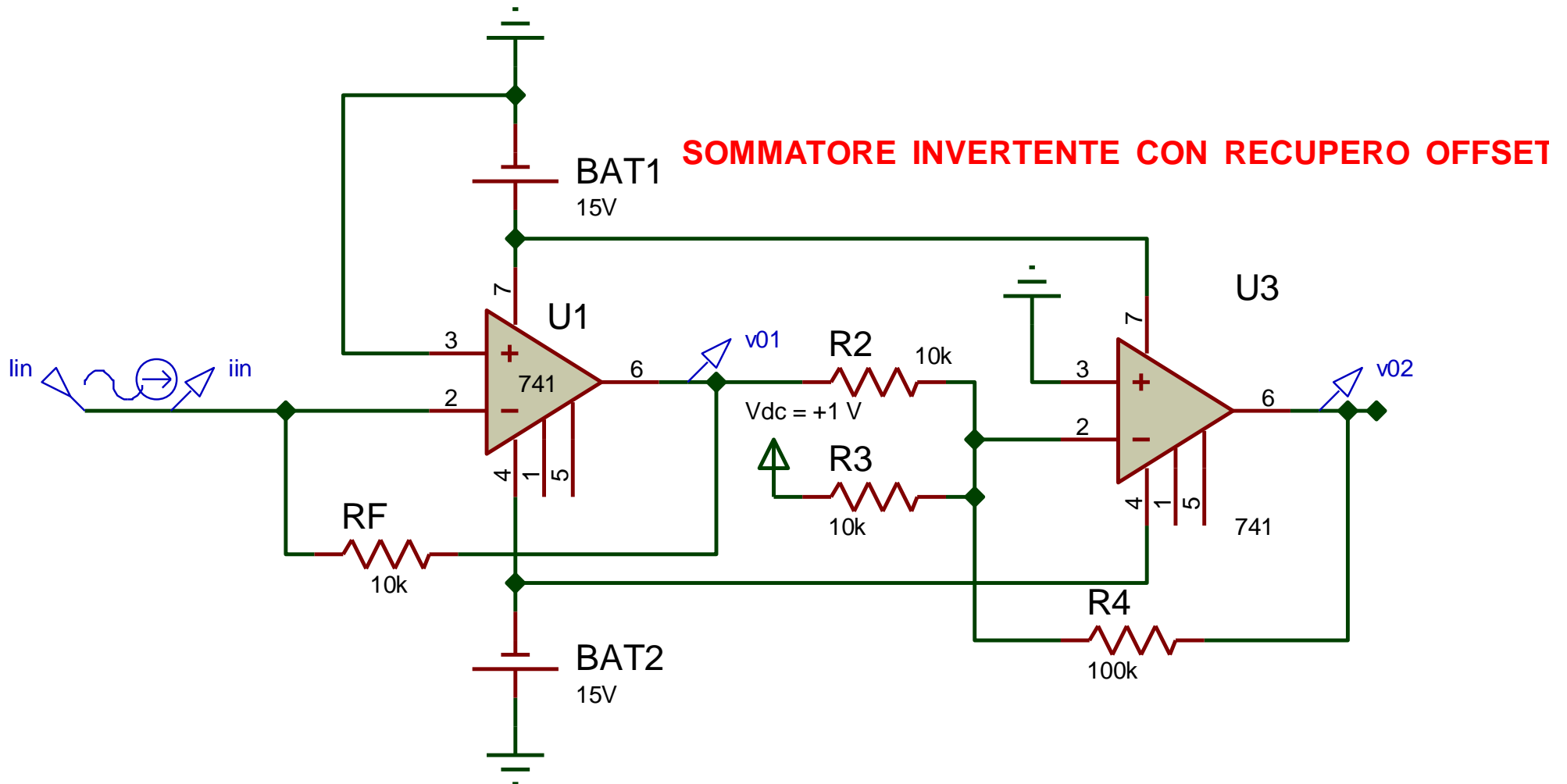


1. CONDIZIONAMENTO SEGNALE DI CORRENTE : CONVERSIONE I/V, RECUPERO OFFSET, AMPLIFICAZIONE (2 stadi invertenti)

CONV I/V INVERT



$$V_{01min} = - R_f * i_{inmax} = - 10 [K\Omega] * 200 [\mu A] = - 2 [V]$$

$$V_{01max} = - R_f * i_{inmin} = - 10 [K\Omega] * 100 [\mu A] = - 1 [V]$$

