



**Under Construction:** VA7FI is editing this section, please do not edit it until this notice is taken down.

# Electronics

In this section we'll discuss the three basic electronic components:

Name	Property	Unit	Symbol
Resistor (R)	Resistance	Ohm ( $\Omega$ )	<input checked="" type="checkbox"/>
Inductor (L)	Inductance	Henry (H)	<input checked="" type="checkbox"/>
Capacitor (C)	Capacitance	Farad (F)	<input checked="" type="checkbox"/>

## Resistor

The easiest component to start with is the resistor.

## RLC Impedance

Impedance ( $\Omega$ )	Low Frequency	Medium Frequency	High Frequency
Resistance, R	Doesn't depend on frequency		
Inductive Reactance $X_L = 2\pi f L$	Low	Medium	High
Capacitive Reactance $X_C = \frac{1}{2\pi f C}$	High	Medium	Low

## RLC Addition

	Series	Parallel
Resistor, R [ $\Omega$ ]	$R = R_1 + R_2$	$\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2}$
Inductor, L [H]	$L = L_1 + L_2$	$\frac{1}{L} = \frac{1}{L_1} + \frac{1}{L_2}$
Capacitor, C [F]	$\frac{1}{C} = \frac{1}{C_1} + \frac{1}{C_2}$	$C = C_1 + C_2$

# Questions

