3d printer parts diagram

You might be very tempted to quickly unpack and assemble your new printer and start printing. Make sure you have good light and cover most of the angles. Artillery has been very flexible and has never asked for this kind of proof but you never know. How to calibrate 3D printer and first things you should print is an excelent video about the initial setup of your printer. Some things might not apply to Artillery printers especially the firmware upgrade part but are good to be aware of. A very good article that covers most of the initial checks you need to perform is Artillery Sidewinder X1 calibration guide. In case of the Sidewinder and his little brother the Genius this is pretty straight forward. You just need to insert the part holding in Z and X axis into the base of the printer, fix it with the 4 screws and then plug the 4 cables for the Z motors, Z endstop and filament sensor. One thing to be careful with is the plug at the base of the left Z gantry that looks like an ISA connector. If that part is not inserted properly it can create a lot of problems in the future as all the connections for the X motor and the extruder block pass though it. If unsure, you can always loosen the 2 screws holding the connector and pushing it more towards the base of the printer. You have to check that at least all the visible screws on the base of the printer and on the Z and X gauntries are properly tightend and that none are missing. A missing screw could be hiding between other printer components and jam the mechanisms or create a short circuit. Check that all the ribbon cables are properly inserted. Remove the plastic cover of the extruder block makes it easier unplug the ribbon cable and then re-insert it. Do the same unplug and plug back in for the ribbon that goes up and down the left Z gantry. You can safely leave the filament sensor unplugged. Belts need to be properly tight. You should be able to pinch them almost like a guitar string. Each end of the belt has an idler that is fixed to a piece of metal that in turn is fixed to the gantry with two screws. To tighten the belt, unscrew the two screws, pull the idler assembly and re-tighten the screws. The wheels that walk the gantries are equiped with eccentric nuts. Because the gantry profile and the wheels are angled this is called a v-slot roller system. The eccentric nut allows one of the wheels to move closer or farther from the gantry so that the part that needs to move does not have any play and can freely slide. For the X and Z axis there are 3 wheels hoding each part, with the 2 on one side being fixed and the 3rd on the other side being movable via the eccentric nut so the one on the bottom for the extruder block and the inner ones for the Z axis holding the X gantry. The Y axis holding the bed on the other hand has four wheels, two on each side and only the ones on the right side have eccentric nuts which you should try to tighten so that both apply the same pressure. You should be able to move them by hand and the movement should feel smooth from one end to the other. It is normal and it will even out after a few days of printing. This is because the wheels have been tightened and left in the same position for a long time and the rubber has deformed a bit. In time, the wheels will gather some dust part from your environment and part from the factory coating. Wipe them with a cloth or a cotton tip from time to time. You should visually inspect the threaded rods and make sure they are straight and properly lubrufiated from the factory. Check for spacing between the motor axle and the threaded rod inside the couplers. You can try to insert a piece of paper in the gap of the coupler, or use a flashlight from the other side. If there is no gap, you can release the coupler screws, slightly pull the rod and the coupler and insert a piece of plastic about 0. Check that your X gantry is paralel to the base of the printer. You can use a spirit level to do that, or some z-height blocks if you have a friend that can print them for you. Basically any tho any 2 identical objects that can fit under the X gantry should do, I have used 2 vitamin containers. If the X gantry is not paralel to the bed, you need to loosen the syncronization belt pulley screws to make sure both Z motors can move independently, then you can manually turn either one to makes sure the gantry is flush with the spacer objects you have used. Check that the extruder block looks like in the pictures. Make sure the heatbreak radiator is properly installed we have seen them mounted with the fins towards the heatbreak , and also check the extruder hobbed gear is aligned with the idler. After you turn on the printer, make sure the extruder does not start heating. The screen should indicate the room temperature for both the extruder and the bed. If the extruder temperature goes up turn off your printer imediatly and contact support. This means the MOSFET on the mainboard is busted, it could be just a bad batch or it could also by a symptom of a more serious issue like the power supply. To make sure everything on the mechanical part is ok, it is now time to home your printer. In case any axis has issues moving, check the conexions, especially the ribbon cables as they are usually to blame. In some rare cases it could be that the motor driver is broken. I suggest to move the Z axis up to the top and back down a coupler of times to make sure the lube on the threaded rods is spread evenly. In some rare cases it could be that the E motor driver is broken. It is now time to perform some calibrations, so start by loading your filament , PLA preffered. Connect your 3D printer to a PC as some of the calibrations require using some sort of terminal like Pronterface to issue commands to the printer. Some of the calibration steps and guides require you to save some

