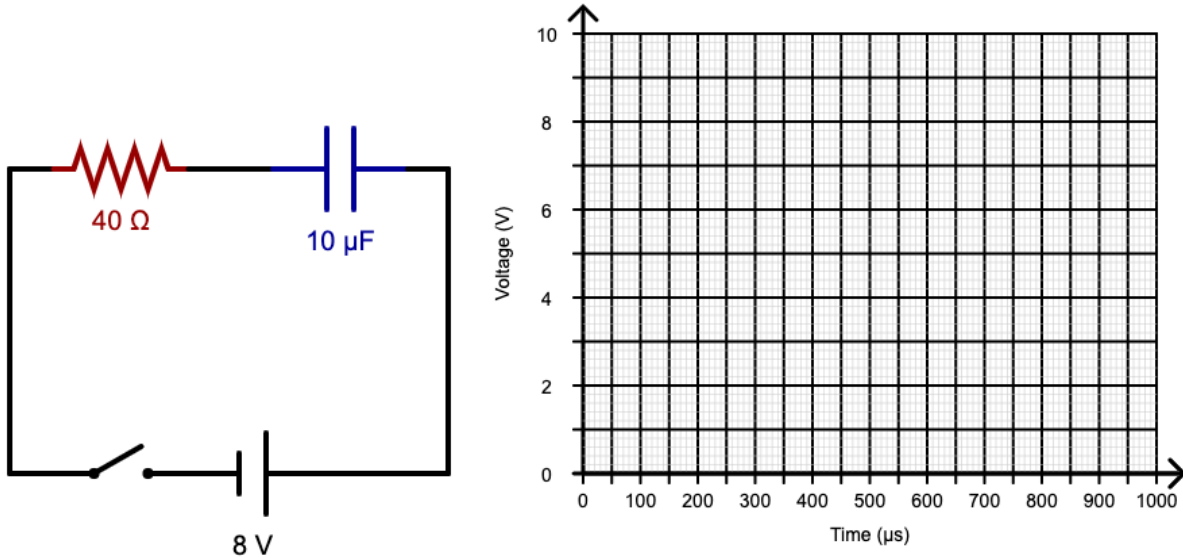


# RC Series Circuit Visualizer (Graphs)

Step 1: You will have a RC series circuit where you can view the current through the circuit and the voltages across the resistor and the capacitor. The capacitor will start uncharged and you can short the capacitor when the switch is closed to quickly restart the charging process. Set your system to match the one in the picture below. Close the switch and then graph your results neatly on the axes below. Make sure you label your lines to show which voltage goes with each circuit component



Step 2: Notice that the two voltage graphs have a point where they intersect. What is special about the voltage where they intersect? Why might the time value when they intersect be important when talking about this circuit?

Step 3: Change to a few different resistances for your resistor. What things change about your graph and which do not change? Give as much detail as possible.

Step 4: Change to a few different capacitances for your capacitor. What things change about your graph and which do not change? Give as much detail as possible.

Step 5: Change to a few different voltages for your battery. What things change about your graph and which do not change? Give as much detail as possible.