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CS207 lab5-motor
Mr. Alex

P1:

My measurements:
V1 = 4.78v
V2 = 0.85v

My calculated values:
V=IR I=V/R

I = V/R
= 5/(560 + 10000 + 2200)
= 0.00039

V1 = I*(R2+R3)
= 0.00039 * (10000+2200)
= 4.758v

V2 = I*R3
= 0.00039 * 2200
= 0.858v

V1m = 4.78v is almost same as theoretical values V1t= 4.758v
V2m = 0.85v is almost same as theoretical values V2t= 0.858v

P2:

volts: 0.77 cels: 26.74 fahr: 80.12
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volts: 0.77 cels: 27.22 fahr: 81.00
volts: 0.78 cels: 28.20 fahr: 82.76
volts: 0.79 cels: 28.69 fahr: 83.64
volts: 0.79 cels: 29.18 fahr: 84.52
volts: 0.80 cels: 29.67 fahr: 85.40
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volts: 0.79 cels: 29.18 fahr: 84.52
volts: 0.78 cels: 28.20 fahr: 82.76
volts: 0.78 cels: 27.71 fahr: 81.88
volts: 0.77 cels: 27.22 fahr: 81.00
volts: 0.77 cels: 26.74 fahr: 80.12
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volts: 0.77 cels: 27.22 fahr: 81.00
volts: 0.76 cels: 26.25 fahr: 79.24
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When the fan turns on the volts are increase, this is normal because the fan also is a

resistance.

the bold texts are strange, because the context are 26.25 only this there are increasing, and the interval is two serial printing time. I think this is interference signal. Not alway has.

The serial print is slow and in block.
In this code when the fan works, the temperature sensor does not work in same time, and it will wait fan turn off to work. If the fan keeps working in long time, but the temperature is lower than 27 and fan still work. This is made the serial print is slow and in block.
I think change the code about the function motorOnThenOff(). To make one turnMotorOn() and one turnMototOff(), put the two if()s to check temperature before the turnMotorOn() and turnMototOff(), if temp higher than 27 turn on the fan if temp lower than 27 turn off the fan.