

Soldering Induction

SLQ Wiki Fabrication Lab 2026/05/06 19:37

- **The Basics**

- Hold the iron Like a pencil but further up
- Never touch the metal part of the soldering iron
- Never leave or rest the soldering iron on a table, always use a soldering iron holder. Iron is very hot and things can easily catch on fire
- Don't eat while you're soldering, solder contain some nasty stuff which you don't want in your body
- Always use ventilation (Fan, draft, etc)
- Eye Protection is not required but highly recommended
- Always wash your hands after soldering

- **While you're soldering**

- Tinning
- Cleaning

- **Types of soldering**

- Wire soldering
- Through-hole soldering
- Surface mount soldering

Whats a good solder joint look like? [here's Seed Studio's take on what you want and what you want to avoid](#)

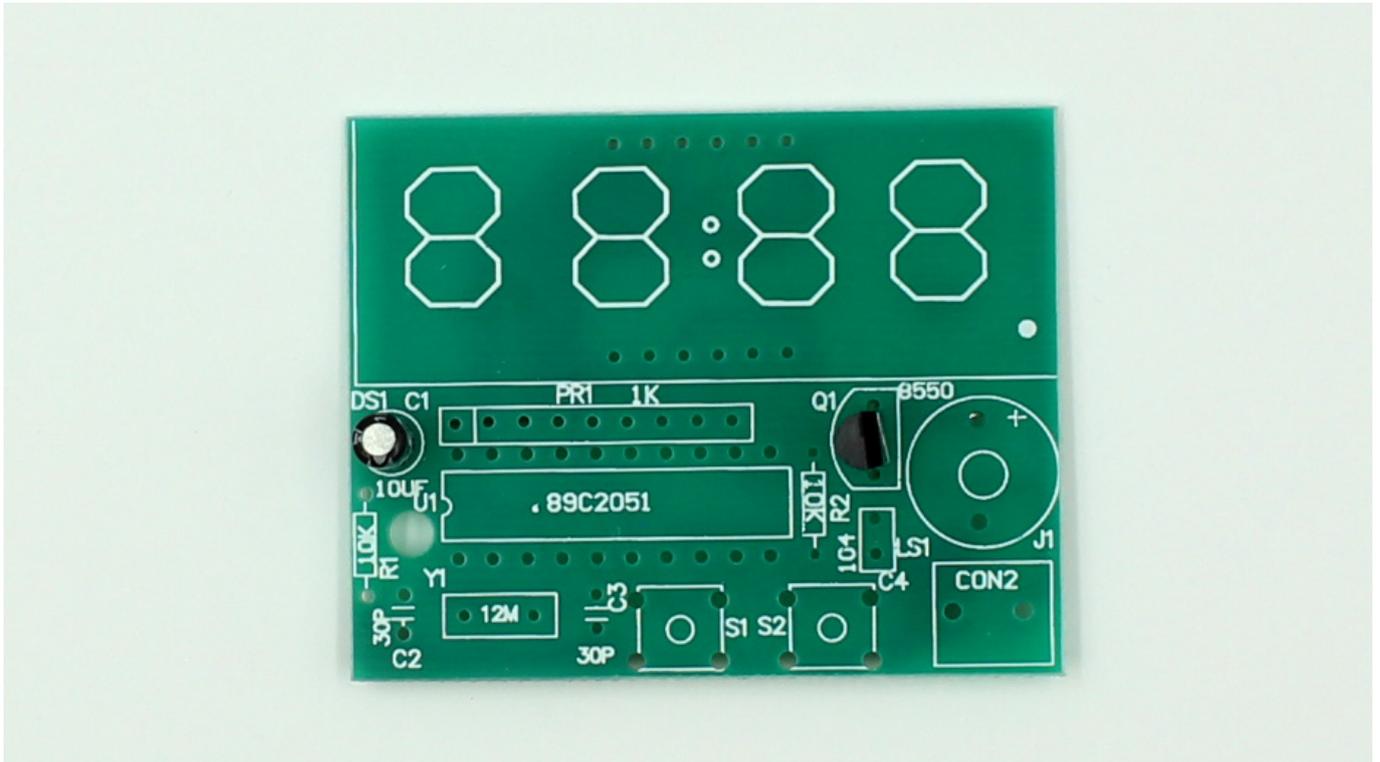
What do you do if it doesn't look right/

desolder using you **desoldering braid“** or solder sucker **but remember to not put too much heat in and fry your components (give the componets a rest tool cool off)** Notes**

