Computer parts diagram

What Computer Parts do you need to build a PC, you ask? Does this mean you want to build your own PC? That is absolutely splendid! Building your own Computer from individual PC Components has so many benefits compared to just going out and buying a pre-built PC:. The anticipation of the individual parts being delivered to your house, the shiny boxes with all the different components in them, not to mention researching what parts you actually need, which you are doing right now! By building your own Computer you gain a lot of insight into the inner workings of Hardware Components and how everything fits together. Knowing the ins and outs of assembling a Computer and what Parts a Computer needs will also let you upgrade your Computer in the future. Another very important factor is optimization. Knowing how a Computer works also enables you to optimize it as much as possible for your type of work. You can optimize by buying the best parts for your specific workloads, be it Gaming, 3D Rendering , Modeling , Graphic Design , Video Editing or so many other purposes you can use a Computer for. Building your own computer also is a lot cheaper than getting a pre-built PC. If you already have a grasp on what general type of Computer you need , what specific Parts do we need to build a PC? It can be opened and closed and usually has pre-defined areas with screws and holes where all the other Components are supposed to be placed and attached to. Usually, you can think of a PC Case as a black or white Box with some buttons on top. This is where all of your components will fit into when you are done building your PC. It is like a central hub that manages and connects all of your other Parts. There are also lots of little building blocks like transistors, capacitors, jumpers, and lots of other tiny parts, that all go towards making your different hardware components work well together. This is usually the first step in picking new parts for your own pc build. Pick a CPU, check what socket it has, and then pick a compatible Motherboard. Almost everything you do on a computer will have to be calculated by the CPU in some way, so having a fast CPU high clocks and high core count will make your PC faster. Also, be sure to drop by our Forum full of PC Enthusiasts and Experts if you should have any questions! Anything that draws power also generates heat and the CPU generates lots of heat. This means it has to be cooled to be able to operate flawlessly. What do we need for cooling a CPU? A CPU-Cooler! Easy as that! There are two popular CPU-Cooler types. AIOs, though, can be noisier usually have more fans and the added pump noise and need more room in your PC-Case, as they are attached to the side of the case, connected to the CPU with some Water Pipes. The air-cooled tower CPU cooler is great at cooling short performance bursts, is nice and quiet, and usually takes up less room in the case. It is simply placed on top of the CPU where it sits and goes about its cooling-work. Next up is the Graphics Card. Its purpose is the processing of anything that has to do with visuals and outputs these visuals Images, User Interface, GUI onto the Monitor. This means, some CPUs already have a graphics chip built-in and you will not need an additional GPU to attach a monitor to. The thing with integrated GPUs though is: Their performance is very limited. It comes on its own printed circuit board like the one in the picture above , that is then plugged into a PCI Express Slot on your Motherboard. Having more Modules, of course, will multiply your RAM capacity. All three do pretty much the same, they store data for you. The main difference between the three is speed. It is about as small as a stick of chewing gum and needs no extra cables. But almost all modern Motherboards nowadays have at least one of these. Highly recommended! We talked about CPU Cooling a bit already. This is done by attaching Case Fans to the inside of the case. These then pull in cool air at the front of your PC and blow the hot air out the back of your PC. We picked a bunch of nice PC Components already, but nothing much will happen without a power supply to supply the PC with power. There are so many PSU brands with different wattage or efficiencies out there, that it can be quite difficult to decide which one to buy. You should then of course now buy a stronger power supply, that will later also be able to handle the extra components. If you are unsure of how much wattage your current or future PC Build actually needs head on over to the Wattage Calculator here that tells you exactly how much you need. Everything that goes into the Case we have already discussed. We can close our case now and see what else we need to finish our PC Build. Monitors come in all kinds of sizes, colors, resolutions, aspect ratios, and so on. If you are looking for a Gaming monitor you might not need the IPS-type Panels that have better color display and contrast. Check this in-depth article on what is important in a great Monitor. If you are into Graphic Design and professional Color grading or Video Editing you should invest more money into a good Monitor. Windows 10 is the currently leading Operating System that will let you use your PC. There are several ways to do this. Nowadays though, as optical drives are becoming a thing of the past, the Operating System is usually either downloaded directly from the Internet for you to create your own boot medium on DVD or thumb drive or you can buy it on a USB Stick Thumb-Drive that you can install Win10 from. You now have all the parts needed to build a functioning PC. Ready to pick some concrete PC-Parts? Gaming PCs consist of the exact same parts as PCs that are not necessarily meant

