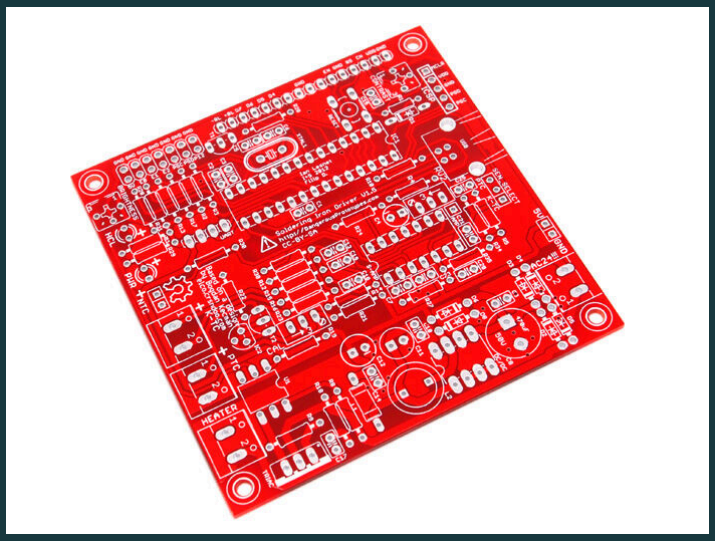
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INDUSTRIAL PRODUCT DATASHEET

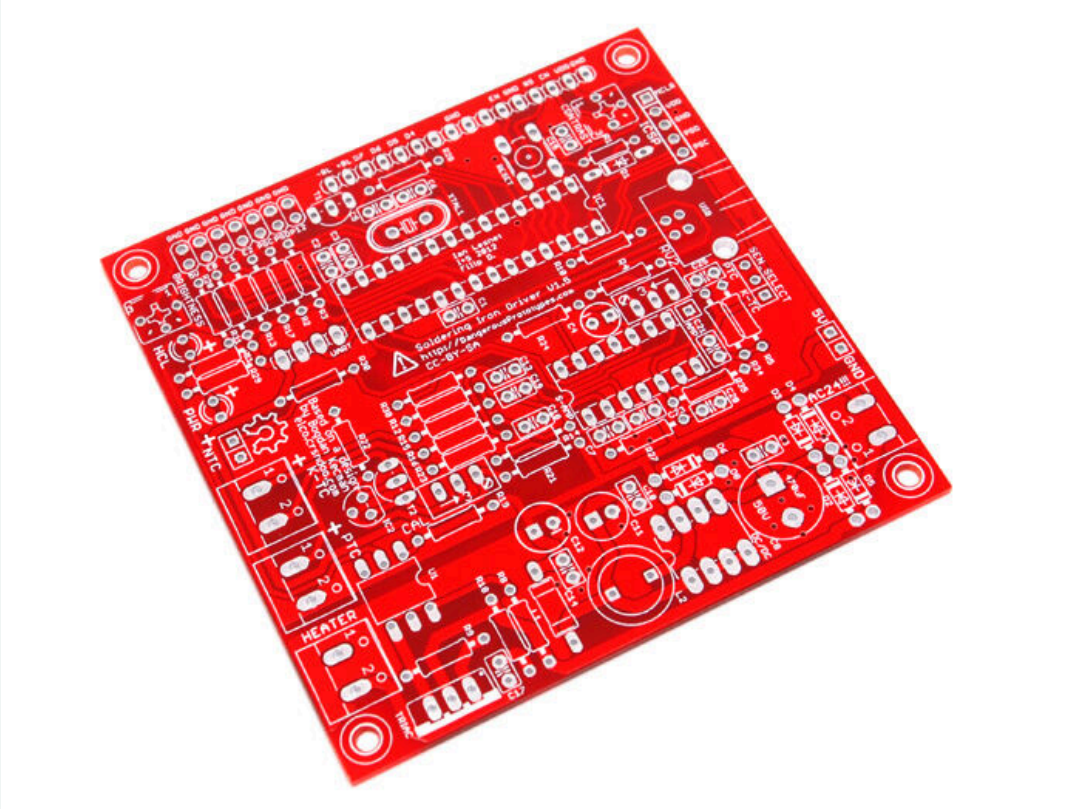
Open Soldering Station PCB

An open-source, universal soldering station controller PCB with PID temperature control and broad iron compatibility.

SKU	UPDATED	PRICE
319010046	2026-04-09 13:05:15	$7.00(Excl. VAT)



Overview



The Open Soldering Station PCB is an open-source, DIY controller motherboard for building a universal soldering station. It features PID temperature control with a 2x16 LCD and rotary encoders, and supports both thermocouple and PTC sensors found in irons like Hakko, Solomon, and Weller.

Key Features

Hardware hacking is more fun with open source, DIY tools. That's why **Arhi designed** a completely **open soldering station controller motherboard**.

The completed PCB is the heart of a soldering station, able to control several types of name-brand (and clone) soldering iron pencils. The key to this universal design is the analog front-end which is capable of reading both thermocouple and PTC temperature sensors commonly used in most soldering irons.

Tip status is monitored by a mircrocontroller, and accurately adjusted via PID temperature control. Temperature, configuration, and calibration settings are shown on a 2x16 character LCD display, and controlled with rotary encoder knobs. Soldering pencils currently tested by the community include Hakko, Solomon irons, and Weller PES51 irons. See a full list of **tested soldering pencils**.

Features

- Compatible with most PTC or TC type soldering irons
- Accurate and adjustable PID temperature control
- Potential for USB data logging, and firmware updates
- UART/serial data logging
- Uses a HD44780 2x16 character LCD
- Low noise, zero crossing AC heater control
- Dangerous Prototype's version is public domain (CC-0)

This is just a PCB. You will need to source parts, a transformer, and most importantly a suitable fuse.

WARNING

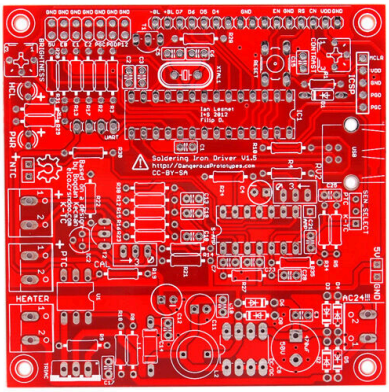
This PCB is intended to be used with hot pointy things and dangerous voltages. This is a community developed board, copies are available to interested experimenters. NO SUPPORT OR WARRANTY IS AVAILABLE WHATSOEVER. This project is not recommended for anyone.

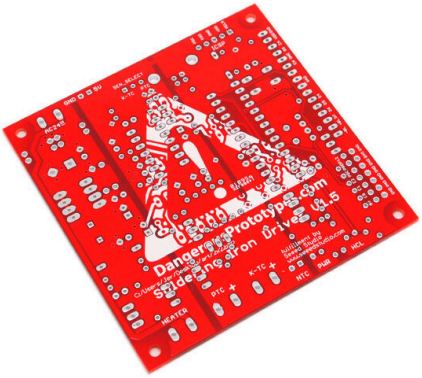
Resources

- **Documentation**
- **Design overview**
- **Discussion forum**

If you encounter any problems when using this product, here is the forum from which you can get the technical support.

Product Gallery





Compliance & Logistics

HSCODE	
UPC	841454115410
COO	CHINA

Resource Links

- https://www.seeedstudio.com/Open-Soldering-Station-PCB-p-1282.html

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