / Phenom™ II X4 / Phenom™ II X3 / Phenom™ II X2 / Phenom™ X4 / Phenom™ X3 / Athlon™ II X4 / Athlon™ II X3 / Athlon™ II X2 / Athlon™ X2 / Athlon™ / Sempron™
Dimension	120 x 80 x 159 mm (4.7 x 3.1 x 6.3 in)
Heat Sink Dimensions	116 x 51 x 159 mm (4.6 x 2.0 x 6.3 in)
Heat Sink Material	4 Direct Contact Heat Pipes / Aluminum Fins
Heat Sink Weight	465g (1.03 lb)
Heat Pipes Dimensions	ø6mm
Fan Dimension	120 x 120 x 25 mm (4.7 x 4.7 x 1 in)
Fan Speed	600 – 2,000 RPM (PWM) ± 10%600 – 1,600 RPM (PWM) ± 10% (EU Version)
Fan Airflow	24.9 – 82.9 CFM ± 10%24.9 – 66.3 CFM ± 10% (EU Version)
Fan Air Pressure	0.3 – 2.7mm H_2O ± 10%0.3 – 1.7mm H_2O ± 10% (EU Version)
Fan Life Expectancy	40,000hrs
Fan Noise Level (dB-A)	9 - 36 dBA9 - 31 dBA (EU Version)
Bearing Type	Long Life Sleeve Bearing
Connector	4-Pin

Fan Rated Voltage	12 VDC
Fan Rated Current	0.22A0.19A (EU Version)
Power Consumption	2.64W2.28W (EU Version)
Fan Weight	104g (0.23 lb)

- Well-balanced cooling performance provides fin optimizations with perfect balance between high and low speed operations.
- Wide-range PWM fan with unique wave-shaped blade design for excellent airflow.
- 4 Direct Contact heat pipes with the patented (Continuous Direct Contact) technology - creating a perfect, sleek surface for heat conduction.
- Versatile all-in-one mounting solution supporting the latest Intel LGA 1366 /1155 and AMD FM1 / AM3+. Includes the LGA 2011 mounting bracket.

ASUS Intel Z77 ATX DDR3 2400 LGA 1155 Motherboard P8Z77-V PRO Price: $209.99

ASUS Intel Z77 ATX DDR3 2400 LGA 1155 Motherboard P8Z77-V PRO

As quoted from Tech Radars review article the Asus P8Z77-V-Pro is - "A*n update to our favourite Z68 board in Z77 flavours. Mmm, tasty"*.

There is much to be said about this premium ASUS motherboard. For one, it has Wi-Fi GO, which prvoides onboard wifi. Fan Xpert 2, which is an auto tune function for optimizing fan speeds for each individual fan and much more, just check out the product details below -

Product Details:

ChipsetsNorth BridgeIntel Z77MemoryNumber of Memory Slots4×240pinMemory StandardDDR3 2600(O.C.)/2400(O.C.)/2200(O.C.)/2133(O.C.)/2000(O.C.)/1866(O.C.)/1800(O.C.)/1600/1333Maximum Memory Supported32GB

Channel SupportedDual Channel

Expansion SlotsPCI Express 3.0 x162 (x16/0 or x8/x8)PCI Express 2.0 x161 (@x4)PCI Express x12

PCI Slots2

Storage DevicesSATA 3Gb/s4SATA 6Gb/s4 x SATA 6Gb/sSATA RAID2 x SATA 6Gb/s ports with RAID 0,1,5,10 support
4 x SATA 3Gb/s ports with RAID 0,1,5,10 supportOnboard VideoOnboard Video ChipsetNoneOnboard AudioAudio ChipsetRealtek ALC892Audio Channels8 ChannelsOnboard LANLAN ChipsetIntel 82579VMax LAN Speed10/100/1000MbpsWireless LANWiFi IEEE 802.11b/g/nRear Panel PortsPS/21 x PS/2 keyboard/mouse portVideo PortsD-Sub + DVIHDMI1 x HDMI

