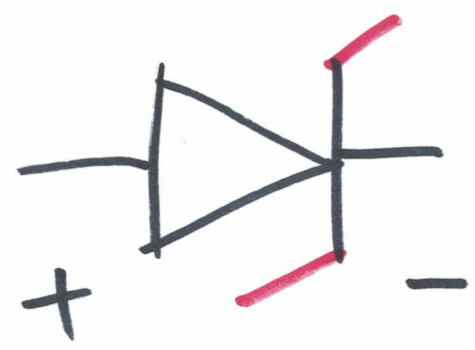
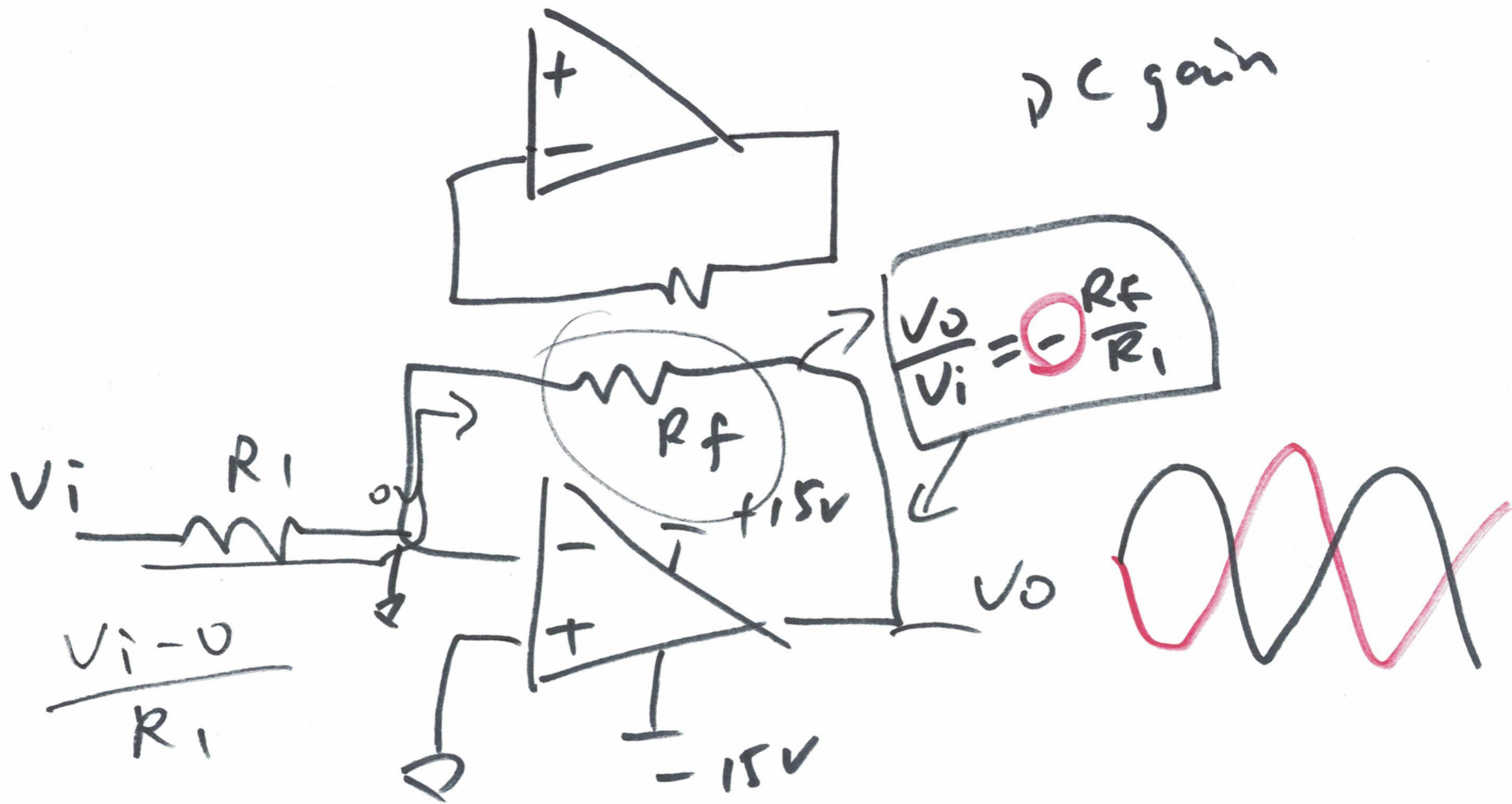


