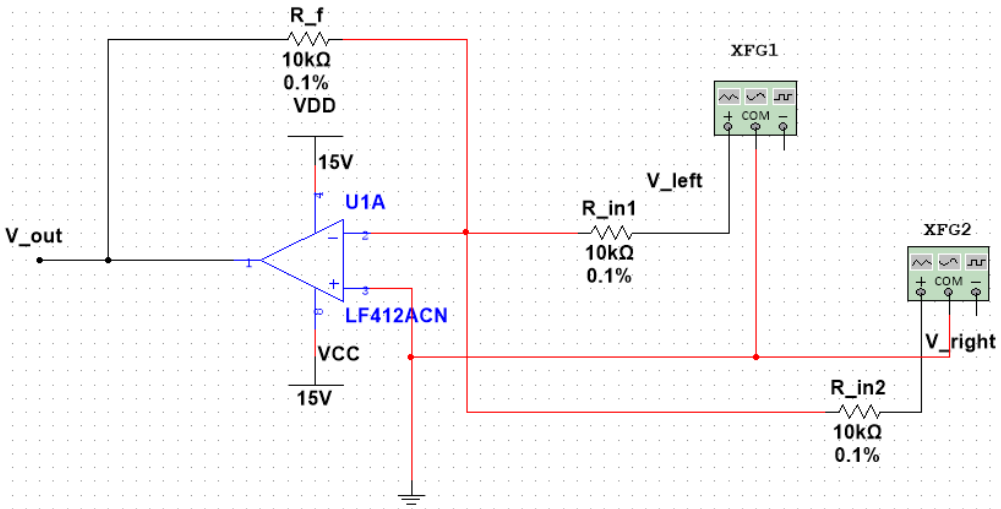
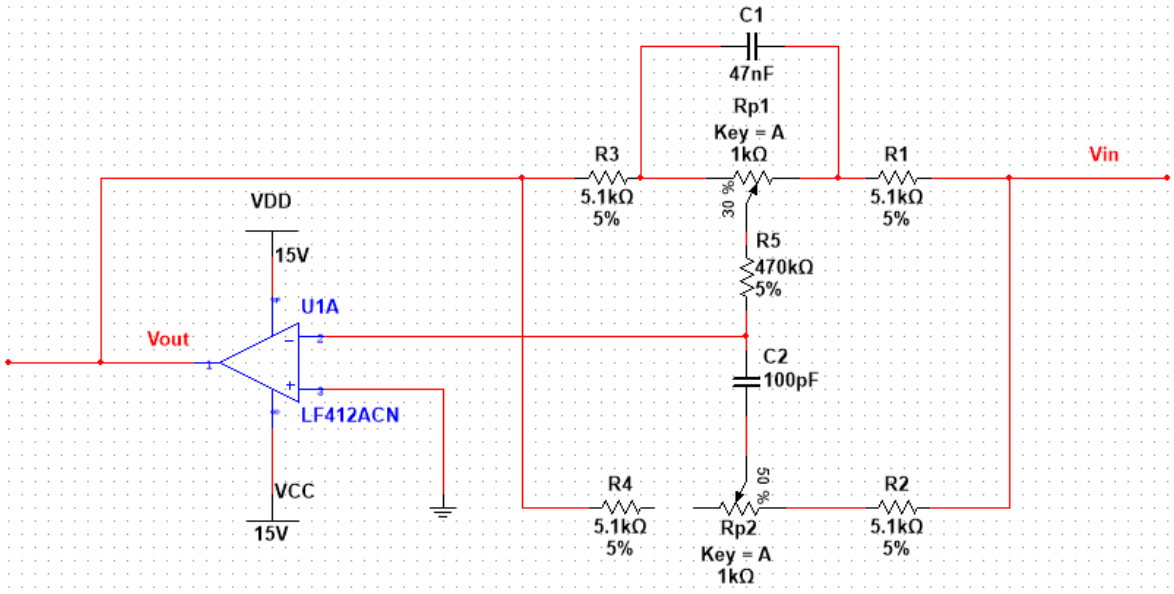


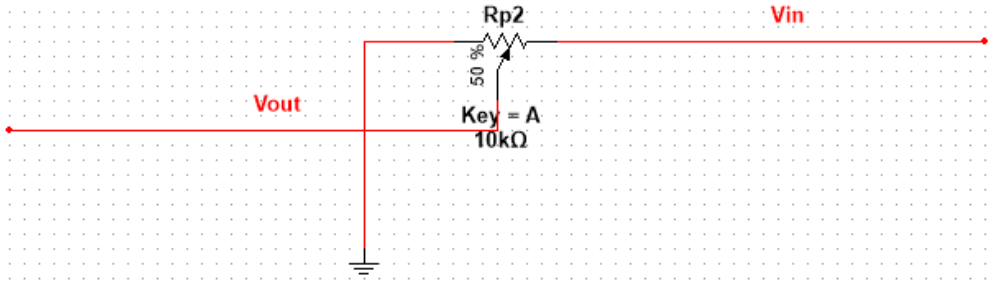
For R_f, i use 8.2k to replace it.