DisplayPort1 x DisplayPort

USB 1.1/2.02 x USB 2.0

USB 3.04 x USB 3.0

S/PDIF Out1 x Optical

Audio Ports6 Ports

Internal I/O ConnectorsOnboard USB4 x USB 3.0 + 8 x USB 2.0Other Connectors1 x CPU Fan connector(s)
4 x Chassis Fan connector(s)
1 x Optional Fan connector(s)
1 x S/PDIF out header(s)
1 x 24-pin EATX Power connector(s)
1 x 8-pin ATX 12V Power connector(s)
1 x Front panel audio connector(s) (AAFP)
1 x System panel(s)
1 x MemOK! button(s)
1 x TPU switch(es)
1 x EPU switch(es)
1 x Clear CMOS jumper(s)
1 x USB BIOS Flashback button(s)Physical SpecForm FactorATXDimensions12.0" x 9.6"Power Pin24 PinFeaturesFeaturesDual Intelligent Processors 3 with SMART DIGI+ Power ControlSMART DIGI+ - Get a Blazing Performance Boost and CPU Wattage Cut in Half!Wi-Fi GO! - DLNA Streaming and Remote Desktop Made EasyFan Xpert 2 - The Most Customizable Fan ControlsUSB 3.0 Boost - Faster USB 3.0 Transmission with UASPQuad-GPU SLI and Quad-GPU/3-Way CrossFireX Support!

Diamond AMD Radeon HD 7970 PCIE 3G GDDR5 Video Graphics Card 7970PE53G Price: $459.99

Diamond AMD Radeon HD 7970 PCIE 3G GDDR5 Video Graphics Card

Used again as it is still in the running on the top of the heap of graphics cards. That is with the exception of the new GTX 680, which at the moment is kind of hard to get and slightly more expensive. This Radeon HD 7970 graphics card will provide game play at extreme settings in any game at resolutions easily up to 2560x1600 resolutions. Read the full review of the AMD Radeon HD 7950 graphics card brought to you by Tom's Hardware. What we have here specifically is the Diamond branded version of the AMD Radeon HD 7950 graphics card. This card should last a long while in the gaming market and this build most certainly leaves you with the ability to add crossfire to later on by adding another one of these into the mix.

Product Details:

Performance	
GPU :	7950
ASIC Core :	Tahiti PRO
Core Clock :	800 MHz
BUS :	PCI Express 3.0 x16
Ports :	1 Dual Link DVI, 1 Single Link DVI, HDMI and 2 Mini Display Port
Cooling :	Active - FanCooler
MFG Process :	28nm process technology
Stream Processors :	2048
Video Quality	

CrossFire :	CrossFire X
Direct-X :	DirectX® 11.1 capable graphics
Open GL :	OpenGL 4.2
Max Resolution Analog :	VGA Max resolution 2048x1536
Max Resolution Digital :	HDMI 1.4a Max resolution: 4096x3112
HDR F.Point Rendering :	128
HDR Integer :	
Standard Slot Solution :	DOUBLE
Anti Aliasing Modes :	Up to 24x multi-sample and super-sample anti-aliasing modes
Antisotropic Modes :	16x angle independent anisotropic texture filtering
Texture Support :	HDR texture compression

Memory

Memory Clock :	1250 MHz
Memory Configuration :	64Mx32
Memory Type :	GDDR5

Memory Bandwidth :	5.0 Gbps
Memory Size :	3072MB
Memory Interface :	384-bit interface
RAMDAC :	400

Display Support

HDMI :	HDMI 1.4a with support for stereoscopic 3D
HDMI MODE :	1.4a
Native Display Support :	DisplayPort 1.2 Max resolution: 4096x2160 per display
Dual Display support :	YES

Corsair Vengeance Blue 16 GB DDR3 SDRAM Dual Channel Memory Kit CMZ16GX3M4A1600C9B Price: $97.98

