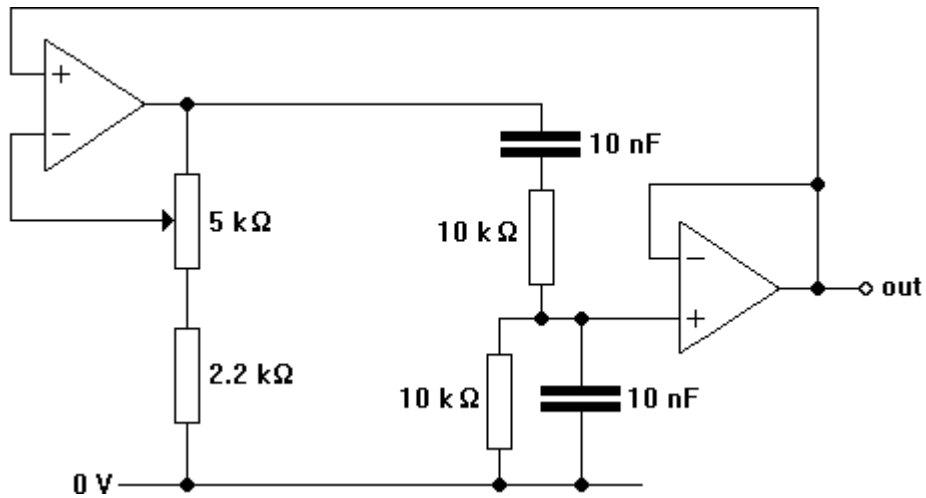


## A Wein oscillator

1. Assemble the sine wave oscillator shown below.



2. Connect an oscilloscope to the output. Adjust the potentiometer. If all is well, you should obtain a distorted sine wave with a frequency of about 2 kHz.
3. Adjust the potentiometer until the sine wave has the least distortion. Measure its period and calculate its frequency. Compare this with  $1/2\pi RC$ .
4. Try the effect of using 100 pF capacitors in the notch filter. How fast can you make the system oscillate by altering the resistor values?
5. How slow can you make the system oscillate? Start off with 100 nF and 1 MΩ in the notch filter.