

What not to do when soldering

by **Ghondi** on January 12, 2007

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intro: What not to do when soldering

I'll be describing as many ways as I can think of on what not to do when your soldering.



Image Notes

1. Sticky coffee.....soap and water should do the trick
2. Pile of junk.....move it to another location as to not clutter up your workspace.



Image Notes

1. A nice burn will be under the iron when I pick it up again.



Image Notes

1. Ouch!

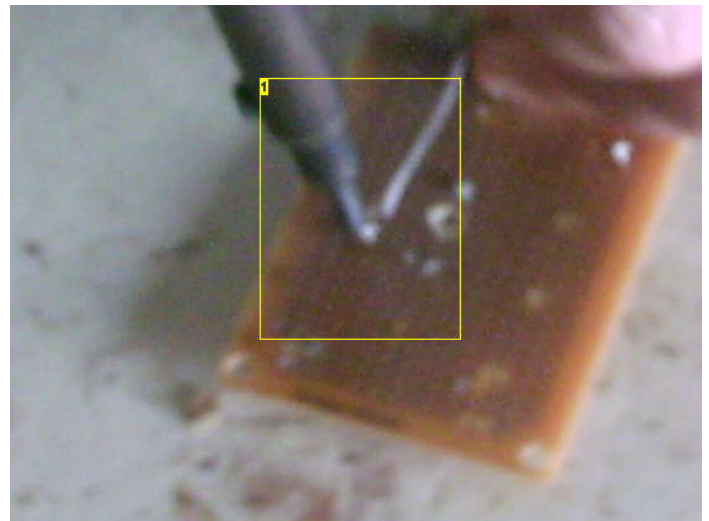


Image Notes

1. Soldering iron was vertical, but the camera was on a slant. Always solder on a slight angle.

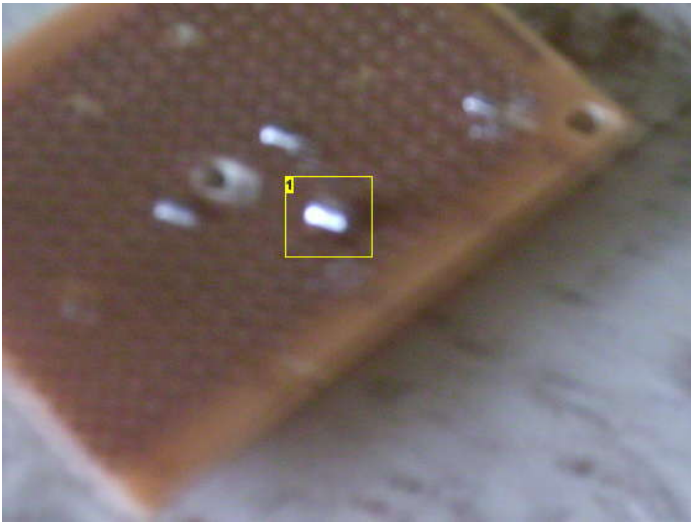


Image Notes

1. Too much solder. Solder is covering more than one copper pad.

step 1: Clean workspace

I can't stress this enough, keep your work area clean.

In the picture you can tell mine is not clean at all.

If your going to solder properly, a clean space will help you so much more than you could ever imagine.

Remember, Cleanliness is next to Godliness.



Image Notes

1. Sticky coffee.....soap and water should do the trick
2. Pile of junk.....move it to another location as to not clutter up your workspace.

step 2: Setting down the solder iron

Do not set your soldering iron down on a table and just leave it there. Use something to prop it up. Usually they come with some kind of stands, use them.

If you leave a soldering iron laying on a table, first off it will burn the table. If for some reason you leave the iron sitting on some plastic, your going to need to buy a new tip, and find a way to get the gross smell of all that melted plastic out of your house.



Image Notes

1. A nice burn will be under the iron when I pick it up again.

step 3: Don't touch!

This part is kind of self explanatory. Do NOT touch the heating element of a soldering iron when its on, or has been on. Let it cool properly before touching.

Touching the tip to see if the iron it heated up is not smart, instead try tinning the tip, if the solder does not melt/flow easily, the iron is not hot enough.



Image Notes

1. Ouch!

step 4: Angles

Don't solder straight down. Have your soldering iron at a 45 degree angle. This will give you more of a heated surface and a better solder throughout.

Soldering with the iron directly vertical just tends to burn marks and holes in your projects.