Zener Diode
 ↓
 Voltage Reference



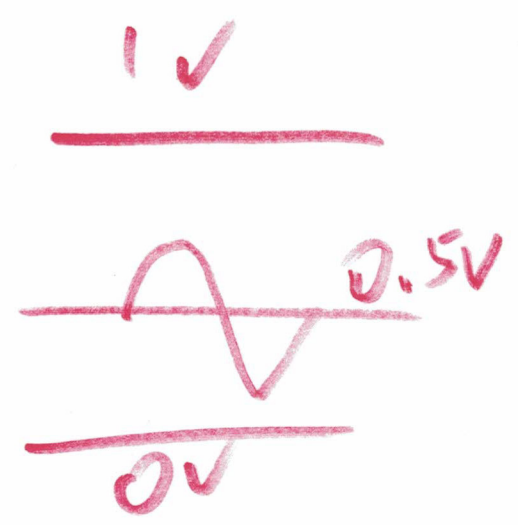
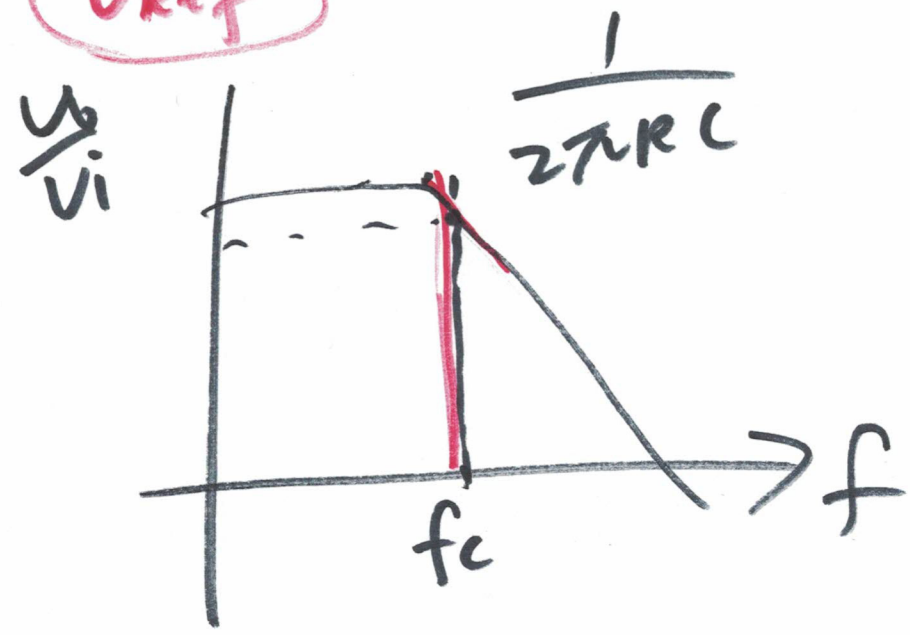
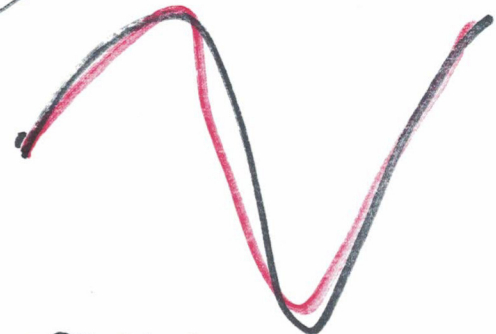
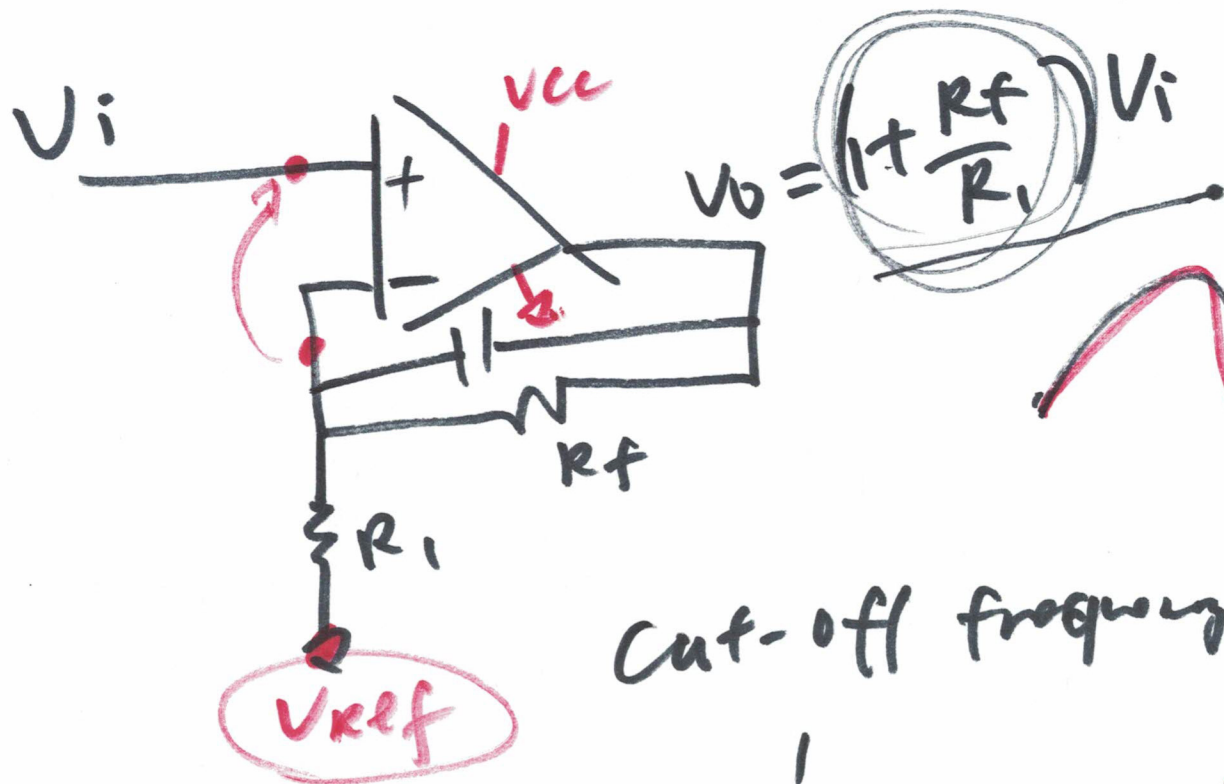
①



