

A heating plate idea.

The traditional recipe for these uses an incandescent bulb and a dimmer. As the bulbs are being phased out I suspect even the oven lamps will become more difficult to find and the lamps and the holders aren't exactly cheap even now.

I have quite a few 'wall warts' left over from numerous dead or replaced items of equipment also 'proper' power supplies for electronic equipment and left over computer power supplies which provide 12 volts at plenty of current – also 3.3 and 5 volts. All useful on the bench.

A look around revealed 50 watt resistors can be had for less than oven lamps and should last longer too. Dimmers are also available for less than mains dimmers as pulse width modulation (PWM) controllers if you want to be fancy.

After a little experimenting I ended up using two 10 ohm resistors in series across a 12 volt supply stuck inside a barbecue smoker box I bought in IKEA. I used heat sink tape a coaxial power connector and added feet. Ventilation was thoughtfully built in by IKEA. If I were buying resistors I would pick an 18 or 22 ohm but I had a few 10 ohm 50 watters to hand. This gave a temperature of about 65 C over the resistors reducing to 40 C at the far end. Exactly what I wanted so who needs the dimmer. This runs quite happily off a small 12 volt 1 amp supply as the current needed is only 0.6 amp. Everything is well within ratings and changing the supply will change the temperatures if you want.



As a bonus it holds the pollen slide preparation kit when not in use and is more robust than a bulb heated plate would be.



Glasig tea light holders also proving useful.

I'm working on converting a small Lixhult cabinet for drying and wax embedding duties but that may take me some time!

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