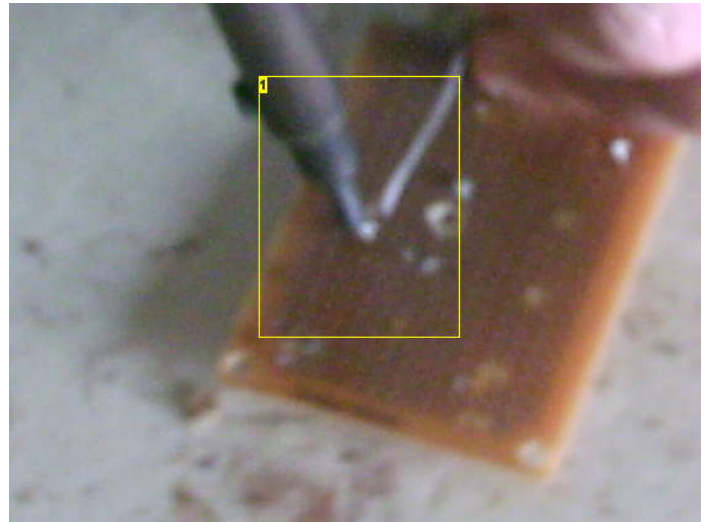
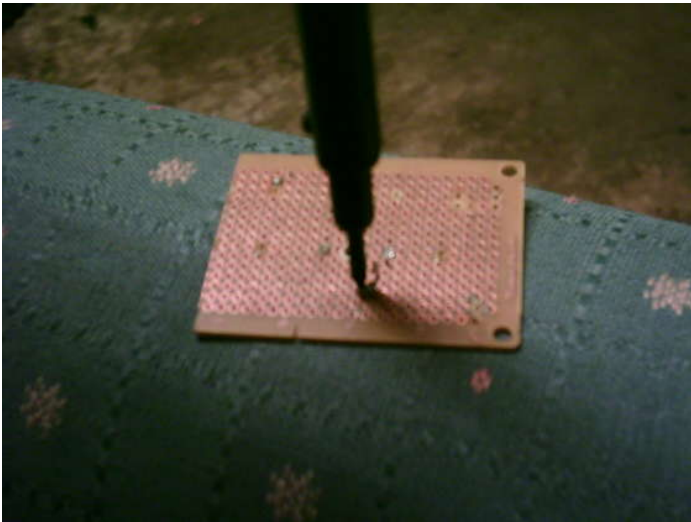


Image Notes

1. Soldering iron was vertical, but the camera was on a slant. Always solder on a slight angle.

step 5: To much solder

An over abundance of solder will cause many problems for your circuit.
Don't use too much, or to little solder as either will create many problems for you.

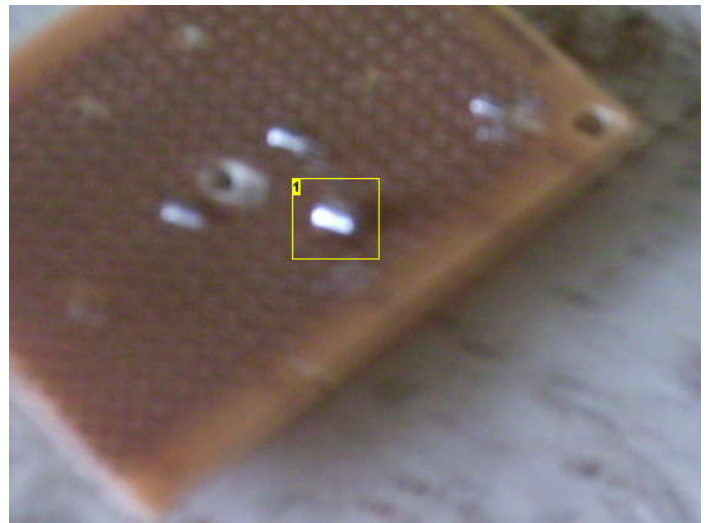


Image Notes

1. Too much solder. Solder is covering more than one copper pad.

step 6: Burns

This part may seem like a no brainer, but if you wake up at 3am and choose to solder something please make sure to wear a shirt. Solder splatters, which will cause burns. The burns will be worse if your not wearing the appropriate amount of clothing.

I learned this the hard way years ago when I had my first little stint of soldering.

step 7: Solder fumes

Lastly, when working with lead based solder, work in a well ventilated area. If you are in a confined space, try to make and use something similar to this solder fume extractor(<http://www.instructables.com/id/EKN6871P3FEP287LND/>).

Lead is toxic and can give you lead poisoning.

Its been known to cause cancer, birth defects and various other things, so be careful of you and the people around you.

