In this video, you’ll learn how to measure the transient response of an RLC circuit using a virtual oscilloscope.

Get started by building the RLC circuit. Connect the signal generator to provide the source.

Now, connect the oscilloscope leads to measure the voltage across the capacitor.

With the circuit complete, you’re ready to take measurements. Run the model and turn on the signal generator. Set the waveform to a square wave.

Now turn the Oscilloscope on. With a fixed window, the signal travels across the oscilloscope. To make the plot easier to read, switch the oscilloscope to triggered mode.

You can also set the number of cycles you would like to observe.

In this underdamped circuit, the response is quite oscillatory.

Let’s damp the oscillations a bit by increasing the capacitance. You have to stop the model before adjusting the element values.

The updated circuit is nearly critically damped but still retains a small oscillation.