settings to EEPROM so that they persist between printer reboots. Preheat your nozzle according to the specs of your material and extrude some filament by holding the idler lever and gently pushing the filament in by hand. The filament should not put much resistance and it should flow straight down. If the filament tends to curl up it could mean that you have a partially clogged nozzle. Try doing a cold pull. If the filament makes popping sounds water quickly evaporating due to the heat and pressure and the flow is not constant this could mean that your filament is wet and you need to dry it before trying to do anything else. Preheat your nozzle according to the specs of your material and extrude some filament from the TFT menu. Then press on the idler lever, remove the filament and check the marks left by the extruder hobbed gear. If the grooves are too deep then you need to release some of the pressure the idler is puttin on the filament by screwing in the idler pressure screw. If there are no grooves the idler needs to apply a bit more pressure. Finding just the right pressure depends on the material, but in general too much pressure will grind the filament and create extrusion problems, too little pressure can make the hoobed gear slip and also grind the filament in time. If you see filament leftovers on the hobbed gear or around it it means your pressure is not propper. This ensures the necessary amount of material is extruded. Since the slicer requires a specific volume of material to be extruded to create your model, the only way it can calculate how much is actually extruded is by knowing the diameter of the material which is always the same - 1. The printer can only work with the length of extruded filament given my the number of steps the extruder motor performs while spinning the hobbed gear used to push in filament. If the motor steps per mm of extruded filament is not setup corectly, then you will have more or less material extruded leading to over or under extrusion. More advanced users would like to perform a flow rate calibration. As different materials extrude differently in order to get very acurate dimensions for your prints the flow of each material needs to be adjusted. This is an optional step for now and you can do it later if you are not happy with your results in terms of dimnension accuracy. Another important step in the life of your 3D printer is the PID calibration of the extruder and heatbed heaters. Since the heaters are either heating or not heating the printer needs to monitor the temperature and turn them on and off at regular intervals to maintain a constant temperature which is very important during 3D printing. Easiest way to get started is with Prusa Slicer or Ultimaker Cura. They both have a similar organisation of settings split into machine, material and print profiles. Both do a good job of explaining what each setting does via a tooltip, Cura even has a settings guide plugin which explains more in depth what each setting does. They both highlight what changes you made to your settings versus the saved version of each profile and versus the defaults so each time you change something you can easily track those changes. I got started with Prusa Slicer because it felt more solid at that time, coming from the same company that builds the most famous 3D printer of them all, but whichever you choose is fine. To get started easier you can download a pre-made profile, this will give you some sensible defaults to get you started and then you can tune your settings from there after you get the hang of it. Once you understand how the different settings affect your print, you can build your own profile. Here is a list of settings that you should take into consideration:. Those will depend on the material you are printing, always check the specifications provided by the manufacturer. You can also confirm this with a flashlight and a ruler placed against the bed surface. Congratulations, you should now have a working printer and you can start fine tunning your slicer settings to get most out of it! With every new material I get, my first print is usually a 35x35 calibration square printed at 0. You could also do a temperature tower but that takes way longer. Start with a temperature in the middle of the range recommended by the filament manufacturer and go up and down until you like the result. Plus you can build yourself a calicat army or give them to your friends once they start filling up your room like little lego pieces. I use the Artillery Genius cable relief with cable insert slot by galimoic but there are also other versions out there. For that you also need a piece of a clean dishwater sponge. I use the Filament Dust Filter by sneakypoo. View On GitHub Last update: Home How 3D printing works Overview of a 3D printer Printing materials The slicing software Setting up your 3D printer Tips and tricks Upgrades and spare parts Troubleshooting issues Other guides You might be very tempted to quickly unpack and assemble your new printer and start printing. A very good article that covers most of the initial checks you need to perform is Artillery Sidewinder X1 calibration guide Assembling your 3D printer In case of the Sidewinder and his little brother the Genius this is pretty straight forward. Screws and connections You have to check that at least all the visible screws on the base of the printer and on the Z and X gauntries are properly tightend and that none are missing. Belts and wheels Belts need to be properly tight. Z rods You should visually inspect the threaded rods and make sure they are straight and properly lubrufiated from the factory. The extruder block Check that the extruder block looks like in the pictures. It is time to plug in your printer for the first time. A good video on how to replace the nozzle is Artillery 3D

Sidewinder X1 Nozzle Changing Home your printer To make sure everything on the mechanical part is ok, it is now time to home your printer. Calibrating your 3D printer It is now time to perform some calibrations, so start by loading your filament , PLA preffered. Check extrusion Preheat your nozzle according to the specs of your material and extrude some filament by holding the idler lever and gently pushing the filament in by hand. How to Clean a 3D Printer Nozzle If the filament makes popping sounds water quickly evaporating due to the heat and pressure and the flow is not constant this could mean that your filament is wet and you need to dry it before trying to do anything else. Extruder screw pressure Preheat your nozzle according to the specs of your material and extrude some filament from the TFT menu. TODO take a picture of the idler pressure screw and make an orientation diagram Extruder steps calibration This ensures the necessary amount of material