for gaming â€" so this article and the list above applies to buying parts for gaming PCs too. The main difference is in how you allocate your budget to individual parts. When you decide on what parts are needed to build a gaming PC, you usually allocate a much larger part of your budget to the GPU Graphics Card , as many Games are quite demanding when it comes to graphics. Apart from buying a strong GPU for gaming, many gamers also like to invest in the look and aesthetics of their PC. What Computer are you building? Need Help? Any suggestions? Thanks Larry. Hey Alex, thanks for the excellent suggestions. The other suggestions are pretty much inline with what I had looked at â€" thanks for your help. Image-Source: Corsair. Image-Source: tweakpc. Image-Source: Nvidia. Image-Source: gskill. Image-Source: Asus. Image-Source: Microsoft. Image-Source: Logitech. Find a new friend on the CGDirector Forum! The next post you should read. Friend us:. Need help? Ask us Anything! Want to be friends? We keep our friends up to date on tech with our newsletter! Feb, Bottom Line: x vs x for 3d Work? Feb, First time laptop advice for Blender and other graphics, fractal programs, geometry Feb, Video editing PC build - cutting costs? Feb, Also check out our Forum for feedback from our Expert Community. I agree to the Privacy Policy. Larry Rudnick. Hey Larry, NVMe drives are a good choice. John Jackson. Jordan Brown. If I have a b board will it need a bios update with a ryzen 3 Cheers, Alex. Theo Blume. Maybe a GTX Hi Alex, Would I be able to play Roblox on this? Thanks, Dan. Yeah the System Requirements are fairly low, so it should work fine. Hey Kudret, Did you make sure the newest Nvidia Driver is installed? Load More Comments. Too much Info? We agree. I'd like that! No thanks. The world of computers is ever expanding like some kind of science fiction infinite universe thing, and it can quite a daunting task for beginners to learn about computers these days. But thankfully, the basics have remained pretty much remained the same, thanks to good global standards. Let us explore more of that in this guide, read on! This box is where all the main components of the computer are housed in â€" Motherboard, processor, memory, hard disks, power supply, and more. Some of the monitors might even have built-in speakers, much like televisions. The older designs of computer monitors run off a technology called cathode ray tube CRT. As you can guess, those bulky and power hungry displays have been totally taken over by the slim and lightweight liquid crystal display LCD or LED light emitting diode displays. Now that we are done with the basics, let us move on with the input devices â€" The devices that you use to provide data and instructions to the computer. What you enter data, type words, numbers, and symbols with. Depending on where you are in the world, the layout of keyboards may be a little different. Because there are some science and design factors behind it â€" The keys on a keyboard are actually arranged to how common the alphabets are being used. Thus in the various different regions, you may get a different keyboard layout. A pointing device that you use to move a cursor around the screen, with the mouse buttons being used to interact with various on-screen elements. A standard mouse these days will usually come with at least 3 buttons left, center, right and a scroll wheel. Although there are some mouse designs with a lot more buttons, and more meant for the purpose of gaming. Trackpads are an alternative to using the mouse. These are what you will normally see on laptops, where it is inconvenient to carry a mouse around. Not to be confused with the tablet computer, the graphics tablet is specifically used by digital artists to paint and do someâ€¦ art stuff. It kind of works like as a trackpad as well. This slug-like device is called a trackball, and another alternative to using the mouse. Instead of moving the mouse around, you spin a big ball around to move the cursor. Web cameras are used to take photos and videos. Most laptops, tablets, and smartphones already have a camera built-in, but the higher-end web cameras are simply better in terms of the captured visual quality. Allows you to record sounds with your computer. Again, web cameras, laptops, tablets, and smartphones already have one of these built-in. It is just a matter that the higher-end microphones are able to record better studio quality sounds. Toys for the gamers. While the keyboard