Corsair Vengeance Blue 16 GB DDR3 SDRAM Dual Channel Memory Kit CMZ16GX3M4A1600C9B

People keep telling me 16GB is too much! But come on this is a $1500 gaming PC build that will last you years. This is a package of four sticks of 4GB RAM in a package to total 16GB of RAM. An excessive amount of RAM? Yes it is, but you can assure the future proofness of this to go with the other fantastic hardware included in this $1500 build. If you can find a package of RAM with two 8GB stick to total the 16Gb at a reasonable price, that would be even better, but you just cannot beat this price for 16GB.
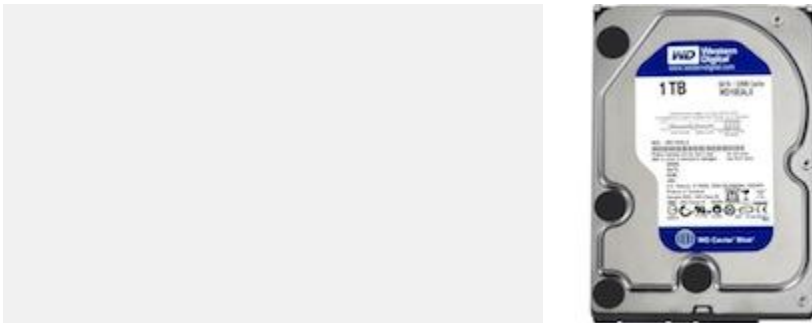
If you feel you do not need 16GB, then you could save about $40 and get the 8Gb kits included in the above $500 & $1000 builds and you will do just fine!

Product Features:

- Designed for Sandy Bridge Platform and AMD Platforms
- 16GB (4 x 4GB) DDR3 for AMD, Intel Dual Channel processors and Sandy Bridge 2nd Generation Intel Core platforms
- Intel XMP (Extreme Memory Profile) Support
- Speed: 1600mhz
- Timing: 9-9-9-24
- Lifetime Warranty
- Pin Out: 240-pin
- Voltage: 1.5v

[Western Digital 1 TB Caviar Blue SATA III 7200 RPM 32 MB Cache Bulk/OEM Desktop Hard Drive - WD10EALX]() Price: $97.53

Western Digital 1 TB Caviar Blue SATA III 7200 RPM 32 MB Cache Bulk:OEM Desktop Hard Drive - WD10EALX

When comparing all of the available 1 TB drives, this one seems to stick out the most for me in terms of its overall quality and price. For a gaming PC, this Western Digital Caviar Blue 7200 RPM 1Tb drive. Do you need more or less space? Well, this is a question that ultimately comes down to you. Do you just game? Store movies? Music? Don't know how much space you need? Well starting at 1TB is by far not skimping on space and keep in mind upgrading and adding a hard drive later is as simple as plugging it in (for the most part).

Performance Details From Western Digital's Website:

Rotational Speed	7,200 RPM (nominal)	
	Buffer Size	32 MB
	Load/unload	300,000

	Cycles	minimum

Transfer Rates

	Transfer Rate (Buffer To Disk)	126 MB/s (Max)

Physical Specifications		▲
	Formatted Capacity	1,000,204 MB
	Capacity	1 TB
	Interface	SATA 6 Gb/s
	User Sectors Per Drive	1,953,525,169

Physical Dimensions		▲

English

	Height	1.028 Inches
	Depth	5.787 Inches
	Width	4.00 Inches
	Weight	1.52 Pounds

Electrical Specifications		▲

Current Requirements

	Power Dissipation	
	Read/Write	6.80 Watts

	Idle	6.10 Watts
	Standby	0.70 Watts
	Sleep	0.70 Watts

[Mushkin Chronos 60 GB SATA 6.0 Gb-s 2.5-Inch Solid State Drive (MKNSSDCR60GB)](#) Price: $67.99

Mushkin Chronos 60 GB SATA 6.0 Gb-s 2.5-Inch Solid State Drive (MKNSSDCR60GB)

I have switch the Solid State Hard drive this month to include this Mushkin Enhanced Chromos 60Gb SSD. This SSD offers a great value per GB and comes with quality. Use this drive for your Operating System and you will get super fast boot times!