is extruded. Extruder Calibration Guide with calculator â€" E Step Calibration Flow rate calibration More advanced users would like to perform a flow rate calibration. Pre-made profiles To get started easier you can download a pre-made profile, this will give you some sensible defaults to get you started and then you can tune your settings from there after you get the hang of it. Creating your own profile Once you understand how the different settings affect your print, you can build your own profile. Here is a list of settings that you should take into consideration: Machine limits print size : mm on X and Y mm on Z I actually use mm for Z because of some constraints of my enclosure nozzle diameter : 0. If the prints tend not to stick to the bed you can always increase in 5C increments and use a different value for the first layer s. I also enable z-hop or lift Z during retraction with a distance of 0. Note that linear advance is not enabled on the default Artillery firmware. Print settings layer height should be set between 0. You can also set a different larger height for the first layer to increase bed adhesion but not above the maximum computed from your nozzle. I like to do my purging at the edge of the bed to be sure it does not interfere with the actual print. Your first real print Congratulations, you should now have a working printer and you can start fine tunning your slicer settings to get most out of it! I use the Filament Dust Filter by sneakypoo You can no go ahead and print that Benchy you always wanted. Add the following snippet to your HTML:. The making of a large 3D printer xx mm for a college project. Project tutorial by Desi Engineer. I already attached page PDF, which contains required quantity of parts and its dimensions. Download it from this website tab: Custom parts and enclosures. Then I assemble all the different parts together. For more Reference, you can see my youtube video. In this scene, I connect all the necessary thing according to Schematics and circuit diagrams image. For more reference see the youtube video from to After all, I complete all the work and my printer is ready for print. The attached image is the result of the first print from my 3D printer. Please log in or sign up to comment. This is a mostly printed 3D Printer very suitable for a hobbyist. It's an easy and cheap way to get into 3D printing. Project tutorial by Johnathan Hottell. You should never leave your 3D printer unattended This device will cut power to your printer when it senses thermal runaway. Ever wonder how much filament you actually used for a project or have an old mechanical ball mouse laying around to be recycled? Project in progress by ArtSuzhou. Project tutorial by Team Otto builders. Senses for smoke in the air near a 3D printer and will sound an alarm and turn off power to the printer if smoke is detected. Project tutorial by Miles Nash. Sign In. My dashboard Add project. Project tutorial. Arduino IDE slic3r printrun. YouTube Video. Dimenssion of all Required parts Download. Connection Diagram Download. Connection diagram of the stepper motor, Ramps 1. Author Desi Engineer 1 project 33 followers Follow. Respect project. Similar projects you might like. Powered by. Keep me signed in on this device. Or connect with your social account: Login with Arduino. Acrylic Sheets. Pedestal bearing 8mm KP T8 8mm Lead Screw with Nut. GT2 20 tooth flanged pulley for 5 mm shaft with timing belt 4 mtr. Nema17 Mounting Bracket. RAMPS 1. PCB Heated Bed. Arduino Mega I used Nema17 59Ncm 2A 1. Arduino IDE. A widening variety of industries in manufacturing, entertainment, and academia have continued to take full advantage of these large format printers to create prototypes, mass-produce products, and build the future. What is large? Our large build area is up to 1 meter x 1. In addition, a large build area can incorporate rapid design iterations to vastly reduce market entry time. Traditional desktop 3D printers are fine for prototyping parts, but can be costly in terms of volume production and time-to-market. In contrast, industrial manufacturers can customize our large format 3D printers, providing the ability to produce near-net shape parts. The result is decreased costs and reduced time-to-market. Printing with 3DP can be as easy as easy as 1 - 2 - 3D! Learn the different steps on how to successfully create a 3D print by watching our video D Printing. Create your 3D model. Start with a 3D model that was either created in 3D modeling software or download from the internet. The 3D printer processing software best understands these file types. Process the model in 3D printing software. Import the file and set a few standard model modifiers such as the number of top and bottom layers, perimeters, and infill. Next, increase the strength in the

infill box by setting the interior fill percentage to 20 percent. Finally, save the file in g-code format, which gives the printer step-by-step instructions. Send file to printer. Heat the bed and remember to home the axes prior to each print. Next, select the g-code file. Once the target temperature for the extruder is reached, then the print will begin. Watch the first few layers to make sure the print adheres to the build area and that the filament is flowing smoothly. Current market extruders are limited in terms of their thermal capacity, therefore making them insufficient in their abilities to melt and dispense filament rapidly. They typically have an average throughput of 36 grams per hour. In contrast, our HFE high flow extruders can provide a throughput of 1, grams per hour, resulting in a substantial decrease in 3D print time. Our flexible line of extruders allows you to change nozzles depending upon your application and purpose. Use a small diameter nozzle for fine layer resolutions or go bigger with large diameter nozzles for fast printing and strong parts. Modular designs can accommodate filament sizes from 1. In addition, quick-swap dual extruder heads deliver high quality 3D prints while being independently controlled for speed and extruded material amounts. Therefore, companies need to answer the demands of reliability and performance by utilizing industry-proven mechanical and electrical components. For this reason, 3DP offers motion system technology that improves cycle time and final part