and mouse do provide good enough controls, the seasoned gamers still prefer to use specialized gaming controllers. Next, let us move on to the output devices. The computer is capable of processing a lot of digital data quickly, but sadly, the poor humans are not able to directly understand electrical signals. So, output devices are used to convert those electronic signals into human-understandable forms. Use a pair of headphones if you want more privacy with the sounds, or not to disturb the rest. A printer prints text, images, and whatever you want onto a piece of paper. These 2 used to be separate devices, but with the help of technology, we have all-in-one AIO printers these days that does both printing, scanning, and some even acts as a fax machine. Yep, you can almost print anything to your wildest imaginations with a 3D printer. The monitor not big enough for you? Then use a projector and project it onto the wall. Good for movie nights and presentations. A fair word of warning though â€" Switch off the power, unplug the power cord, and ground the casing safely before you decide to open up a computer. Save yourself from nasty electrical shocks. This is the component that converts power from the wall outlet to one

that the computer needsâ€¦ Also, you do not want to open it up without the proper knowledge and training â€" Even when they are unplugged. All the components and devices are connected to the motherboard, and thus, rightfully called the motherboard. This little chip is known as the central processing unit CPU , and it is the brain of the computer where all the data crunching and processing is done. The hard disk is where data is permanently stored â€" The operating systems, the applications, your pictures, music, documents, and more. The RAM is probably one of the more confusing components for the beginners. It is also used for data storage, but temporarily. Desktop, laptop, tablets, smartphones, just what are the different types of computers? Read my other guide to find out. This is an old YouTube video that I find to be rather useful in identifying the computer partsâ€¦ A few of the components are really outdated, but the basic structure of desktop computers have not changed much. Thank you for reading, and we have come to the end of this short guide. I hope that this has helped you to better understand the cyber world, and if you have anything to share with this guide, please feel free to comment below. Good luck, and may the digital force be with you. Your email address will not be published. Leave a Comment Cancel Reply Your email address will not be published. Section A The Basic Parts. Section C Output Devices. Section D The Insides. Extra Useful Bits. So a computer is normally considered to be a calculating device that performs arithmetic operations at enormous speed. A computer is an electronic device which is used to perform operation on raw data as per instruction given by user. Like any other device or machine, a computer system has also a number of parts. A computer system can be blocked into mainly three parts:. Input unit â€" Input unit is a unit that accepts any input device. The input device is used to input data into the computer system. Function of input unit:. An electronic circuitry that carries out the instruction given by a computer program. CPU can be sub classified into three parts. It reads instructions from memory and interpretation and changes in a series of signals to activate other parts of the computer. It controls and co-ordinate is input output memory and all other units. Memory Unit MU - Memory is used to store data and instructions before and after processing. It is used to store data temporary or permanently. Function of CPU-. Output Unit â€" Output unit is a unit that constituents a number of output device. An output device is used to show the result of processing. Function of Output unit:. View all articles by VidyaGyaan. I really gain information about computer. Very nice. You fucked man. Ignored this mistake. It is too good note on Computer memory. It is very helpful. So a number of good notes can hide a mistake. But the notes are really too good and very helpful. Your email address will not be published. Notify me of follow-up comments by email. Notify me of new posts by email. Generations of Computers and Their Characteristics. What is a Printer? Types of Impact and Non Impact Printers. What is computer? Characteristics and Limitations of Computer. Martin Luther King Jr. Quotes in English and Hindi. Important International Organisations and Groups. Computer Knowledge. Leave a Reply Cancel reply Your email address will not be published. Search the site. With this step-by-step guide you will have your PC build up and running in no time. I needed to switch over to Apple computer, phone and ipad because of software changes in my buisness. These items were either open box or refurbished with a A rating. Fabulous Prices, all worked and looked new. I am a faithful user of a popular on line store that deals in the same items, however I can not get these kind of deals especially at these condition and