

1. Problem

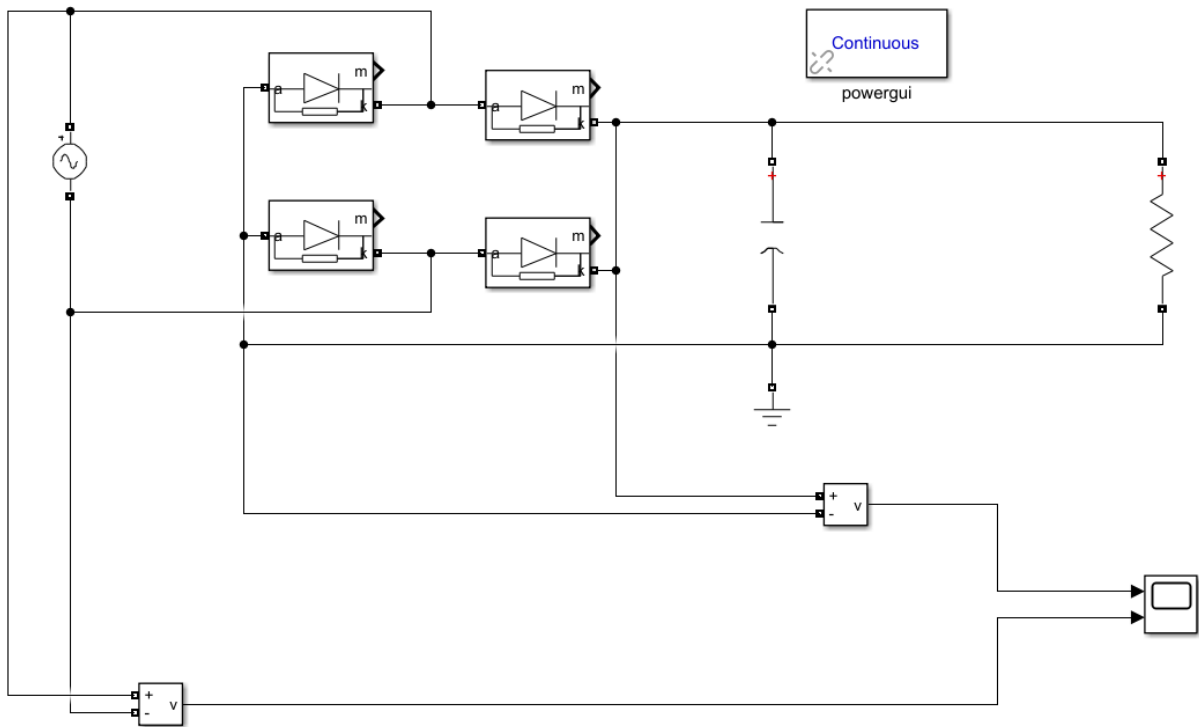
Simulate the full bridge rectifier filter circuit.

Requirement:

- The block diagram
- The appropriate parameters for the element used

1. Solution

The block diagram is shown below:



The waveforms for input voltage (5Vpp, 50Hz) and output voltage are shown below. The forward voltage for the diodes is 0.8V, the resistance is 1k Ω , and the capacitance is 100 μ F. The R and C are such that $RC > (3 - 5)T/2$, which is indeed the case (1k Ω *100 μ F=100ms=0.1s=10T/2).