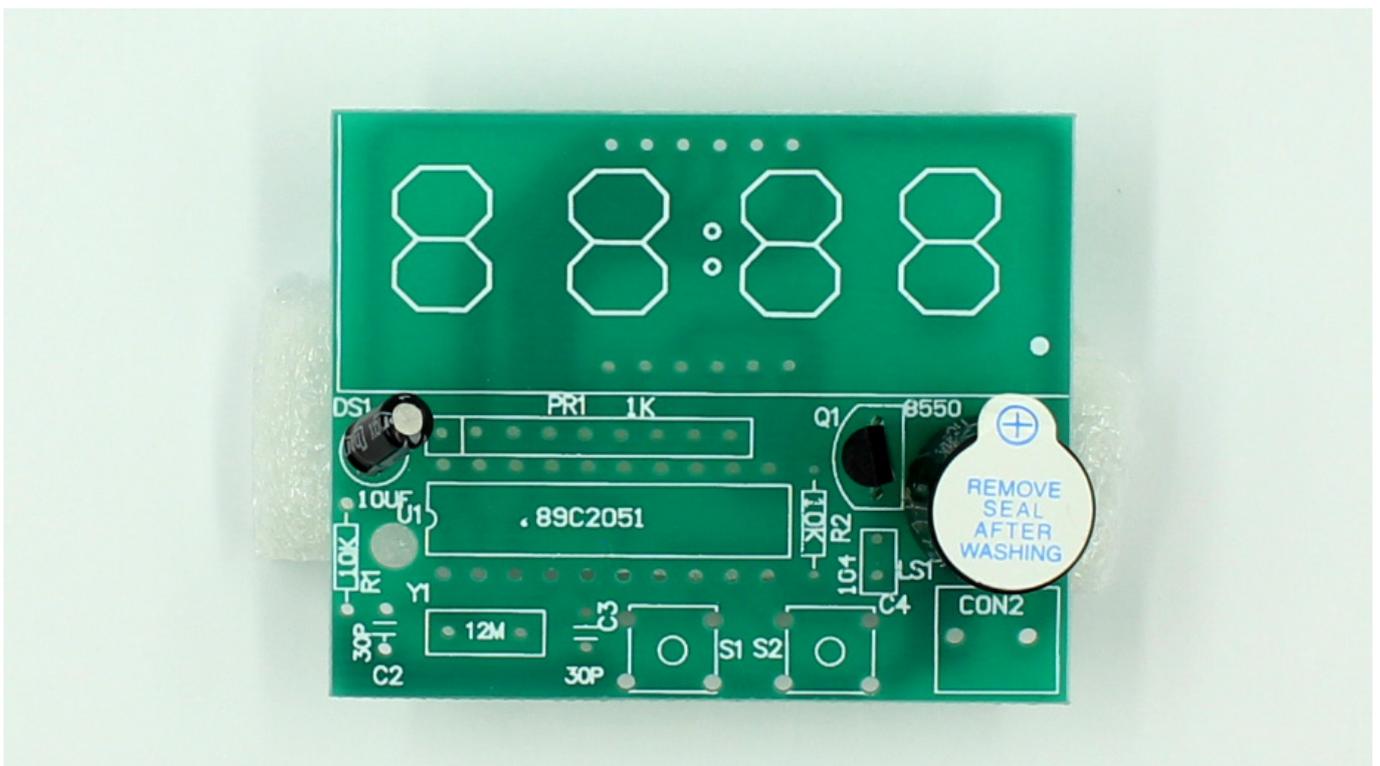
- Visit the ESO's in the Security office near the museum and pick up a hot work permit for the duration of the induction (plus half an hour)
- Ensure that the soldering kits contain the necessary tools and that the irons have usable tips before the start of the induction
- Ensure induction paperwork has been printed (Programming pod in staff area) and pens that can be found in the hurst behind the facilitators desk in the fab lab.