prices. See All. They determine the capabilities and features of a computer, as well as its power and processing speeds. When building a new computer or upgrading an old one, focus on the computer's Central Processing Unit CPU first, as it defines most of the components a computer can use. It will also determine what you can do with the computer. Typical users can skate by with a basic processor for surfing the net and checking email. Gamers will likely want a quad-core processor, though as games advance, six and eight-core processors become more attractive options. The more cores or threads a computer's CPU processor has, the better performance it will provide, so graphic designers and video editors may need a high-end six or eight-core model. Pair motherboards with CPUs of the same generation for the best performance, and to ensure they can work together. There are three case size categories, though the computer cases themselves have varying dimensions. Full towers are large enough to accommodate specialty parts, such as Extended Advanced Technology Extended ATX motherboards and water cooling systems. Mid towers are the most common, and easily suit the needs of most users. Micro-ITX computer cases are large enough to house mini-ITX motherboards, and they are an excellent choice for basic rigs. Choose a case that can accommodate all computer components and allows airflow, which prevents overheating. DDR4 is the newest rendition. Home Components. Computer Cases. Power Supplies. Server Components. Sound Cards. Hard Drives. Computer Accessories. Power Protection. Featured Brands. Shop PC Components. Video Graphic Devices. Optical Drives. PC Cooling. How to choose a graphics card: Your buying guide. Components Featured Items. What Customers Are

depends on how many slots you have and the maximum size each slot supports. Some computers require that you have the same amount of RAM in each slot. Check the PC's manual to confirm this. Thanks to a notch, replacement modules will only fit one way. Line the new module up with the notch, and press firmly into the slot until the catches lock it in place. Check they're secure and you're done. If a computer was a human, the CPU would be the brain. It is the single most important part of a computer. The CPU processes data, calculations, and controls most of the other components. CPUs sit on the motherboard in a dedicated socket. It is important to know that these sockets are often specific to particular generations of CPU. Once secured on the motherboard, a CPU is cooled with a cooling unit, usually a heatsink and fan. However, other PC cooling solutions are available. Like the motherboard, it is unwise to upgrade your CPU yourself if you are a beginner. In most cases, upgrading your CPU will require a new motherboard, along with a heat sink and perhaps other components. Find out more in our guide to how a CPU works. A look at the back of your computer will show you where the power cable is attached. There is usually an on-off switch on this, in addition to the power switch on the front of the computer. SATA power cables power everything else in the computer. PSUs are rated by the amount of power they supply e. It is important that your computer is powered properly. If it isn't, components will not work correctly, and the system will soon fail. You also want to make sure you get the proper connectors for your system. The PSU can be replaced by first disconnecting all internal cables. Follow this by removing the screws that secure it to the PC case. Data is retained on your PC in a storage device. For decades a hard disk drive HDD has served this purpose, but PCs increasingly rely on other devices. Drives required two cables: one for power, one for data. They're powered by Molex plugs. Increasingly uncommon on laptop computers, desktops still seem to ship with an optical drive. Upgrading an optical drive is simple. Unplug the cables, unscrew, or unlock the drive from its housing, the push it out the front of the case. PCs frequently ship with a card reader and USB ports on the front. Replacing a card reader is simpleagain by unplugging and pushing through from the back to pull it out. An oft-overlooked PC part is the cooling fan. At least two are required: one for the CPU, and another for the case. Because it gets hot inside a computer, motherboard fans draw cool air in; additional fans draw the heated air out. In most cases there should be a fan on the back of the case, another on the side or the front. Many cases come with fans built in, but these are usually low grade. Superior fans can be installed, designed to replace or complement the existing cooling solution. Cooling fans are usually powered by a cable from the PSU and are secured to the case with screws. In most cases the video out port is connected to an integrated graphics card on the motherboard. However, this isn't always the case. Modern games require better graphics cards. As such, gamers, video editors, graphic designers, and other specialists employ dedicated graphics cards. This overrides the motherboard's GPU. Graphics cards are prone to compatibility issues