Mushkin Enhanced Chronos	90 GB
Sequential Read	560 MB/s
Sequential Write	510 MB/s
Power Consumption (Active)	3 W
Power Consumption (Idle)	1 W

Product Details:

- Max Sequential Read Up to 525MB/s and Max Sequential Write Up to 495MB/s
- Up to 85,000 IOPS Random 4KB Write
- SATA 3.0 (6Gb/s) interface (backwards compatible with SATA 3Gb/s and 1.5Gb/s)
- TRIM support (OS/driver support required)
- 3.5" desktop adapter bracket included
- Access Time <0.1ms
- Asynchronous MLC NAND

- Built-in BCH ECC (Up to 55 bits correctable per 512 byte sector)

Technical Details

- **Brand Name**: Mushkin
- **Model**: MKNSSDCR60GB
- **Warranty**: 3-year warranty
- **Form Factor**: 2.5-Inch

[Corsair HX Professional Series 750-Watt 80 Plus Certified Power Supply Compatible with Core i7 and Core i5 - CMPSU-750HX](#) Price: $134.99

Corsair HX Professional Series 750-Watt 80 Plus Certified Power Supply Compatible with Core i7 and Core i5 - CMPSU-750HX

For only $134.99, this PSU is both a quality brand and modular. You could use the same Corsair Enthusiast PSU as used in the $1000 build above and be just fine, however you cannot beat the finesse of a modular PSU. Clearing cables both looks nice and clears space for more efficient air flow to keep your gaming PC cooler. The only downside is that a modular PSU does come at a price premium, so if you feel just as good purchasing the same 750 Watt PSU as seen in the $1000 build you could save a few bucks and do just fine.

Product Details:

- Modular Cable design allows you to use only those cables needed & saves you space inside your case
- Over Current / Voltage / Power Protection, Under Voltage and Short Circuit Protection provides Maximum Safety for your critical system components
- 80 Plus Certified for 80%+ Energy Efficiency at 20%, 50% and 100% Load Condition for less Heat Generation and Lower Energy Bill
- Dedicated Single +12V Rail Offers Maximum Compatibility with Latest Components
- High quality Japanese Capacitors provide Uncompromised Performance and Reliability

[NZXT ca-ph410-b2 Phantom 410 Mid Tower USB 3.0 Gaming Case Black with White Trim](#) Price: $99.99

NZXT Phantom 410 Toms Hardware Approved

NZXT Phantom 410 Mid Tower Gaming Case Black with White Trim

I have included the NXT Phantom cases is a couple of previous builds and this is because it keeps coming up again and again in reviews, and NZXT keeps adding new cases to this lineup! This case even won the Toms Hardware Approved stamp of approval in their recent article "Five Gaming Cases Between $80 And $120, Reviewed". This one in particular is one of the newer colors "Black with White Trim", there is also another one called 'Gunmetal", which has a very slick and smooth look to it.

Product Details:

- Clearance for top 240mm dual radiator for water cooling solutions / Wire management support up to 25mm space for easy cable management
- Adjustable interior pivot 120mm/140mm fan slot for directional air flow / Single 120mm/140mm side fan with acrylic window for interior viewing and cooling
- Removable HDD cage to allow more room for extended video cards / Screw-less 5.25" and HDD trays that secures 2.5" SSD
- Innovative right mounted HDD rails for easy hard drive replacement / Cooling capability of up to eight fans (2x 120mm and 1x 140mm LED fan included)
- 30W 3-step fan control for setting up your system for silence or performance / Innovative right mounted HDD rails for easy hard drive replacement
- DRIVE BAYS: 3 EXTERNAL 5.25" DRIVE BAYS / 6 INTERNAL 3.5" Slots / Screwless Rail Design / MATERIAL(S): Steel / EXPANSION SLOTS: 7 / WEIGHT: 9 kg / MOTHERBOARD SUPPORT: ATX, MICRO-ATX, MINI-ITX
- case type: mid tower steel / front panel material: plastic / dimensions (w x h x d): 215 x 516 x 532 mm / vga clearance maximum: 305mm (w/o fan), 280mm (installed), 230mm (full pivot)
- cooling system: front, 2x120mm or 1 x 140mm (1x120mm included) /rear, 1 x 120mm (included) /side, 1 x 120mm or 1 x 140mm /top, 2 x 120/140mm (1 x 140mm included)