Related Instructables



Soldering tips and tricks by Mr. M



How to solder by noahw



How to Build a Bench-Top Power Supply by greyhathacker45



Circuit Building 101 by CuriousInventor.co



Proper Soldering Iron cleaning & maintenance by exponent



Soldering Station by StepsoftheSun



Beginners wiring projects: LED banks by Firebert010



Don't throw solder away by neelandan



Comments

38 comments

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kenny94 says:
I did number three :(

Jun 1, 2008. 6:18 PM [REPLY](#)



kenny94 says:
I also splattered a bit of solder on my chin

Jun 1, 2008. 6:19 PM [REPLY](#)



VIRON says:
Once I ordered rolls of solder and it came with this WARNING:
CONTAINS LEAD WHICH IS KNOWN TO CAUSE CANCER IN CALIFORNIA!
PLEASE WASH YOUR HANDS BEFORE EATING OR SMOKING!!!
It seems magical that everything but those two things causes cancer there.

Jan 15, 2007. 3:12 AM [REPLY](#)



Skate6566 says:
Why would it only be known to cause cancer in Californ I A? lol

Feb 20, 2008. 4:28 PM [REPLY](#)



BFeely says:
It's actually suspected by the IARC to cause cancer but they conclude more research is needed. In California, a suspected carcinogen is a KNOWN carcinogen.

May 17, 2008. 10:27 AM [REPLY](#)



evanwehrer says:
i made a solder cube when I was 9 lol....then my mom caught me and i got in trouble

Apr 29, 2008. 11:48 AM [REPLY](#)



LasVegas says:
What? No more soldering in the nude? Bummer!

Jan 12, 2007. 6:18 PM [REPLY](#)

You're not going to ingest enough lead by holding the solder in your mouth unless you're in the habbit of chewing...
I agree about the photos. Try setting your camera into macro mode (the flower icon).



Ghondi says:

Jan 12, 2007. 7:13 PM [REPLY](#)

I have a really shitty camera, but I'm gonna try to re-take the last two pictures(the shitty ones)...I agree with LasVegas about ingesting so much lead...unless you chew your not gonna die. Even then...you gotta eat a decent amount.

Ventilation will be added...



James (pseudo-geek) says:

May 24, 2007. 2:12 AM [REPLY](#)

true, true. I've had lead in my mouth before and i'm perfectly fine.

also, a note to all you people who havent boguht a soldering iron yet: DO NOT, I repeat DO NOT but a ColdHeat soldering iron; they dont get near hot enough and you have to hold it on the sodler jsut right to get any heat at all.



Rishnai says:

Apr 1, 2008. 10:26 PM [REPLY](#)

Yeah, my dad bought one one time-- the "heat-resistant" rip melted itself into oblivion when, in the attempt to line up the tip correctly, a connection was made for a moment, which liquified the solder, got it horribly stuck in the tip, and things just continued their meltdown from there. It was actually rather entertaining, after I got it out of my hand and onto a concrete surface.



twenglish1 says:

Dec 4, 2007. 12:02 PM [REPLY](#)

i had a cold heat once but i got rid of it because it sucked



James (pseudo-geek) says:

Dec 4, 2007. 6:01 PM [REPLY](#)

/agree. I still have mine laying around. maybe I'll rewire it and make it powerful enough to melt solder,



James (pseudo-geek) says:

Dec 4, 2007. 6:01 PM [REPLY](#)

maybe a voltage doubler.



Sullen70 says:

May 31, 2007. 9:47 PM [REPLY](#)

What I dislike most about mine is that there is no subtlety to its operation. Either it's 'connected' and the solder instantly liquifies and flux vaporizes or it's slightly angled off and absolutely nothing happens. I keep it around only because I'm a pack rat.



James (pseudo-geek) says:

Jun 1, 2007. 3:37 AM [REPLY](#)

yup. conventional FTW



James (pseudo-geek) says:

May 31, 2007. 9:50 PM [REPLY](#)

heh. I think mine might not be working because of the tip.



Ko0LaiD says:

Mar 21, 2008. 2:07 PM [REPLY](#)

i've never heard or said this but i think we have the same couch



drewdoog says:

Feb 19, 2008. 4:19 PM [REPLY](#)

You didnt mention how cool it is to have a burn from a needle tip soldering iron. You get a perfect hole that is cauterized and a nice blister all the way around the hole.

Fumes are another nice thing to inhale. For all you kids out there looking for a cheap buzz, fire up that soldering iron and make sure you are using the highest lead content solder you can find, and suck it up. The higher the lead content, the higher you'll get.