such as size specifications, slot placement, motherboard type, processor speed, and power intake. However, upgrading is as simple as removing the securing screw and clip, unplugging the GPU and slotting the replacement in its place. On the back of your PC you will typically find three to five small circular ports. These are usually colored. In some cases, you might also find them on the front of your PC. These are the audio ports, connected to your computer's sound card. Like the video card, a sound card is usually integrated into the motherboard. However, for specialist use such as gaming and audio development or recording purposes, a dedicated sound card might be used. Sound cards offer various audio improvements, such as advanced audio processing and Dolby 7. By now you should know the names of the various PC parts in your computer. You should also be able to recognize them too, as well as have an idea as to how they can be replaced. You're on the road to understanding how to service your own computer and save money. It might even lead to you building your own one day. But this article is not about how to build a computer. If you're ready to do that, consult our guide on how to build a PC. New to recording audio? He also produces The Really Useful Podcast and has extensive experience in desktop and software support. You know how to use a computer, but how familiar are you with what's inside? We're going to show you how to identify your computer's parts by name. What Are the Basic Parts of a Computer? Share Share Tweet Email. USB vs. Christian Cawley Articles Published. Subscribe To Our Newsletter Join our newsletter for tech tips, reviews, free ebooks, and exclusive deals! Submit Loading One More Stepâ€¦! Please confirm your email address in the email we just sent you. How to Clear Cookies on iPhone. The 7 Best eReaders for Book Lovers. A computer can process data, pictures, sound and graphics. They can solve highly complicated problems quickly and accurately. A computer as shown in Fig. These are. We discuss below each of these Computer operation. Input: This is the process of entering data and programs in to the computer system. You should know that computer is an electronic machine like any other machine which takes as inputs raw data and performs some processing giving out processed

data. Therefore, the input unit takes data from us to the computer in an organized manner for processing. Storage: The process of saving data and instructions permanently is known as storage. Data has to be fed into the system before the actual processing starts. Therefore the data is first stored in the storage unit for faster access and processing. This storage unit or the primary storage of the computer system is designed to do the above functionality. It provides space for storing data and instructions. The storage unit performs the following major functions:. Processing: The task of performing operations like arithmetic and logical operations is called processing. The Central Processing Unit CPU takes data and instructions from the storage unit and makes all sorts of calculations based on the instructions given and the type of data provided. It is then sent back to the storage unit. Output: This is the process of producing results from the data for getting useful information. Similarly the output produced by the computer after processing must also be kept somewhere inside the computer before being given to you in human readable form. Again the output is also stored inside the computer for further processing. Control: The manner how instructions are executed and the above operations are performed. Controlling of all operations like input, processing and output are performed by control unit. It takes care of step by step processing of all operations inside the computer. In order to carry out the operations mentioned in the previous section the computer allocates the task between its various functional units. The computer system is divided into three separate units for its operation. They are. Logical Unit :After you enter data through the input device it is stored in the primary storage unit. The actual processing of the data and instruction are performed by Arithmetic Logical Unit. The major operations performed by the ALU are addition, subtraction, multiplication, division, logic and comparison. Data is transferred to ALU from storage unit when required. After processing the output is returned back to storage unit for further processing or getting stored. The next component of computer is the Control Unit , which acts like the supervisor seeing that things are done in proper fashion. The control unit determines the sequence in which computer programs and instructions are executed. Things like processing of programs stored in the main memory , interpretation of the instructions and issuing of signals for other units of the computer to execute them. It also acts as a switch board operator when several users access the computer simultaneously. You may call CPU as the brain of any computer system. It is just like brain that takes all major decisions, makes all