-V_out = -(0.5+0.5) = -1V
Vout max = 1V, Vout min = 0V

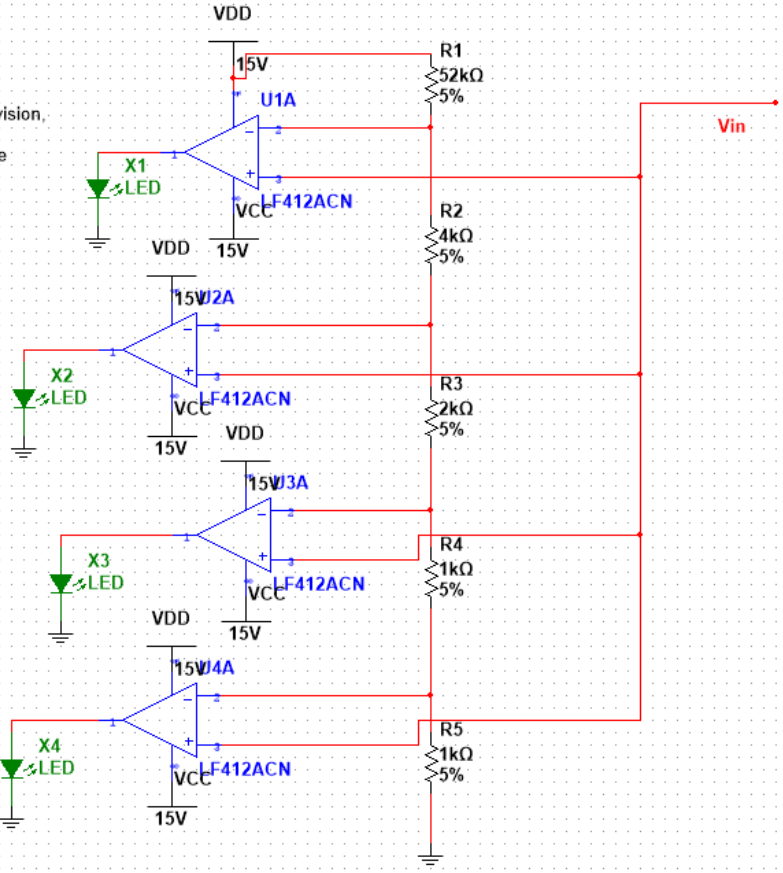
According to the function, (Vout-Vin)/(5.1k+5.1k+Rp2)=(Vin-Vout)/(5.1k+5.1k+Rp1)
Vout/Vin = 1, so gain of the curcuit = 1 which is meet the requirment

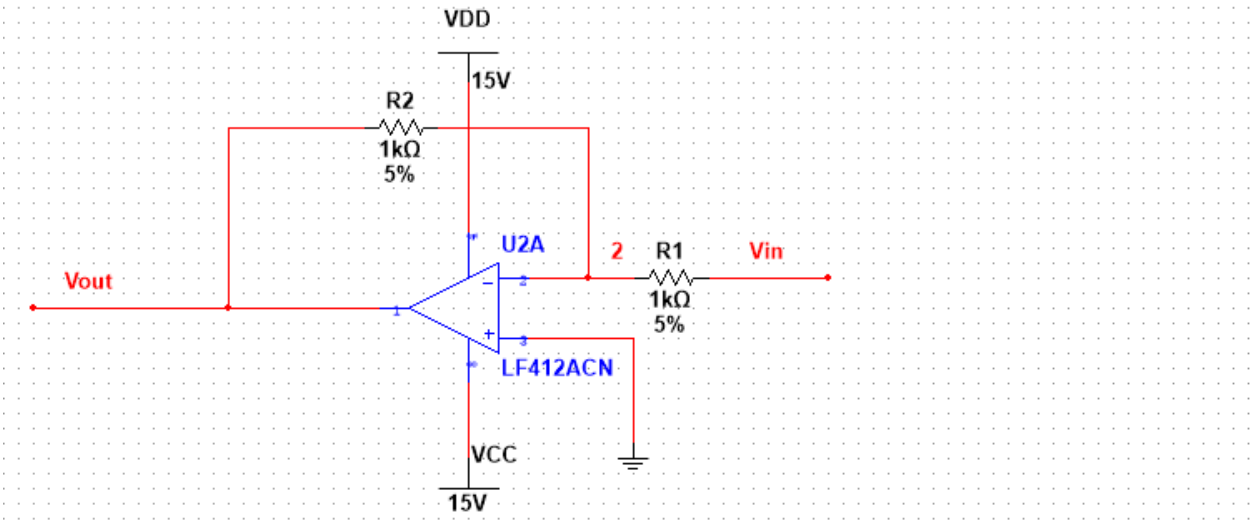


we only have the 10k potentiometer, so this is our only choose



base on the solve the equation, for voltage division,
the ratio for R1-R5 is 52:4:2:1:1
however, i dont have enough resistor, i replace
2.2k->2k
3.9k->4k
47k->52k





Cuz the max output voltage is 1V, and lets make R1 = 1k
R2 = 1k/1k = 1k