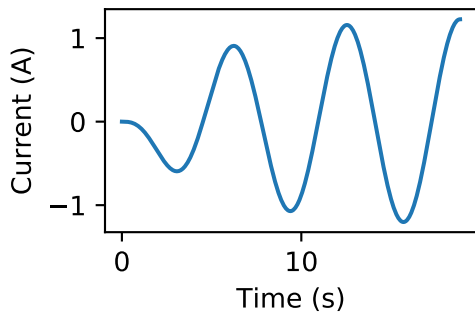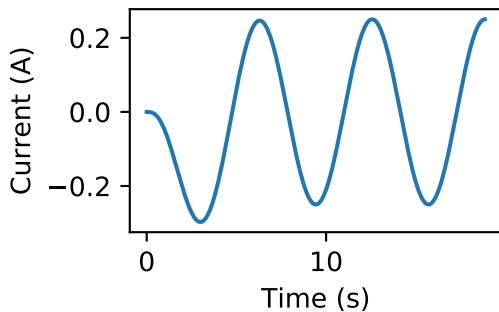**Time evolution graphs for each Resistance**

Underdamped R=0.4 L=1 C=1

Critically Damped R=2 L=1 C=1

Overdamped R=10 L=1 C=1