quality. Within these open markets, skilled experts blend various polymers to achieve specific end goals for certain projects. Additionally, open software markets can spark innovation by providing real-time 3D printed models that can be easily accessed and shared. Open source and reliability are why top industry leaders look to 3D Platform to stay competitive in demanding markets. Take a look at the future of 3D printing! WorkCell â€" Our large format 3D printer with heated enclosure is currently in the design process! Engineering Your Linear Motion Solutions. Alstom and Amtrak. Alstom and Amtrak Prototyping the train cockpit. Highland Community College. Idaho Virtualization Lab: Giant Spider. Idaho Virtualization Lab: Prehistoric Fish. Ridoret Group. Ridoret Group Window prototypes and manufacturing. Sunnyslope High School. Sunnyslope High School Components for robotics competition. C7 Cabon. C7 Cabon Prototypes and consumer-ready car parts. PBC Linear. PBC Linear Ramp fixtures for shop floor. Rapid 3D: Not So Miniature. Fox Sports Robot. Thermoform Large thermoforming dies. Progress Rail. Progress Rail Casting and machining tool mock-ups. Thingergy Specialty item techniques. Warwick Drone. Titanic Design. Innovative 3D. Innovative 3D Metal parts with complex shapes. Gonzaga University. Gonzaga University Ankle Foot Orthosis. Architectural Lighting. Architectural Lighting Lighting prototypes. Large build volume 3D Platform is committed to making your biggest ideas a reality. Blog Posts from 3D Platform. Request a Sample. Thank you. Please check your email for further instructions. It is step by step guide to make an 3D printer at home using arduino mega. I tried to use as possible low cost but reliable materials. Generally popular Diy 3d printer using arduino mega is using old DVD drive,s stepper motors but this one is big 3d printer. The small DVD drive stepper motor can print only maximum 4 cm X 4 cm but this big diy 3d printer can print up-to 20 X 20 cm objects. Flexible Coupling Coupler 5mm 8mm 25mm 2Pcs. I am using a modified old pc ATX power supply. After making frame we have to install Y axis motor at front side of the printer. I have used zip tie to fix motor. We are using 12v 20 amp power supply. We are using marlin firmware for this 3D printe r. Here is details of marlin configuration. Marlin configuration.. Excellent â€¦. I hope youâ€¦. Your email address will not be published. Arduino Mega 3. Flexible Coupling Coupler 5mm 8mm 25mm 2Pcs End stop switch â€" 3 pcs Aluminium channel 2 inch X 1 inch â€" 12 ft Plastic clip board Screw ,spring ,Zip tie I am using a modified old pc ATX power supply Pingback: Marlin configuration for homemade RepRap 3D printer - techno review Leave a Reply Cancel reply Your email address will not be published. Slideshare uses cookies to improve functionality and performance, and to provide you with relevant advertising. If you continue browsing the site, you agree to the use of cookies on this website. See our User Agreement and Privacy Policy. See our Privacy Policy and User Agreement for details. Published on Mar 15. A complete illustrated ppt on 3D printing technology. All the additive processes.Future and effects are well described with relevant diagram and images. Must download for attractive seminar presentation. Advances in 3D printing technology can significantly change and improve the way we manufacture products and produce goods worldwide. If the last industrial revolution brought us mass production and the advent of economies of scale - the digital 3D printing revolution could bring mass manufacturing back a full circle - to an era of mass personalization, and a return to individual craftsmanship. SlideShare Explore Search You. Submit Search. Home Explore. Successfully reported this slideshow. We use your LinkedIn profile and activity data to personalize ads and to show you more relevant ads. You can change your ad preferences anytime. Upcoming SlideShare. Like this presentation? Why not share! Embed Size px. Start on. Show related SlideShares at end. WordPress Shortcode. Seminar Links , Presentation Developer Follow. Published in: Technology. Full Name Comment goes here. Are you sure you

Hull as a "system for generating three- dimensional objects by creating a cross-sectional pattern of the object to be formed" 4. Foil supply 2. Heated roller 3. Laser beam 4. Scanning prism 5. Laser unit 6. Layers 7. Moving platform 8. Waste The exposed liquid polymer hardens. Stereolithography Apparatus RepRap version 2. Airwolf 3D AW3D v. Visit You just clipped your first slide! Clipping is a handy way to collect important slides you want to go back to later. Now customize the name of a clipboard to store your clips. Visibility Others can see my Clipboard. Cancel Save. It is a product of open projects such as the RepRap, Arduino and Repetier. The objective of this instructable is to guide your way throw the entire making process of building a BuildersBot machine. To view the the machine in 3D just Download the attached sketch file and access the BuildersBot OpenSource Design in metric system and is in 1 by 1 scale. In order to build a BuildersBot you will need the following list of "ingredients":. The origin, is where the three axes cross each other. The X axis will move the tool from left to right, the Y axis will move the tool from back to forth and finally the Z axis will move the tool up and down inside the work area. In summary: The 3 dimensional work space is mapped using XYZ coordinates, this means that we can precisely control the position of the tool holder inside the work space. Build a frame made from rectangular and square stainless steel tubes. The frame is composed by 11 stainless steel parts for dimensions consult the 3d open design. Be careful to align the tubes perfectly. Next weld the 4 vertical columns, and finally the 3 renaming top tubes that from an open frame. The Y axis guide system is composed by two parallel supported round rails. A round rail provides the linear guide path for bearing blocks to traverse along its length. This type of rail has precision tolerances is around 0. The support of the rail is made from aluminum. To avoid propagation of vibration in the structure, isolate the stainless steel chassis from the aluminum rail support using some type of rubber i used synthetic