

# Hardware Assembly

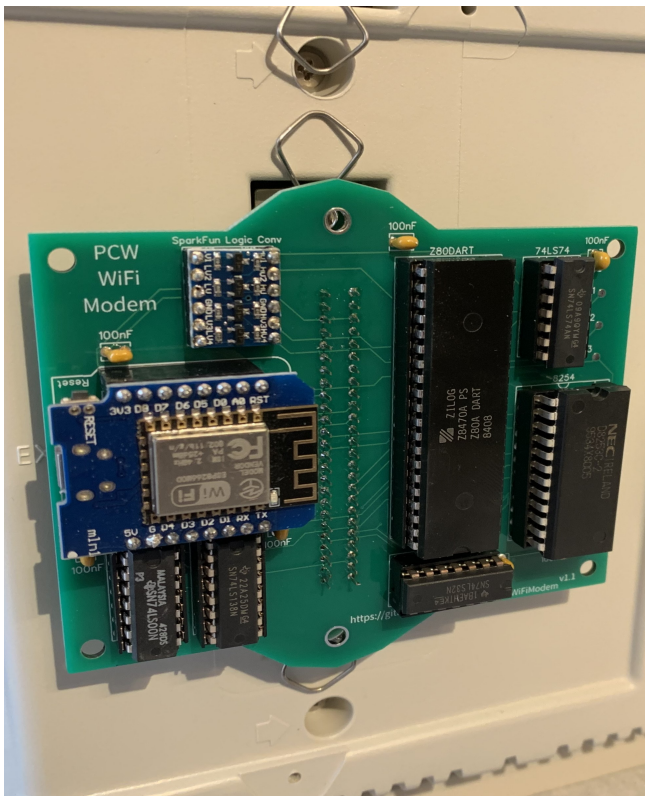
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## How to assemble:

**Never connect or disconnect the PCW WiFi Modem with the power on! Hot pluggable devices were not a thing in 1985.**



## Essential

**Ensure correct orientation of the PCW expansion connector to avoid damage to PCW or WiFi Modem:**

**Centronics connector PCB version:** the connector should be orientated and mounted on the back of the PCB (opposite side to the ICs) so that when the WiFi Modem is plugged in the text on the PCB is the right way up (see photo)

**Edge connector PCB version:** the connector should be mounted on the back of the PCB (opposite side to the ICs). You must always plug the WiFi Modem in so that the text on the PCB is the right way up - you should add an "Intercontact Key Plug" to the edge socket connector in line with the PCW's PCB gap to ensure it can only be plugged in this way.

**Ensure that Components are oriented correctly:**

- For the ICs - pay attention to the circular notch on the PCB IC outlines which you should align with your sockets, but most importantly with the ICs themselves. Note that the **Z80 Dart is mounted inverted** in relation to the other ICs.
- For D1 Mini and Logic Converter refer to the annotations printed on PCB

## Suggested order of assembly

1. Capacitors & Resistor
2. IC Sockets
3. Sparkfun Logic Converter
4. WeMos D1 Mini Sockets
5. Connector
6. ICs
7. WeMos D1 Mini

## Tips

- Use sockets for ICs and D1 Mini
- Check solder for bridging or dry joints before plugging in
- After connecting the modem and booting into CP/M you should see SIO/Centronics add-on appear on the screen.



CP/M Plus Amstrad plc  
v 2.9, 61K TPA, 2 disc drives, SIO/Centronics add-on, 1904K drive M:

(If this does not appear then something is wrong. It's recommended to re-check all soldering and ensure all chips are seated correctly etc)

- Assuming you are using the firmware in this project:

- Ensure you initially select 9600 baud on PCW (you can then change and save the default see *AT* commands)
- If using baud rates 9,600 or 19,200 then you should enable hardware flow control on the PCW and Modem. You should also use CP/M version 1.7 or above to avoid possible character loss at these speeds.
- After the initial setup (Wifi details etc), remember to save your settings with *AT&W* if you want them to be restored after a reset or power off.