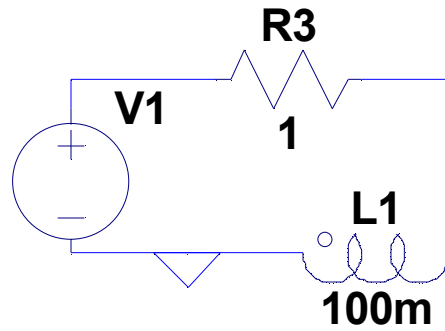
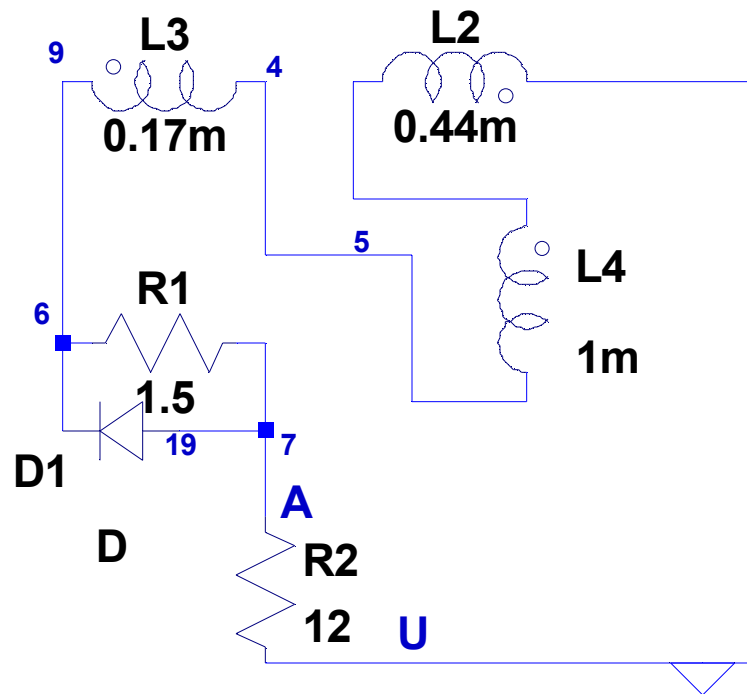


SINE(0 170 60 0 0 0 1000)



Lionel ZW Transformer Whistle Circuit  
Victor Roberts, January 22, 2022  
Rev. 2



K1 L1 L2 L3 L4 1

.tran 1

.model ZW\_Diode D(Ron=0.01 Roff=1Meg Vfwd=0.1 Vrev=30)