

Research paper on build a computer

[Entertainment](#), [Video Games](#)



Now, it's time for me to buy a new computer. I have pretty specific requirements and that's why, instead of buying a laptop computer, I have chosen to buy a desktop PC. This PC will be built by me from the parts that I will buy separately. This approach suits me because I will be able to choose the parts with such specifications, which will be tailored to my needs. I need to have a computer for gaming and partially for design; additionally I would like to watch movies on it. Gaming will require high performance and high quality multimedia devices, besides I would like to have big enough screen. Further I will describe each component of the PC that I will have to buy, include pictures, and describe each of them.

The first would be basically the monitor. I would prefer slightly bigger than medium sized and I have chosen 23" Dell UltraSharp U2312HM Black. The size is pretty good – 23 inches. It has high resolution and bright picture. Monitor is basically used to show the outgoing signal from the PC.

Estimated Price: \$220. 00

The Second component would be case in which all the electronic components will be installed. I do not like any unnecessary features. I would like it to be black, because I have a black monitor. I have chosen CoolerMaster CM 690 II Advanced, because it will look nice and have a good cooling system. This case already includes a power supply.

Estimated price is \$120. 00

Next I will choose a mouse and a keyboard. They are used for information input. As to the mouse, I would like to have wireless one. I have chosen which is pretty cheap (\$14. 00) and perfectly suits my color scheme.

Keyboard should be really good, to avoid any discomfort while typing, besides I wanted it to be as much functional as possible. I have chosen Genius Emperor Pro which costs about \$66. 00.

Estimated Price for both is \$80. 00.

I will need to listen to the music or have Skype video calls. For those reasons I need to have a webcam and speakers. If the webcam won't have a built in microphone, I will have to buy it.

Estimated Price for the webcam is \$85. 00.

Now I need to choose Speakers. They are used for audio signal output from the sound card. I would choose simple and cheap speakers, but I like to listen to music and high quality of audio is very important for me. I choose to buy 5+1 audio system with 5 speakers and a subwoofer, which generates low frequency audio signal. I have chosen Genius SW-HF 5. 1, because it's 5. 1 system and has pretty good sound.

Estimated price is \$80. 00.

In order to play CD and DVD discs I will need DVD drive. I need to choose it to suit my color scheme, so it should be black. I have picked ASUS DVD-RW for 20 dollars. It will enable me to burn my own CD and DVD discs.

Now I already have all the input and output devices that I will need and it is time to think about the main components which will be hidden in the case and will be doing everything.

These components are: mother board, processor, operating memory (RAM), video adaptor, hard drive and audio adaptor. I have chosen the motherboard MSI Z77A-G43, which already has a built-in, high quality audio adaptor. The motherboard should be installed into the case and all the components should

be connected to it.

Approximate price is \$100. 00.

The next step is choosing a processor. It is a small chip which makes very big number (billions) of simple calculations per second and processes all the information on basic level. I have chosen Intel i5, because it will be enough to handle most of the tasks. Its frequency is 3. 4 GHz, which means that it does 3 billion and 400 million calculations per second and it has 4 cores, which means that it can do 4 separate tasks at a time.

Estimated price \$235. 00.

When the processor is working, it is getting very hot and needs to be cooled down. I will need to buy a cooler and install it on the processor. I have chosen Enermax ETS-T40-TA, which costs approximately 60. 00 dollars.

Now I have to get a hard drive. This component is used for saving all the information that is in the computer. I wanted it to have a high capacity, that is why, I have chosen Seagate SV 35 which has 3 TB if capacity, which means that it, can contain approximately 1000 DVD movies on it.

Approximate Price of this hard drive is \$150. 00.

Now we have to install RAM (Operating Memory) which is used for saving information when the processes are running. Computer needs RAM, because it is much faster than HDD and information exchange can be faster. The capacity of ram also determines the number of applications that can be launched at the time or the number of processes that can run at once. I have chosen Kingston DDR3 RAM with 8 GB capacity, because it will be enough for most of the processes and tasks and if I will need more, I will be able to add memory anytime.

Approximate price is \$60. 00.

The last component I have to buy is a video adaptor. It is used for converting digital signal into analogue and delivering it to the monitor. It has its own memory and processor and depending on their specifications can work faster or slower. I have decided to buy Asus PCI-Ex Radeon HD7850 2048MB. It has 2 GB of built in video memory, which is enough for most of the modern games and demanding multimedia processes such as video editing and creating 3d animation. I am not even talking about watching movies.

Approximate price is \$220. 00.

The total Price of building this PC will be approximately 1530 dollars. This is pretty good price for a computer with such specification, which will be able to handle most of the processes. It will be a good workstation for both, gaming and working.

References

- How to Build a Computer from Scratch, Lesson 1: Hardware Basics.

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<http://lifehacker.com/5826509/how-to-build-a-computer-from-scratch-lesson-1-hardware-basics>

- Parts of a Computer. Retrieved from:

<http://windows.microsoft.com/en-US/windows-vista/Parts-of-a-computer>