ultraleather. Possition the round rail guides on top of the ultraleather and align the holes, then screw them in place, carefully align the 2 round rail's parallel to each other before final tightening, also try to adjust the level by adjusting the force on the screws. Be patient and try to achieve perfect alignment using a level meter and a ruller. The X axis guide system is composed by two parallel supported round rails one under the other. In between the two supported rails are two L shaped 15mm aluminum plates dimensions in sketchup file. These plates have 6. Before mounting the X Axis on top of the Y Axis, you need to insert 4 leaner bearing blocks on to the round rails, as shown in the figures. Attach the round rail guides on top of the chssis and screw them in place, carefully align the 2 round rail's parallel to each and perfectly perpendicular to the Y axis other before final tightening. The Y Axis transmission system drives the the the tool holder up and down. The implementation used is a paired transmission system, this means that there are 2 Timing belts and 4 pulleys to drive the Y axis back and forth. The System implemented has no reduction, these means that the driving pulley is the same diameter as the idler pulley. I have no performance problems with this setup. The X Axis transmission system drives the tool holder left and right. The Z axis used in this machine has an unorthodox guide and transmission system. The guide system is mounted in a way that it will allow the Z axis to have 22 cm range. This is quite a big value for small CNC as this one, but it was built in purpose to allow for 3D printing big object. As a result you will have 2 small blocks an 1 bigger block of aluminum plate. They where glued together using wood glue and let to dry for a day or so. The bed was then drilled in a 10cm square matrix of M8 pecked holes. Note: Most MDF contains formaldehyde, this is a scientifically proven cancer causing agent. I don't recommend the use of MDF, i coated it thoroughly with varnish in order to isolate the material from the air in my workshop. As soon as i can i will change the bed with other type o wood, because i don't want to support this kind of materials. The BuildersBot electronics enclosure is made from 7 laser cut acrylic parts. All parts fit together to make the enclosure. The enclosure has rear holes for all exterior wire connections. All stepper drivers are mounted on a acrylic plate and positioned in the middle of the enclosure. The enclosure is closed using zip-ties. To enhance the enclosures visual presentation there are 4 blue LED's that light up the enclosure when power is on. As you have may noticed in the final build photos the Builderbot has a red theme, the motor and the spindle where painted in red using height temperature spat paint. The cable carriers where also painted in red. CNC milling resolution, repeatability in 10 mm Acrylic sheet using 2mm depth passes:. Fit the BuilderBot with an extruder and filament holder that will allow it to perform 3D Printing. The Z axis allows the printing of height objects, and the idea is also allow the fitting or other extruders that will come out in the future, such as metal and cement printing. The extruder is mounted on the tip of the tool holder, it is a version of Greg's extruder and has a 0. It can be mounted or unmounted from the tool holder by simply unbolting 2 bolts. The cable connections connect the extruders motor, the fan, the hotend

resistor and the thermistor. The extruder mount price can be attached to the Builderbot using 3 bolts. It can house three 4cm fans and a Gregs extruder. In order to do so, use the following like to download the latest version:. After installation open the Application and select Printer settings and make the following configurations:. The led strip is glued using strong double sided tape. It serves the propose of lightning the BuildersBot workspace and also Pimping the machine to its max. Reply 9 months ago. Question 1 year ago on Step 3. I built a RepRap Mendel tri color about 7 years ago and would like to convert to arduino as the support for the RepRap has gone away. Can I just use the arduino to replace the control circuits with appropriate shields? Hello, I am thinking about building similar concept of my CNC machine. Did you consider stifness of the axis X, where lower linear rail is rotated and linar block is hanged on it? I am considering to place linear rail in same orientation for better stiffness. Whad do you think about it? Question 2 years ago on Introduction. New to this and have some what are probably dumb questions. Also, after you have everything built and wired how do you program the stepper drive. Question 2 years ago on Step 5. Hi, this is really the first robuust cnc machine for printing and others. Will start with it; Just one question; Close-loop not an interesting thought? Question 3 years ago on Step Question 3 years ago. It's pretty hard to find those there! Reply 3 years ago. By aldricnegrier Follow. More by the author:. Mother Nature Makes We Build. The instructions will cover all areas such as design, mechanics, electronics and software. But before you go any further take a look at machine's concept design: And also the machine build photos and the machine in action: Finally check out the insane effects of the RGB led's on BuildersBot: Warning Viewer Discretion Advised Strong Language. Use this design as much as possible for guidance during this instructable. Attachments BuilderBotV8. The objective: Build a frame made from rectangular and square stainless steel tubes. Items needed: The frame is composed by 11 stainless steel parts for dimensions consult the 3d open design. The objective : Equip the BuildersBot with a guide to minimize The Y axis guide system is composed by two parallel supported round rails. Items needed: 4 - SBR20UU Linear Ball Bearing Support, two for each rail 2 - 20mm diameter mm length sported round rails 28 - 6mm screws with 33mm length 28 - auto lock nuts 2 - sleeves of ultralearther Tools needed: - Screw driver - Open wrench - Level meter - Ruler Instructions: To avoid propagation of vibration in the structure, isolate the stainless steel chassis from the aluminum rail support using some type of rubber i used synthetic ultraleather. The objective: The X axis guide system is composed