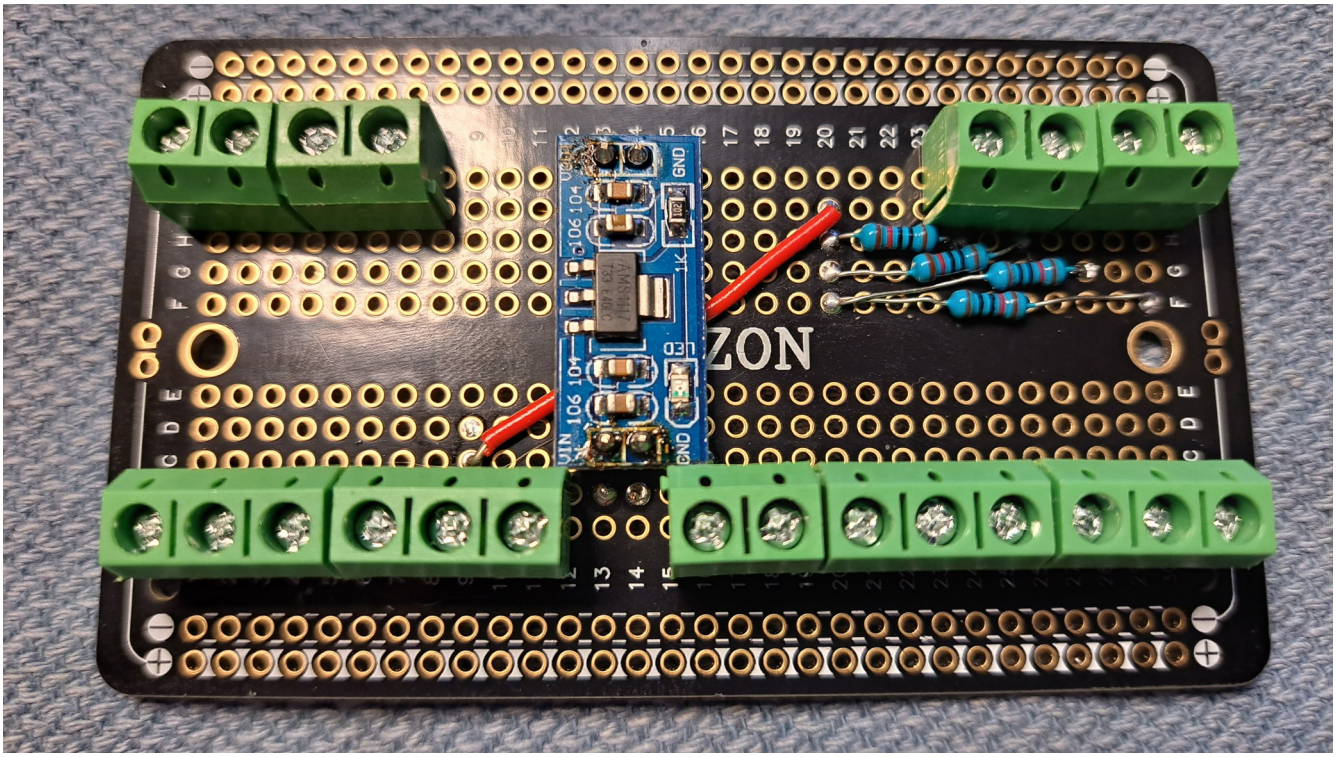
I almost always base my projects on PCB clones of breadboards to make planning easier. In rare cases, I will use plain old point-to-point boards if it doesn't involve a lot of jumper connections. Here's a link to the boards I used in the photos.

https://www.amazon.com/gp/product/B0BP28GYTV/



There are three PCBs that require soldering and that's the power break out board (pictured above), the valve controller board, and the interface board. Luckily, none of them involve anything painfully complicated.

The power break out board receives 5 volts from the buck regulator provides a set of power distribution terminals. Six for 5 volts, four for 3.3 volts, eight grounds, and set of four pull up resistors for the servo valve limit switches.

The pull up resistors are 10K and feed from the 5 volt supply. The 3.3 volt supply was an after thought, or I would have fed 4.7K resistors from there.

The little blue board in the middle is an AMS1117 3.3 volt 800 mA regulator that feeds from the 5 volt supply and outputs to the four terminals in the upper left. Below is a link to these regulators.

https://www.amazon.com/gp/product/B074FDLCLB/

Thus far, I am only using the 3.3 volt supply to power the small speaker that I use for the Raspberry PI audio output.

The condenser and dephlegmator valves aren't stepper motors, but they have both upper and lower limit switches. These are just plain old DC motors and their position is merely tracked by how many milliseconds that they get power in either direction. This is the reason for the Calibrate Valves function of the still controller.

The motors are controlled by an L298N "H-Bridge" driver which is commonly used in robotics and RC cars. These drivers use 5 volt logic, so I2C logic level shifters are used so the 3.3 volts from the Raspberry PI GPIO pins can control the driver.

If you look at the source code in valve.c you will see the GPIO pin assignments for the valve motors. Looking at the diagram below, the green header connections to GPIO pins 25, 24, 21, and 20 from left to right.