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## Soldering iron near me

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TBDSoldering copper pipe joints. I learned how to sell in high school shop class. It was so simple — so simple that my textbook covered the whole process in just five steps: Clean the end of the pipe with a sandcloth. Clean the inside thoroughly with a wire fitting brush. Apply the flux liberally to the pipe and fit, and assemble the joints. Heat a fitting (not a pipe) with a propane torch for about 30 seconds. Touch the solder wire to the joint. Following these basic steps, I managed to sell some joints and congratulate myself for being a skilled plumber. But when I handled my first real-world pipeline project, I found that the basics were not always enough. After some chaos and a lot of advice, I took a few tricks for a successful solder. It's my favorite collection. Take the valve apart before the solderHeat injures the valveTo keep the heat from damaging the rubber or plastic parts inside, disassemble the valve before soldering. Most valves—like the shutoff ell shown here—can be easily disassembled and rearranged in a few seconds. The ball valve is the stubborn exception. Fortunately, the ball valve is not easily damaged by heat. Be sure to open the valve and concentrate the heat at the end of the valve body fitting. Keep soldering threads away from ThreadsKeep yarn solder-freeCoat yarn with dope pipes to keep them free of soldering. Just a little solder on a fitting thread can make fitting almost impossible to tighten. It is best to fitting solder threaded into the pipe before connect the other end of the pipe. That way, you can stand the pipe upright so that the excess soldering will escape from the thread. When the solder fits threaded into an existing pipe, protect it with a heavy coat of pipe anesthetics (also called thread sealants or pipe joint compounds). The heat from your torch will dry the anesthetic, making it useless as a sealant. Clean and apply a new anesthetic. Stop water with breadBread is great for questioning over heat removal gravyWater—roll the white bread into the ball and fill it deep into the pipe to keep the water away from the joints you solder. If there is a little water that herds through the joints, you can't get that hot enough to melt the soldering. To stop the droplets, roll the white bread into the ball and fill it deep into the pipe. The bread will hold water long enough for you to solder the joints (work fast!) and then quickly dissolve when you revive the water. Use white bread only. Whole grains contain sandy grains that can get stuck in valves. Let the solder joints coolHot the solder brittle. Even soft movements such as vibrations from a nearby hammer blow can damage a still-hot soldering joint. Leave to cool for a few minutes before stressing on it. Don't burn fluxIf the flux starts smoking or blackening as you heat the joint, it means one of two things: you've heated the joint by holding the torch on it for too long or — more likely — you're holding the torch too close, trying to heat the joint too quickly. Pull back and take your time. If the flux burns, the solder will ball and roll the pipe instead of sticking as it should. Propane torches are the traditional weapon of choice for weekend plumbers. It works well for most jobs and is cheap: you can get a 14-oz disposable bottle of propane. and the torch for about \$20.The big advantage of MAPP gas (methyl acetylene-propadiene acetyl) is that it burns more than twice as hot as propane. That means the joints become hot enough to melt the solder twice as fast: You will save 15 to 30 seconds per joint. MAPP gas also allows you to solder large pipes (anything more than 1 in. hard diameter with propane). But you pay for extra heat: A bottle of MAPP gas costs about twice as much as propane and requires a special torch, which will cost you twenty dollars or more. MAPP and propane tanks and torches. Raft and solder all ends fit at onceDon't, for example, insert the pipe into one end of the elbow and solder it, then insert it and solder the second pipe. If you do, you tend to damage the joint first. Protect the closest joints from the nearest joint heatKeep from getting hotWrap nearby joints with wet wipes so they are not hot enough to soften the soldering. If you solder 3 in. or less than other soldering joints, wrap with a wet rag so that it is not hot enough to soften The fabric should be cotton, not a synthetic material that might explode into flames. If the joint leaks, resolderFirst turn off the water and open the lower tap of the leaking joint to allow the pipe to flow. Flowing, apply joints with soldering, heat and add more soldering. It usually works. Otherwise, you should separate the joints and start over. The Tools Needed for this Project Have the tools necessary for this DIY project lined up before you start—you'll save time and frustration. Materials Needed for this Project Avoid last-minute shopping trips by preparing all your materials in advance. Here's the list. Emory clothFluxMAPP gasPropaneSolder One of the most appreciated art forms of geeks is soldering, but not all of us know the right techniques. These are easy skills to add to your geek resume, so let's learn how and some old projects off the shelves. (Image credit: oskay) What is Solder? (Image credit: Public Domain Photo) Soldering iron is a tool with a metal tip that becomes very hot. We're talking like 800 degrees Fahrenheit, although you can adjust the temperature on a good iron. Its job is to transfer heat to things like cables, transistor prospects, and pads on PCBs. Once the appropriate area is heated properly, soldering is applied. If you plan to solder, then you better spend \$30-\$40 on a 20-30 Watt iron instead of on a cheap \$15. You will get a durable tool