by two parallel supported round rails one under the other. Items needed: 4 - SBR20UU Linear Ball Bearing blocks, two each side, 2 - 20mm diameter mm length sported round rails 24 - 6mm crews with 33mm length 24 - lock nuts. Tools needed: - Screw driver - Open wrench - Level meter - Ruler Instructions: Before mounting the X Axis on top of the Y Axis, you need to insert 4 leaner bearing blocks on to the round rails, as shown in the figures. Items needed: 2 - M Timing Belt 8 - ZZ Shielded Ball Bearing 4 - M Metric Timing Pulley 4 - Aluminum U shaped pulley support 4 - M6 calibrated shafts for the pulleys 12 - 4M Grub screws for the pulley 2 - Motor coupling Tools needed: - Drill machine - Screw tapper kit 5mm male drill - Angle grinder Instructions: - Prepare the pulleys by tapping M4 male screw 3 holes spaced by degrees - Insert 3 4M grub screw in the tapped holes - Drill a hole in the center of the pulley to allow the shaft to pass 6mm diameter hole - Make bearing housing inside the aluminum U shapes using a manual router end mill - Insert the bearings inside the housings - Mount the aluminum U shaped bearing housing on to the frame - Tighten the belt around the 2 pulleys and lock them in position with good tension - Attach motor coupling to pulley shaft. Items needed: 2 - M Timing Belt 8 - ZZ Shielded Ball Bearing 4 - M Metric Timing Pulley 4 - Aluminum U shaped pulley support 4 - M6 calibrated shafts for the pulleys 12 - 4M Grub screws for the pulley Tools needed: - Drill machine - Screw tapper kit 5mm male drill - Angle grinder Instructions: - Prepare the pulleys by tapping M4 male screw 3 holes spaced by degrees - Insert 3 4M grub screw in the tapped holes - Drill a hole in the center of the pulley to allow the shaft to pass 6mm diameter hole - Make bearing housing inside the aluminum U shapes using a manual router end mill - Insert the bearings inside the housings - Mount the aluminum U shaped bearing housing on to the frame - Tighten the belt around the 2 pulleys and lock them in position with good tension - Attach motor coupling to pulley shaft. The objective: The Z axis used in this machine has an unorthodox guide and transmission system. The objective: Build a work area for the Builderbot. The bed can be placed in different heights depending on the material to mill or object to print. The objective : Build an enclosure for the electronics The BuildersBot electronics enclosure is made from 7 laser cut acrylic parts. Items needed: 2 - 70x50x5mm Acrylic sheets 2 - Cooling fans Tools needed: - laser cutting machine - Screw driver Instructions: The enclosure has rear holes for all exterior wire connections. Attachments EletroBoxV2. The objective: Wire the electronics Items needed : - 4 Nema 23 Motor dual shaft oz-in - 4 Driver 4. The objective: Fit the BuilderBot with an extruder and filament holder that will allow it to perform 3D Printing. This feature allows the printing of

very big object xx max volume The Z axis allows the printing of height objects, and the idea is also allow the fitting or other extruders that will come out in the future, such as metal and cement printing. Attachments buildersbot3dpint3. Attachments Repetier-Firmware-Buildersbot. Check out my latest project at Did you make this project? Share it with us! I Made It! Reply Upvote. Thank you for this detailed description! I'm trying to load the firmware onto my Ardiuno mega but I keep getting errors. My Ardiuno mega but verify on adruino errors. Nghi Quang 12 months ago. MaxG14 Question 1 year ago on Step 3. Answer Upvote. MarekM34 1 year ago. Thanks Johan. Omar Question 3 years ago on Step AntoineO3 Question 3 years ago. AngusXiao 3 years ago. Really helpful. Which software did you use for electronics wiring design? CKrebbers 4 years ago. Hello aldricnegrier, It's a really nice tutorial you've made! I'm building one as well, will post some photo's when its done. Could you me tell me what the settings DIP switch of the motor drivers are? Thank you. RiteshK52 CKrebbers Reply 3 years ago. MTeodor 5 years ago. I have sent you email. Must have a 3D Printer like this :, Email Address:, Forgot your password? No account? Register one! Vote for specials. U pdate log:. The power pack: operating voltage is 12VV; double power supply design feeds for heatbed and logical part separately. The current is 12A for heatbed and 5A for other parts. The cooling fan can support 12V. The firmware is the prevalent Marlin, which is known for its stability, usability, and high-performance. Hi, I bought this board from Amazon. Is it normal it power up the display only when it is connected to USB? I have a Pro B printer. I would like to use the GT to drive an aluminium I3 Pursa but the Merlin software when loaded displays ultimaker and has the wrong step size can you help please. Just finished assembly of the I3 Pro W and the extruder motor will not turn. Plug extruder into x driver and it turns. Take stepper driver from x axis into extruder slot on control board it doesn't turn extruder. Extruder stepper plugged into x axis slot on control board and it doesn'turn x anymore. Even tried Extruder 2 slot with the original extruder driver and the x axis driver. Neither work there. I believe i have a bad control board and stepper driver for the extruder. Please advise. Hello, can u tell me teperature of the extruder? Hi kim,sorry for late reply,if you want to know how to setup 3dtouch,please email:victory. Hi Melvin,sorry for late reply. You can email me if you have any problems:jocelin. GT 3D printer controller board Comment is unapproved Hi Mike ,you can contract to our tech for help ,and if broken by quality you can contract the related sales. Does this version also support 24V for the Heat bed? Btw, what are the differences between GT an GTb? Hi Mathias ,you can place the order online and remark to the sales the board used on Me creator 2 and the sales will arrange the correct one to you. They are in different ,using on different printer ,pls note with thank. Hi Zina, The bed levelling problem has been solved but now other issues have applied, i just send a support request to the technical staff. Love the machine btw. After connecting everything to the main board i noticed a little problem. The probe for bed levelling is the same micro switch as used on the axis end stops, only difference is the L shaped