C51 Clock Kit Assembly

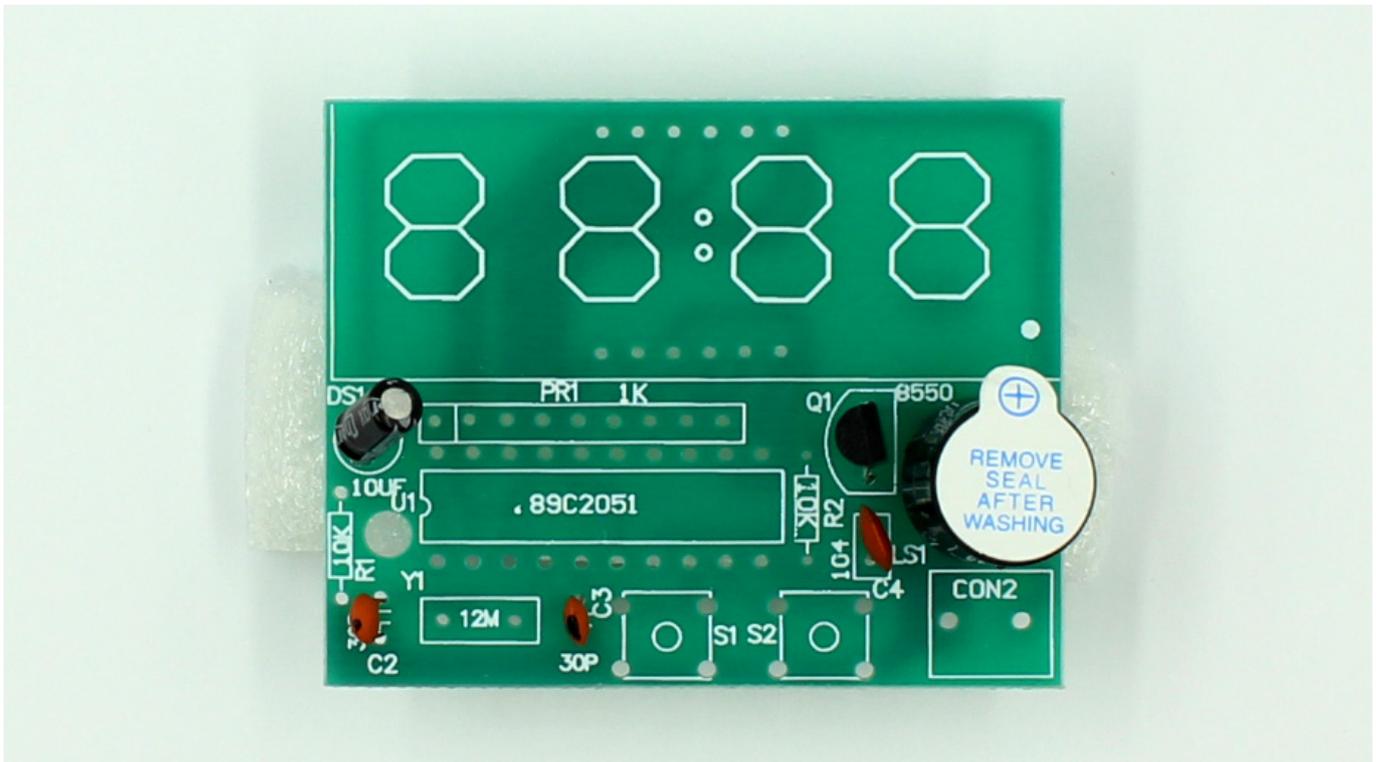
Capacitor (C1) and transistor (Q1). Make sure to put this in the correct direction.