that will work for a much wider range of applications and you will get the right heat control to boot. There are also soldering weapons available, but you should only use this when fixing thick cables and never in PCBs, since the edges have a live voltage flowing through them that can damage sensitive electronics. (Image credit: Public Domain Photo) Soldering tubes are thin, usually rolled up in a landfill, made of various metal alloys. Its task is to unite individual components. Individual components and their amounts can vary, but for computer electronics, you usually see 60% lead and 40% lead. Lead-free soldering is also available, although it has higher melting temperatures and less wettability, meaning you may need a better soldering iron to use it and removing it can be more tedious. Lead-free solders are better for the environment and have other benefits, and they function more or less in the same way. The inside of the tube is filled with flux, a substance that gets rid of oxidation and helps clean the surfaces involved in the fuse process. For electronic use, you want rosin-core soldering/rosin-flux. Acid-flux used in plumbing and acid can damage sensitive components in PCBs. Safety First! (Image credit: intherough) Many who have never used soldering iron are afraid of damaging equipment, but more importantly it is a danger to Own! Soldering iron becomes very hot (think, and soldering itself is a molten metal. Be sure to wear safety goggles, keep clothes and hair loose, and be careful with your fingers. Better yet, use protective gloves. Soldering can contain lead, so be sure to wash your hands thoroughly handle it. It is also very important to work in well ventilated areas because smoke from resin can cause damage to your lungs when inhaled. To be honest, it was more common sense and preparation than anything else. Just take the right precautions and you'll be fine. Cleaning and Tinning the Tip (Image credit: Mae Labs) To do the heat properly, your soldering iron should be free of old soldering. Once exposed to air, it oxidizes and thus isolates against heat. We want the heat to do so we can apply everything quickly and efficiently. Dirty tips mean you have to hold the iron longer and risk heat damage to the PCB, and no one wants it. Keep a useful wet sponge, and once the soldering iron is fully heated, gently scratch against the sponge to remove the old soldering. The tip should be nice and shiny, or at least very close to it. Next, we'll lead the tip. This will protect the tip and allow the heat to do better through the presence of new solders. On a hot iron, carefully apply a small amount of fresh soldering and coat the ends. It should still be shiny if you've done it right. As soon as you tin the tip you should start soldering your components together. Once each of the few joins, clean and re-lead, and again before putting your iron into storage. This will greatly help increase the longevity of your tool. A good soldering iron should easily survive this year this way. Join the Spare Parts (Image credit: Solder is an Easy Comic Book) Hold the iron in your dominant hand and a long piece of solder in your other hand. When soldering two components together, you want to touch the area where they join the soldering iron. Hold there for about a second, then slide the soldering under the tip of the iron, sandwich to pcb (see image above, cursor point to solder). Hold for a second or two, eating in how much soldering you need. This amount will vary depending on the project, application, and solder diameter, so check your instructions and study the images to get a good idea of the end result. (Image credit: Solder is An Easy Comic Book) Now, this is really important. Pull the solder first, and continue holding the iron for another second. This allows the solder to continue to melt and pool, forming a good joint. Then, you can remove the iron. The total process should not take more than 5 seconds, and you usually shoot 3-4. Wait a few seconds and do not disturb the solder. It cools very quickly, but moving or blowing on the joints will cause it to worsen. Poor solder connection will be visible oxidized, too dull, and graying. It also looks like a soldering ball formed in the area. A good connection should be smooth and uniform, and the sides will be concave. It's not going to look like a raised ball, it's going to look flat. Soldering When deleting deletes or undo errors, you can often resell the original and add a new soldering touch. If you want to take extra steps and get it right, you can remove the old solder completely and start with a new workspace. There are two tools you can use for this, vacuum-based solder suckers, or solder axes. (Image credit: Wikimedia Commons) Solder suckers are basically small pumps like hand-held syringes. It creates and uses vacuum pressure to suck the soldering out of whatever it is. This is a great tool to have and it works well. (Image credit: Wikimedia Commons) A soldering axis is copper weaving that bonds the old solder. It's more expensive and disposable, so I don't usually recommend it. Some jobs, however, will greatly benefit from the clean finishing touches provided by the soldering axis. Both of these tools have their strong points, and most likely in your soldering career, you have to use one or the other specifically over time. Having a clean work area is very important, as it provides the best results and minimizes the risk of damage. Soldering is not too difficult. You just have to focus, keep your hands fixed, and be safe. A good soldering iron will prove to be a tremendous investment, leading to the much broader geek project arrangement you want. Now that you know how, practice so you're ready to show off your skills! Have some soldering tips of your own? Share your liquid hot story in the comments! Comments!