probe, so far nothing to worry about, two wires can be connected When using a 24V power supply with this controller board, is 24V applied to the extruder heater ports? Hi Benjamin ,if you want the controller by 24V ,you also need make sure the extruder and the heat bed are 24V,or the controller will be burnt out by 24v. Building an I3 clone with aluminum frame. Do you have any pre-configured firmware? What would be the easiest way to connect the power source I can pull the 4 pin off an old power supply. Hi Orie,you can see below: 1. I enabled into the Marlin firmware and tried with different slicer solution but the fan stay always on without solution to be software controlled. I tried with several different fans but no effect. Hi Donald,Theoretically can. Pls note with thank. Hello I have a prusa i3 pro-b. The plug-in connector attached to the board is now broken - can I get a replacement. I have temporarily rewired the heatbed to the connector pins on the main board and everything seems to be working fine. Hello, I bought a prusa i3 pro-b printer, with the gt card, the y-axis engine no longer wants to back off, i have inverted the x-axis motors with that of the y-axis, same problem , I inverted the steppers same problem , I reloaded the firmware, same problem. So the problem seems to come from the card itself, can you help me please. It was working fine and I have no issues printing from USB, the issues started when I started upgrading the printer with lead screws and I needed to changed steps on z-axis. It seems printer board doesn't accept instruction from programmer. I am not sure what I am doing wrong and whenever the board is any good. I am suspecting that maybe programmer on boars is either not loaded or was removed after programming. Now my question is whenever I can update setting in the board to work or I need to buy new board, but I don't want to do it before making sure new board is the only option. Hello, again. Thank you for your response. I haven't heard any update, but just though maybe I would be e-mail to your technician directly. I am thinking to order boot loader or maybe send the board for repairs, but want to be sure what is wrong with it.. Can you advise which e-mail should I use. Thank you. Is it possible to connect a 12v power and a 24v power supply at the same time? I purchased a High Precision Reprap Prusa i3 from E bay, I

would like to have a copy of the firmware so I can fine tune the performance. Can you help me? Hi,Ian You can buy it at a local store,and here are the specifications about the 2 fuses: 1. Hi, I recently purchased a Prusa i3 Pro B equipped with GT and all went well, I can print flawlessy; now I'm trying to implement the auto-leveling feature, but before to attempt changes on firmware I'd be sure I can restore old firmware. Could you kindly send me the original firmware? I want to upgrade the Sanguinololu to this board, Will I need new stepper drivers or can I use the ones from the old board. Are there any changes needed top be done to the firmware to make this work on my printer? Where can I get the latest firmware for this board and my printer? I notice that this board is included with the Geeetech Aluminium Pro printer. Will that firmware work with my printer? You can use the old ones if they're all working fine. Also please which psu require for main board? Hi,Shiva I'm afraid it doesn't support the LCD you mentioned,and about tht PSU,the operating voltage is 12VV; double power supply design feeds for heatbed and logical part separately. Hi, I had this board for about 2 weeks and ran it on stock a It ran fine, but I had drv and when I try them at about. The drv are not very hot but the black thing between the second extruder driver and the. Can I broke the board by printing like that or do you have an idea about what is happening? Hi,did you plug your drvs in a wrong direction? Cuz its plugging direction is different from A And when you plug drv,you should change the subdivision of the motor yes it the jumper caps,drv with one cap and A with 3 caps as you saw. Finally,A is recommended. Hi,Bob 1. Did your extruder motor work before? You can try swapping the extruder motor cable with cables of other motor,sometimes the motor cable is broken though it rarely happened. About the engine wiring diagram,you can find it in the "Users Manual of GT Extruder motor on my 3D printer stopped working. I did replaced the Driver-AModule. It does not help. Is it possible find the engine wiring diagram to the chip Atmega Did you disconnect the board to the Repetier host or other soft ware you are using? If so, please disconnect it. If you still have problem with it, please contact our tech support at technical geeetech. Hi, I have this board, and I would like to know if there is a firmware update, which date was released. How can I fix this? Please check your voltage input,I think you can adjust it to a smaller value. If you have any further queries, please contact technical support technical geeetech. I have asked this question without getting an answer. Q:What is the warranty on the boards. Hello Frank, the warranty is days. We have changed the bed heating connecter into the blue one as you can see in the picture, the melting will not happen again. Regarding to the burn mark on the power supply connector, pay attention that never hot Plug andUnplug the wire. Was anything else replaced because i can see a light brown mark on the track from the transistor. As I stated in my comment I have a scorch mark on one of the lines from the power supply at the plug on the board and was concerned that it might have been a power supply issue than from a plug issue. I am trying to supply you with as much information as I can from what I can see. I have recently ordered a board of a seller on ebay as of no shipping cost, but that it is of the older type of board, and that I have concern of this happening again but wonder if just replacing the plug will be enough to solve it as I could do that my self with a soldering iron. Currently, we only changed the connector. I bought another board from an ebay seller but that it was void of firmware. If this control board has the feature you need on that printer,you can use it. Hi guys,i hope you can help me,about my problem. My GT 3D printer controller board kit is not as it is. I got to lines