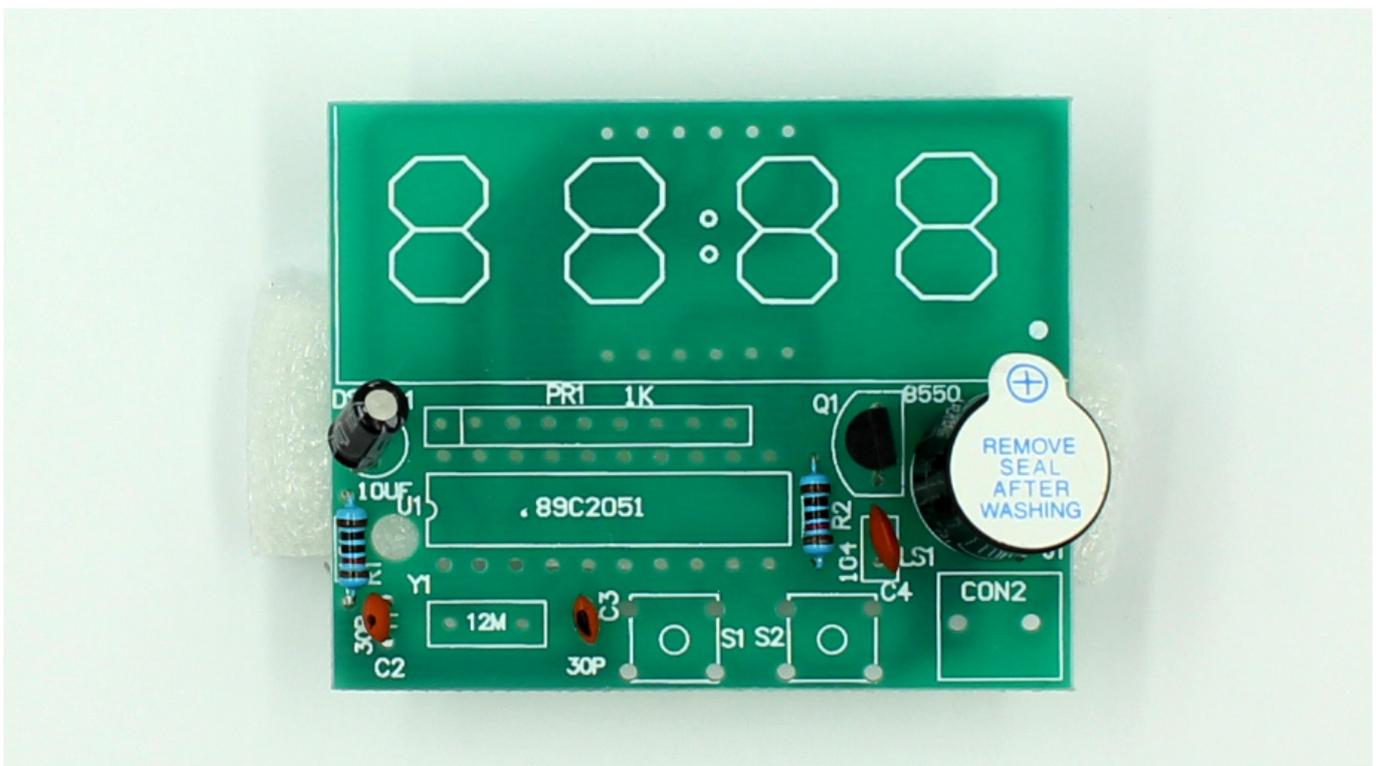
Piezo Buzzer (8550). Match up positive side with marks on board.



Capacitors, Large (C4), Small (C2,C3). Legs go in either way.



Resistors (R1, R2). Go in either way.



Momentary Buttons (S1,S2). Point legs out to the left and right. Quartz Oscillator (Y1).



Insert integrated chip, bend legs accordingly



Attach blue button caps



Using the Clock

- Left Button changes mode
- Right button changes values
- Press and hold Left Button to edit mode

Modes:

- A - Set Hour
- B - Set Minute
- C - "Chime" / Alarm On/Off
- D - Alarm 1 On/Off
- E - Alarm 1 Set Hour
- F - Alarm 1 Set Minute
- G - Alarm 2 On/Off
- H - Alarm 2 Set Hour
- I - Alarm 2 Set Minute