Making a Simple Dew Heater for a Camera

Warning: this is a DIY project that I've used several times but you should be careful to follow the instructions or there's a risk that it will melt or worse.

Warning II: I really mean it. I've done the maths for 32AWG nichrome wire at 12v and these numbers are safe. If you use a shorter length or thinner wire, it will get hotter and may damage your lens.

Materials

32 AWG nichrome wire.
Roll of duct tape.
12v LED light dimmer switch.
2-core 12v speaker cable.
Heat-shrink cable connectors (optional but recommended – get the ones with solder in)
Material to make a soft case for the heater with.
a long strip of Velcro big enough to go right round your camera lens with a couple of inches spare.

Steps for a 58mm lens

1) Cut an 80 cm length nichrome wire and fold it into a rough W.
2) Lay a 30cm strip of duct tape on a flat surface, sticky side up.
3) Stick the nichrome to the tape, ensuring that it doesn't touch itself anywhere, and that the two ends stick out at one side.
4) Place another layer of tape over the top, to make a 'wire sandwich'. Press the tape down firmly between the loops of the wire.
5) Attach a length of the 2-core cable to the ends of the nichrome. The solder-heatshrink connectors make this much easier.
6) Attach the other end of the 2-core to the dimmer, and then provide a 12v supply to the dimmer.
7) Adjust the dimmer till the tape feels just warm to the touch.
8) Cut a piece of material twice as wide as the tape, plus enough for a hem.
9) Fold the material in half longways, insert the duct tape into the pocket and stitch up the ends. The connectors should hang out on one side.
10) That's it!!

To use the heater, focus then wrap carefully round the lens and hold it in place with the Velcro. You can stitch the Velcro onto one end if you want but be careful not to stab the wire.