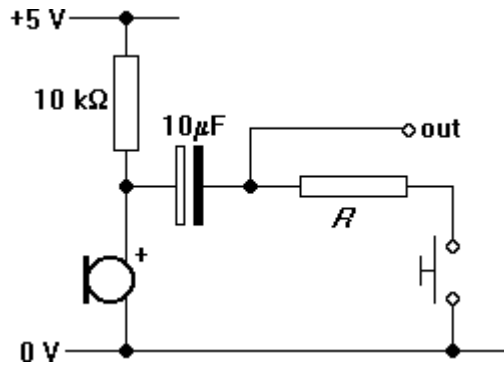


Output impedance of a microphone

1. Set up the circuit shown below with $R = 100 \Omega$. The microphone is an electret one, so it needs a $10 \text{ k}\Omega$ pull-up resistor. Use a CRO to look at the signal at OUT.



2. Sing a note into the microphone and see what happens to the CRO trace when you press and release the switch.
3. By trial and error, find a value of R which halves the peak value seen on the CRO screen when the switch is pressed.
4. Explain why this value of R is the output impedance of the microphone circuit.