

## Soldering Class Safety Rules and Guidance

Cyber City Circuits LLC

Student's Name: \_\_\_\_\_

### Safety Is Your Top Priority.

Please initial each line to show your understanding of that information.

#### \_\_\_\_\_ Report all Injuries/Incidents

- Immediately report **ALL** accidents, injuries, or incidents to the staff.
- Immediately discontinue use of the tool(s) or equipment if it becomes unsafe, damaged, or is not working properly; notify the staff.

#### \_\_\_\_\_ Safe Conduct Agreement

- Prior to using any equipment patrons must agree to and sign the liability waiver agreement.
- Use the space and equipment safely and leave the space and equipment in clean and working condition.
- Work and behave in a way that protects your own safety and the safety of others.
- Ask for help when you are uncertain how to use equipment.

#### \_\_\_\_\_ Prepare

- **ZERO TOLERANCE FOR HORSEPLAY.** Participants found being reckless will be removed from the class.
- Be aware of the locations of first aid, fire, and safety equipment.
- Never use a tool unless you've been trained to use it safely.
- Do not climb on tables or chairs to reach for something.
- Do not cause a distraction, fool around, or startle anyone while either one of you is using a tool.

#### \_\_\_\_\_ Use Protective Gear & Dress Right

- Remove ties, jewelry (rings), lanyards, etc., while handling soldering equipment.
- Tie back long hair.
- Wear suitable gloves when handling hot objects or sharp-edged items.
- Eye protection will be provided and is required during soldering sessions.

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## **Use Tools Correctly**

- Use tools how they are designed to be used. (A screwdriver is not a hammer.)
- Never use a broken tool.
- Do not remove tools from the area.
- Never walk away from a tool that is still on/running.
- Never tamper with a tool's safety features. Operate machinery according to recommended procedures and with safety guards in place, as applicable.

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## **Food and Drinks**

- Covered beverages are allowed.
- If a spill occurs inform staff and clean up after yourself before leaving.
- Food is **NOT** permitted during soldering sessions.

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## **Clean Up**

- Clean up after yourself; leave the area clean and tidy.
- Clean and return all tools to where you got them.
- Shut off and unplug machines when cleaning.
- Never use a rag/paper towel near moving equipment.
- Keep the floor around equipment clean, dry, and free from trip hazards.

### **Safety Rules for Soldering:**

1. **Use care while soldering.** You should know that soldering irons are HOT! That means you might get burned. It's okay, everyone gets burned a few times when starting out, but just be careful. You may also need to use tweezers or clamps to help hold things in place while you're working. Also, when you're not using the iron always place it back into the stand.
2. **Always keep your work area clean and organized.** Soldering can be dangerous. Keeping your work area clean will help prevent accidents from happening and keep you safe.
3. **Only solder in a well ventilated area.** You can use a fan to pull the fumes away from your face. You can also buy special fans that have a filter built in to absorb the fumes. The visible fumes that you see when soldering is the flux or rosin from the solder. This stuff can make you sick. Be mindful of ventilation when soldering.
4. **Never leave your soldering equipment on when you're not there to watch it.** When you leave your work area make sure you turn your soldering equipment off. It does take a minute or two to warm back up when you come back to work on it, but it's a lot easier to do that than to have your place burn down. (See rule 1.)

5. \_\_\_\_\_ **If you use a cleaning sponge, keep it wet.** While soldering you need to regularly clean your iron. If you use a sponge to clean it (which is a great way to clean it), you really need to keep it wet.
6. \_\_\_\_\_ **Always wear eye protection.** Solder can fly off your soldering iron pretty easily. If that 400°C solder gets in your eye, you will have bigger problems in your life than soldering.
7. \_\_\_\_\_ **No matter what you do, wash your hands.** Soldering can include things like lead and flux. Both aren't the best for you when they get in your body. Whenever you get up from your work area, take a moment and wash your hands with warm water and soap.
8. \_\_\_\_\_ **Do not use soldering equipment that has obvious damage.** If you see damage to the iron, cable, or plug either repair it or replace it.
9. \_\_\_\_\_ **Always try to manage your waste in one place.** When you cut leads from your components or other things place them in a bin together. Leaving little pieces of metal on the floor can stab you in really terrible ways. Trust me on this one.

## SOLDERING PERMISSION FORM & WAIVER OF LIABILITY

In consideration of participation in the soldering training classes described below, I the undersigned for myself and/or as the parent/guardian of the Minor named below, agree to indemnify and hold Cyber City Circuits, employees, and other agents associated with the program harmless and hereby waive, release and discharge any and all claims for damages for death, personal injury, bodily injury or property damage which I and/or the Minor may have or which hereinafter may accrue to me and/or the Minor against the aforementioned parties from and against any liability arising out of or connected in any way with my and/or the Minor's participation in this Activity, even though that liability may arise out of negligence or carelessness on the part of the persons or entities mentioned above. Participants may be using tools such as pliers, utility knives, hot glue guns and soldering irons. Although appropriate instruction and safety protocols will be in place, there is still a possibility that an injury could occur. Please understand that people will be soldering and with soldering there is always a risk of injury.

The solder we will be using in all classes will be **lead free**, but because of the nature of electronics, lead may be present in small quantities on the circuit boards or within the electronic components. Electronics may contain lead and this is a typical warning label associated with lead solder: "WARNING: THIS PRODUCT CONTAINS LEAD AND MAY CONTAIN OTHER TOXIC METALS OR CHEMICALS. Ingestion or inhalation of fumes or particles released through processing could cause lead poisoning or cancer. Absorption of lead is known to cause birth defects and other reproductive harm and may result for example in damage to the blood and neurological systems. Use only with adequate ventilation. Lead Free Solder may be used but please be advised the rosin flux also produces fumes."

I understand that accidents and injuries can arise from participation in the Soldering Program; knowing the risks, nevertheless, I hereby agree to assume those risks on behalf of me and/or the below named Minor and to release and to hold harmless all of the persons or entities mentioned above whom (through negligence or carelessness) might otherwise be liable to me and/or the below named Minor (or my/our heirs or assignees) for damages. It is further understood and agreed that this waiver, release and assumption of risks has been freely entered into and is to be binding on my/our heirs and assigns. I have read and agree to the registration and program policies. By my signature below, I acknowledge that I have read this document and understand its contents. Check the appropriate space(es) and sign.

Participant (over 18) \_\_\_\_\_ Parent or Legal Guardian \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_ Print Name: \_\_\_\_\_

Contact Phone Number: \_\_\_\_\_