Ports and Connectivity

- **USB 2.0 Ports:** 2

Cases and Expandability

- **Size (LWH):** 20.95 inches, 8.47 inches, 20.2 inches
- **Weight:** 19.85 pounds

Asus 24xDVD-RW Serial ATA Internal OEM Drive DRW-24B1ST (Black) Price: $17.99

Since I have used the same optical drives for all builds this is quoted from the above builds -

"Asus 24xDVD-RW Serial ATA Internal OEM Drive DRW-24B1ST (Black)

I had to finally give in and change the optical drive brand, a big deal? No its not a big deal, but the prices on the previous Sony drive went up by about $5 so I decided to go with this basic ASUS $17.99 optical drive, which actually used to be my older recommendation. Used by many, and the usual not so special DVD/CD reader/writer. You can read the READ and WRITE speeds below -"

Product Features - DVD-ROM Access Time - 140ms - CD-ROM Access Time - 150ms - Cache - 1.5MB - WRITE Speed - DVD+R 24X DVD+RW 8X DVD-R 24X DVD-RW 6X CD-R 48X CD-RW 32X DVD+R DL 12Xb DVD-R DL 12X DVD-RAM 12X READ Speed DVD-ROM 16X CD-ROM 48X

$1000 - $1500 Gaming PC Build Additions / Swap Suggestions

Note: Prices are in additional $ amounts *These additions are to act as supplemental hardware the the $1000-$1500 Gaming PC Build recipe above*

More Hard Drive Space (RAID if you like) [Western Digital 1 TB Caviar Blue SATA III 7200 RPM 32 MB Cache Bulk/OEM Desktop Hard Drive - WD10EALX](#) = + **$97.53**

Double the Graphics Power w/ Crossfire add one more: [*Diamond AMD Radeon HD 7970 PCIE 3G GDDR5 Video Graphics Card 7970PE53G*](#) = + ***$459.99***

Better CPU Cooler (To Overclock Intel 3570K): [*Corsair Hydro Series H80 High Performance Liquid CPU Cooler (CWCH80)*](#) = + ***$90.73***

Larger SSD: [*Mushkin Enhanced Callisto Deluxe 240 GB Solid State Drive MKNSSDCL240 GB-DX (Black)*](#) = + ***$299*** *(Excludes previously included SSD)*

Overview: Additions / Part Swaps

Looking to add a little more to an already great gaming PC build? Then I have included the above additions and part swaps to give you an idea of what else you could add to your build. You may need a ton of more hard drive space wether it be archiving stuff into another 1TB hard drive or wanting to put more onto a larger solid state drive. Perhaps you want to overkill on the graphics cards and get two!? Or you may want a liquid CPU cooler solution?

Concluding June 2012's Gaming PC Builds:

This was an interesting month of price changes, reviews of the new Ivy Bridge and even cases! I feel that I have been able to really polish these builds and get the most price per performance. Even though the high end $1500 build is relatively similar to that of May's builds, I have been able to upgrade to a premium motherboard, better solid state drive and did a slight change in the computer case choice.

No matter the build you choose I hope that you enjoy building it as much as you enjoy gaming on it. If you have any questions please do not hesitate to ask me via the comments below or through my e-mail using the contact form.

Also, as I said earlier in this article I have literally just started advertising the [Newb Computer Build Facebook Page](#), so please if you feel ever inclined like and participate as I hope to actually use it.