in the LCD screen and i do a Marlin firmware but is not working. How can I fix this problem? I hope you can help me on this matter,thanks. Hi All. I am using a GeeetechGT controller board, with Davinci 2. My Extruder extrudes well under manual control, from PronterFace or Repetier-Host , but, during prints, its stops extruding, after a few layers and starts clicking or skipping. A I have tried several times to adjust the potentiometer on the extruder motor driver board, A, finding the right point between when the motor stops turning, when the power is too low and the motor stops turning when the power is too high. As I mentioned, it works smooth under manual control. I still cant get more than 2 or 3 layers to print, because, somewhere after the first few layers, between 2 and 5, the extruder motor starts skipping. B I have tried printing in PLA at and degrees. The clicking starts either way. C I dont believe the motor is getting overheated, as it starts clicking after just a few layers being printed. It only feel warm to touch at this point, often, even room temperature. D The Da Vinci 2. I have tried both motors, with different cogs and idlers, both with same results. Same results. F I cleaned the nozzle several times, confirming each time after cleaning, that PLA flows freely, through the nozzle, under manual control. G I have tried slicing with Slic3r and Cura. Print preview shows XY movement and X axis and Y axis move accordingly. I have no idea what to try next as I am out of ideas. Any and all help is greatly appreciated. I have spent a month now, trying to install this GT and still cant get a print done. I recently bought a Prusa i3 from eBay but the GT would not work so I bought a replacement. Would anyone be able to give me the firmware to run this board on my printer? Hi, please visit this link to download the firmware you

need, thank you. Why not? You also need to desolder R23 for 1st head thermocouple, R21 for 2nd and R4 for heatbed. These three resistors are located below temp JST slots. If need only for head, desolder only R Even names are the same. It will void warranty for sure. HELLO can someone send me the latest marlin for purse i3 pro b with heatbed? My Email. Only Extruder1. Anything I plug into Extruder2 connection doesn't work. I've changed the ramps 1. Ramps shows the right voltage. I've tried 2 boards so far. My original board worked fine, but quickly got so hot at the power cable that it burned the connection on the board. Hi please check your e-mail, firmware has been sent to you. You can contact this e-mail technical geeetech. I have a Geeetech Prusa i3 Pro B printer from you, it has a GT controller, Could you please send me the latest version of Marlin firmware that you supply for this configuration? Hello Quentin. Please, resend me again. Hi Alexander, sorry that I'm not professional in technical problem. Can you please send via e-mail pin definition for my GT for Marlin software. My e-mail jazzmaker yandex. Thanks in advance. Thank you very much for creating such a fine product and manual! Could you please send firmware for the Prusa I3 to kris diy-forum. Hello good Morning! If possible please send me the correspondete firmware. Hello our firmware is used for certain combination of our control board and our printer. You can modify the marlin firmware yourself if you need to use it on your printer. Sorry for the late reply, we spent our Chinese New Year vacation for a couple of days. Hello i recently purchased a prusa i3 pro B printer with the corresponding firmware for my geeetech controller, i have also purchased a dual extruder as i would like to upgrade it to a pruss i3 pro C for dual extrusion could i please have the firmware for the pro C model, my email address is: info nulumen. Will you post a pins. When setting up Repetier firmware be best choice I have found so far is the Ultimaker 1. Hello Michael,please leave your e-mail address here, and I'll send you several pictures for illustration to help you. Does 12v have to be plugged for uploading firmware? Hi you can contact this e-mail sherry. Hi Quentin, I have this board on my I3 pro with the dual heads. If so could you send me the firmware and the instructions if any? Thank you sdigrazia1 sbcglobal. I am looking for the type of Connectors used for the motor- and fan connectors. Are you selling these also? Hi I still dont understand things about power supply. One power supply I can connect 24v for my 24v bed and one power supply is for everything else so I can connect it to 12v is that correct? All stepper motor input the same functionality I want use it with 4 independent axis and 1 extruder? I installed Repetier Firmware Motherboard: Ultimaker 1. The firmware works except the controller with config : "Smartcontroller for ReprapDiscount on Ramps". Could you send me the custom configuration to run the GT with Repetier Firmware please. Repetier Firmware is better for auto-level and with Repetier Host. Will this work in a CTC dual-extruder printer? What firmware is pre-installed and what firmwares are supported? Hello Joe, yes it can work in a CTC dual-extruder printer. Pre-installed firmware is Marlin firmware, but it is designed for Geeetech's printer, so there may be some differences between it and that of CTC. About t

avenger interior
2010 chevy aveo interior
1997 lexus es300

he firmware you can consult the original factory for help. Hello Evan, would you like to tell me which printer you bought? I need know the type of your printer in order to send the corresponding firmware to you. Hello, Can this support dual extruder? Expects says it support 5 steppers, but Z axis on prusa requires 2 stepper motors. What type is fuse for power supply unit GT - located at left corner. You can buy them in local hardware store or order them online. If you run the board at 24 volts are the fans regulated to 12v, or are they just 24v too? Considering this as a replacement for the RUMBA board, and that seems to be the only thing other than 3rd extruder missing. Sign In Email Address: Password:. Your Shopping Cart is empty. GT V4. Tell a friend about this product. Product Attri. Product Info. Package List. Comments Spare M6 nozzle for all metal-head hotend. Spare M6 nozzle for all metal j-head V2. Brass M6 nozzle for MK8 extruder. Nema 17, 42 BYG shaft-reversed stepper motor.