sorts of calculations and directs different parts of the computer functions by activating and controlling the operations. About Dinesh Thakur. The basic parts of a desktop computer are the computer case , monitor , keyboard , mouse , and power cord. Each part plays an important role whenever you use a computer. Looking for the old version of this video? You can still view it here. The computer case is the metal and plastic box that contains the main components of the computer, including the motherboard, central processing unit CPU , and power supply. Computer cases come in different shapes and sizes. A desktop case lies flat on a desk, and the monitor usually sits on top of it. A tower case is tall and sits next to the monitor or on the floor. All-in-one computers come with the internal components built into the monitor, which eliminates the need for a separate case. The monitor works with a video card , located inside the computer case, to display images and text on the screen. Most monitors have control buttons that allow you to change your monitor's display settings, and some monitors also have built-in speakers. These can be made very thin, and they are often called flat-panel displays. Older monitors use CRT cathode ray tube displays. CRT monitors are much larger and heavier, and they take up more desk space. The keyboard is one of the main ways to communicate with a computer. There are many different types of keyboards, but most are very similar and allow you to accomplish the same basic tasks. Click the buttons in the interactive below to learn about the different parts of the keyboard. The Print Screen key takes a picture of your screen called a screenshot that you can edit or save using a graphics program. The Escape Esc key allows you to stop a function or action. For example, if a webpage is taking a long time to load, you can press the Escape key to stop loading it. The function keys are labeled F1 through F. Some programs use these keys as shortcuts for common tasks. For example, in many programs, F1 opens the Help file. The Tab key is used to create indents in word processing programs. Also, if you are filling out a form online, you can use the Tab key to switch to the next field. The main part of the keyboard includes the alphanumeric keys letters and numbers and the spacebar. The Control Ctrl , Alternate Alt , and Shift keys are designed to work in combination with other keys. Typically, you hold down Ctrl, Alt, or Shift and then type another key to perform a specific task. The arrow keys are used for many different purposes, including moving the cursor, scrolling a document, and controlling a game. The numeric keypad resembles a calculator keypad. Many users find that it is easier to type numbers using this keypad. On some keyboards, these keys double as arrow keys. The Enter key executes commands. For example, while on the internet, you can type a website address and then press

Enter to go to the site. It is also used to start a new line in word processing programs. Insert : This switches between insert mode which inserts new text without deleting anything and overtype mode which deletes text after the cursor as you type. Delete : This erases the character to the right of the cursor. If you want to learn how to type or improve your touch-typing skills, check out our free Typing Tutorial. There are two main mouse types: optical and mechanical. The optical mouse uses an electronic eye to detect movement and is easier to clean. The mechanical mouse uses a rolling ball to detect movement and requires regular cleaning to work properly. To learn the basics of using a mouse, check out our interactive Mouse Tutorial. There are other devices that can do the same thing as a mouse. Many people find them easier to use, and they also require less desk space than a traditional mouse. The most common mouse alternatives are below. Escape Key The Escape Esc key allows you to stop a function or action. Function Keys The function keys are labeled F1 through F Tab Key The Tab key is used to create indents in word process

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 ing programs. Alphanumeric Keys The main part of the keyboard includes the alphanumeric keys letters and numbers and the spacebar. Arrow Keys The arrow keys are used for many different purposes, including moving the cursor, scrolling a document, and controlling a game. Numeric Keypad The numeric keypad resembles a calculator keypad. Backspace Key The Backspace key erases the character to the left of the cursor. Enter The Enter key executes commands. Home and End These move the cursor to the beginning or end of the current line. Insert and Delete Insert : This switches between insert mode which inserts new text without deleting anything and overtype mode which deletes text after the cursor as you type. Page Up and Page Down These scroll a document or webpage up or down. The mouse is another important tool for communicating with computers. Commonly known as a pointing device , it lets you point to objects on the screen, click on them, and move them. Next: Buttons and Ports on a Computer.