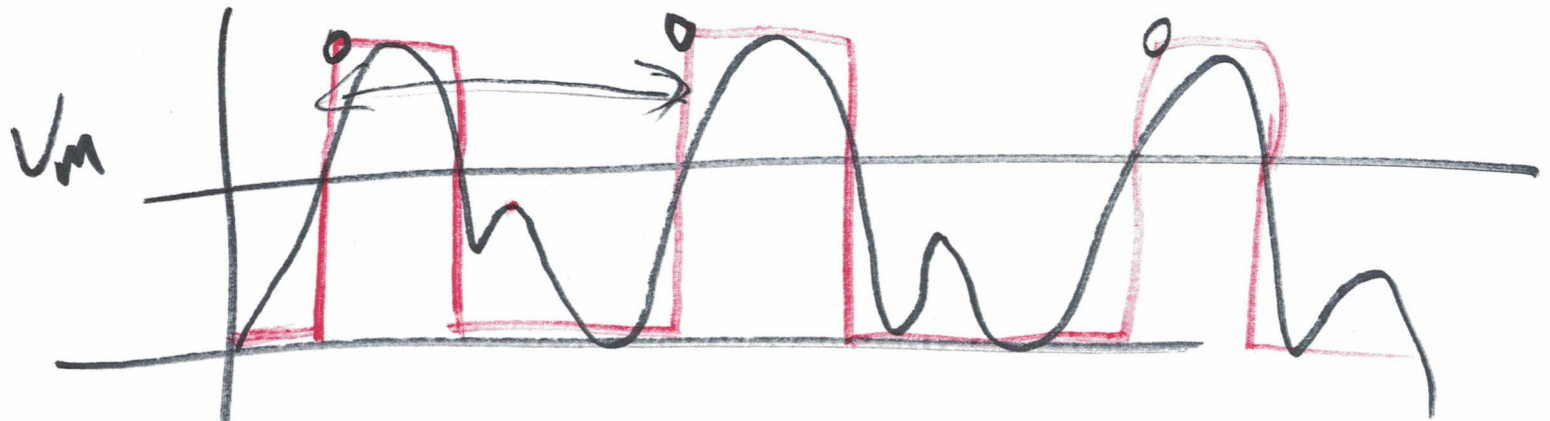
Inverting Configuration

TIA Transimpedance
Amplifier

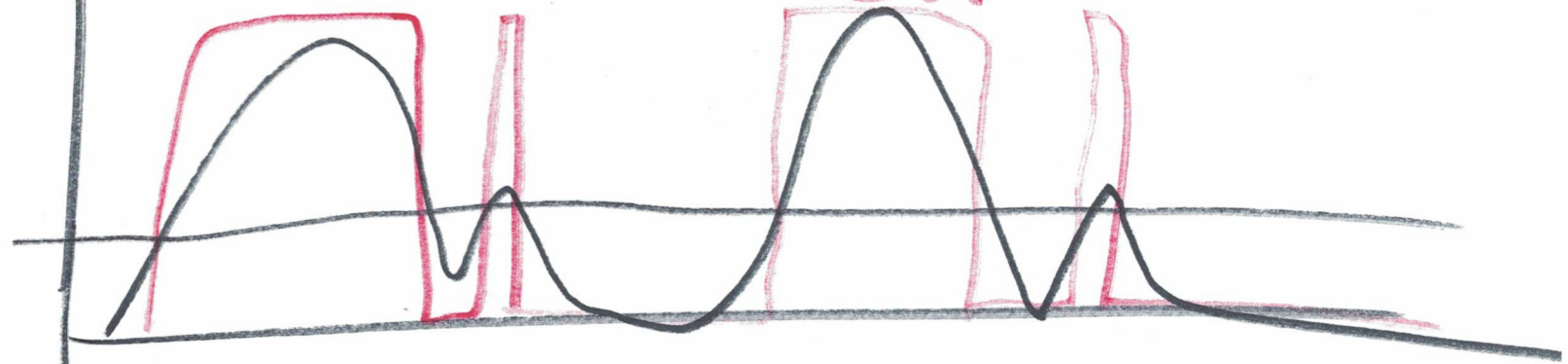
②



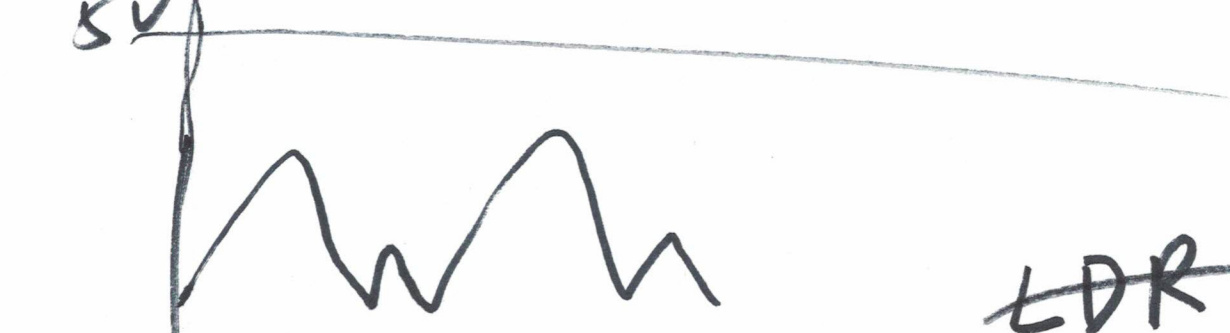
③



$$V_o = \frac{(V_p - v_m) A_{OL}}{1 + A_{OL}}$$

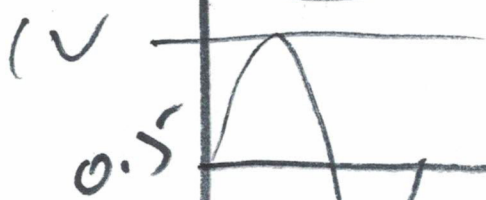
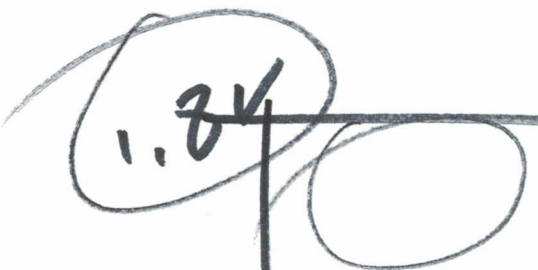


(4)



~~LDR~~

Low Input
Voltage
Regulator



1.2V → 1V
 5V → 3.3V
 3.7V → 3.3V