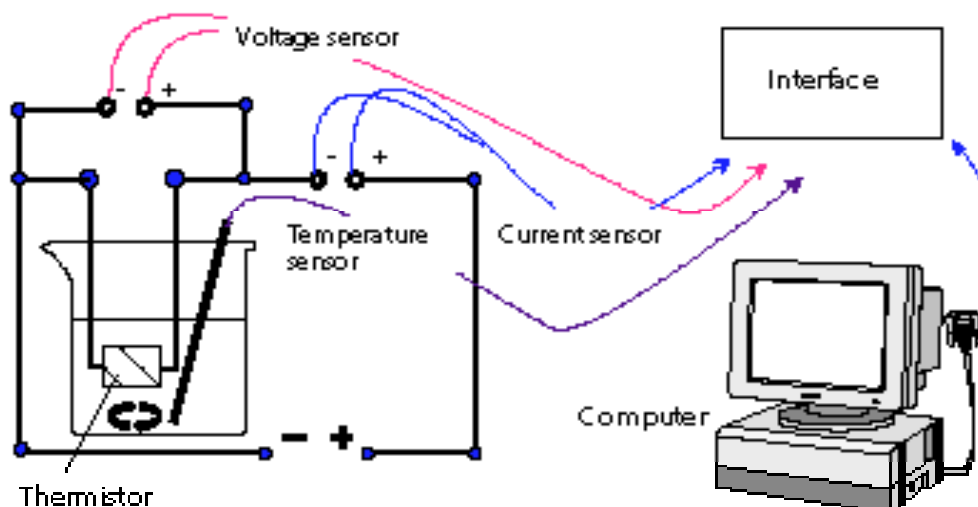


# Thermistor characteristics



The voltage & current of a thermistor are measured as its temperature changes. Sensors allow graphs of voltage and current to be plotted against time. Not only can the resistance of the thermistor be calculated but also the relationship of  $\ln(\text{temperature})$  against  $1/\text{current}$ .

## Apparatus

TH7 thermistor, smoothed power supply, heater/stirring unit, interface, temperature, voltage and current sensors.

## Setting up

Connect up the circuit as shown.

Connect the current sensor to socket 1, the voltage sensor to socket 2 and the temperature sensor to socket 3.

If the sensors are adjustable, set a 1A range on the current sensor, a 5V range on the voltage sensor and a 0-100 range on the temperature sensor. Some systems recognise the sensors you attach automatically, in others you do this yourself.

You may be able to set up the software to plot the resistance ( $V / I$ ) against temperature as the experiment proceeds.