If you start bleeding from any part of the body, its ok, thats supposed to happen. just refer to idea #1 on how to stop the bleeding.



meeze says:

Jan 12, 2008. 12:20 AM [REPLY](#)

Don't drop the soldering iron and catch the hot end. It hurts a lot.



bubba77 says:

Dec 16, 2007. 1:40 PM [REPLY](#)

is the non lead solder cancer causing and dangerous?



CameronSS says:

Mar 17, 2007. 12:11 AM [REPLY](#)

I will point out that jeans make a very effective solder barrier when you're not paying enough attention (Bad Thing) and you dribble solder in your lap.



James (pseudo-geek) says:
only if your dribbling like.....5+ drops worth in the same spot, which is very rare.

Dec 4, 2007. 6:05 PM [REPLY](#)



Adrian monk says:
No, cleanliness is next to managerliness! :D

Nov 17, 2007. 7:48 PM [REPLY](#)



DIY Dave says:
If you want to be safe you should wear some kind of glasses also.

Oct 26, 2007. 6:24 PM [REPLY](#)



zeero360 says:
wow dat helped alot, but i still cant solder properly.
i cant spell :(

Aug 4, 2007. 6:51 PM [REPLY](#)



ColumbusGEEK says:
so if I follow your advise, then soldering on the armrest of my couch is perfectly acceptable eh? :P

Jan 13, 2007. 10:56 AM [REPLY](#)



Ghondi says:
Haha..I wouldn't suggest it.

Jan 13, 2007. 3:34 PM [REPLY](#)

The iron wasn't on there...(in the last two images), it was the only place I could get any decent lighting.....that didn't make the picture look horrid...they still do, but not as bad as some of the others....

My camera sucks to say the least.



James (pseudo-geek) says:
hahahaha mine takes perfectly black with full sunlight or a halogen light. even then its pretty dark. (thats what I get for a \$8 digital at wal*mart).

Jul 19, 2007. 3:09 AM [REPLY](#)



tashammer says:
if your camera sucks so badly Ghondi, then perhaps you could use it as a vacuum cleaner.

Jun 1, 2007. 9:22 PM [REPLY](#)

Incidently, some folks on the East Coast of the USA do say solder.

"Sodder" is more the sort of term that unreconstructed males would use about a woman.

In the matter of soldering my teacher used to tell me that being able to solder a cube out of solder was a good demonstration of ones capability. (Before you ask, no).



James (pseudo-geek) says:
ehem. go to www.dictionary.com and look up "solder"

Jul 19, 2007. 3:07 AM [REPLY](#)



jcg says:
use a piece of hardboard (or any other stuff that doesn't go up in flames) to solder on. So your desk will stay free of burning marks and melted flux. It's dirt cheap and you keep your wife/girlfriend/mother from yelling at you. Offcourse if you have the luxery of a garage or shed to work in this isn't a big problem.

Apr 18, 2007. 5:23 PM [REPLY](#)



lemonie says:
Don't solder on furniture - images steps 4 & 5! (I know this looks nicer than your workspace & your iron was very probably cool)

Feb 12, 2007. 2:15 PM [REPLY](#)

I find that a cooker - top is a good workspace:

- > Most people have one
- > Nearby power points
- > Good height
- > Usually well lit
- > Excellent heat resistance
- > Solder-splashes easily removed
- > Gas hobs have propping-points

I've burned my flesh too many times, I don't know which smells worse between skin & plastic, but it's not nice...



5Volt says:

Jan 16, 2007. 2:30 AM [REPLY](#)

I agree with Royalestel: lead fumes are bad.

Copper / Tin alloy costs a little more than lead/tin but is better for our health and the environment. Copper / Tin also needs a little hotter soldering iron.

Ciao

5V.



wackyvorlon says:

Jan 14, 2007. 1:42 PM [REPLY](#)

I have a Weller WTCP iron. It has a built-in thermostat to control the temperature, and it will click when the iron is up to temp. All I have to do is listen for the click.



austin says:

Jan 12, 2007. 9:22 PM [REPLY](#)

yea i have a perfect solder iron imprint in my carpet from when my solder iron fell off the table and melted into my carpet.



ironlizard says:

Jan 12, 2007. 7:21 PM [REPLY](#)

You forgot using your soldering iron to burn holes in plastic. It's ok though, I always forget that one too.....



Ghondi says:

Jan 12, 2007. 7:30 PM [REPLY](#)

"If for some reason you leave the iron sitting on some plastic, your going to need to but a new tip, and find a way to get the gross smell of all that melted plastic out of your house."

That was my little plastic warning...



royalestel says:

Jan 12, 2007. 1:53 PM [REPLY](#)

Try taking a couple more photos to get the pictures in focus. I think it's also important to mention fumes and NOT holding lead solder in your mouth!