$$A_{f2} = - R_4 / R_3 = - 10$$

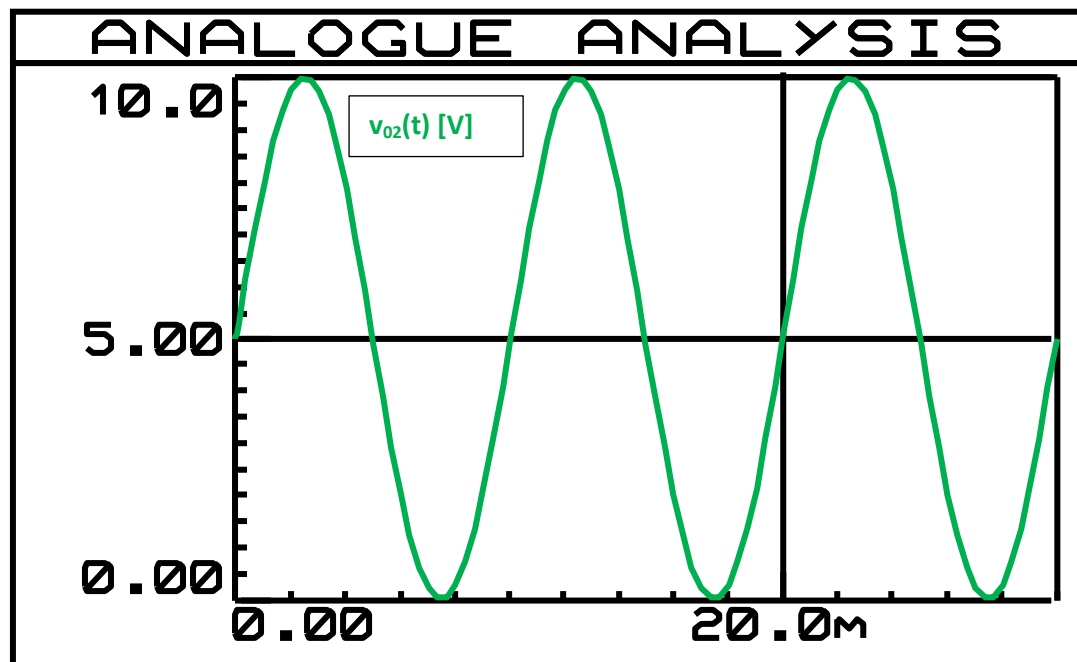
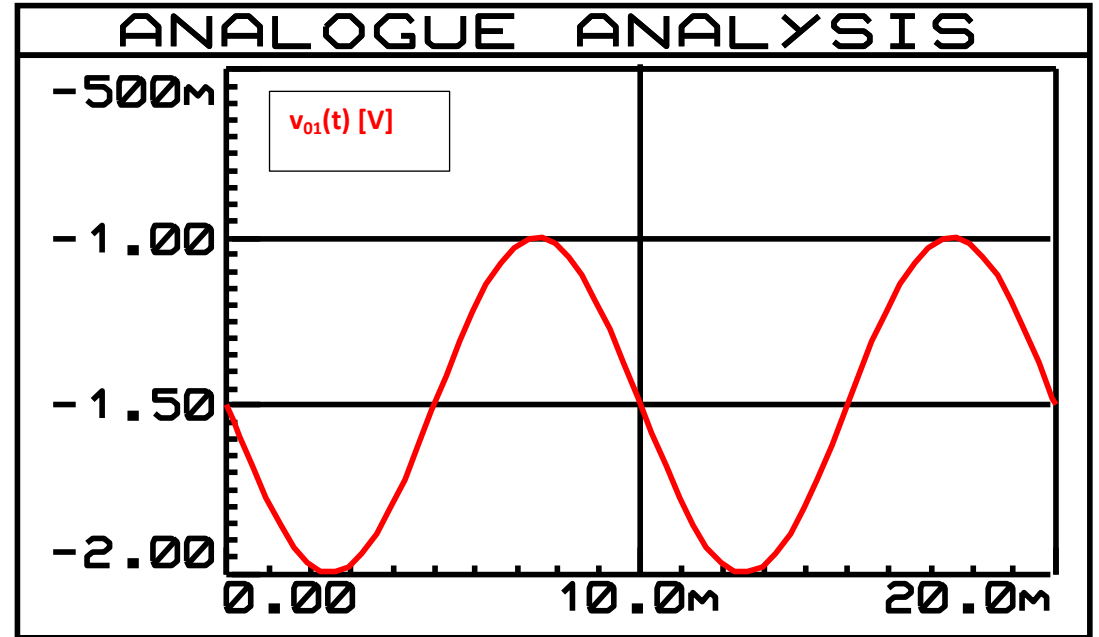
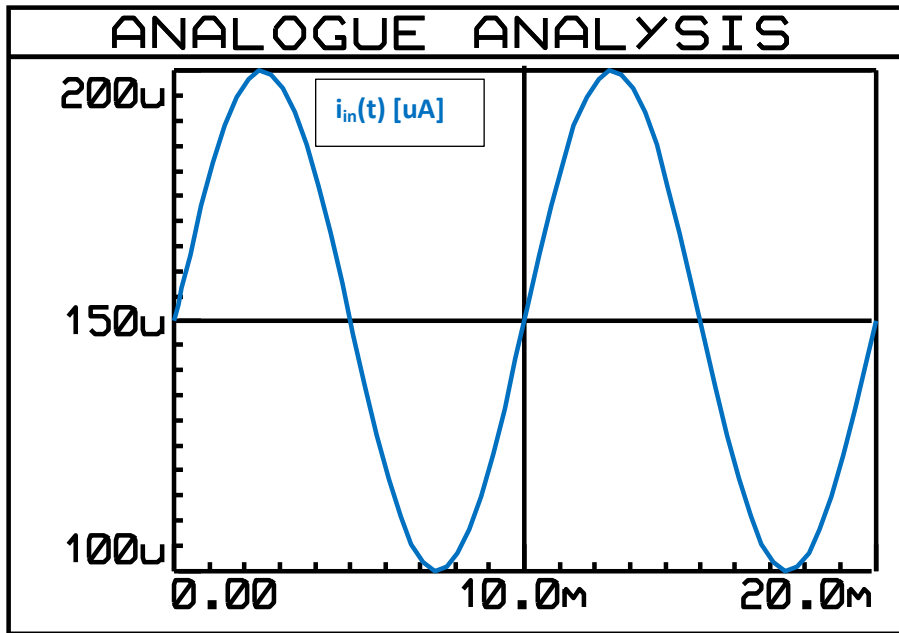
$$V_{dc} = + 1 [V]_{dc}$$

$$V_{o1 min} + V_{dc} = -2 + 1 = -1 [V]$$

$$V_{o1 max} + V_{dc} = -1 + 1 = 0 [V]$$

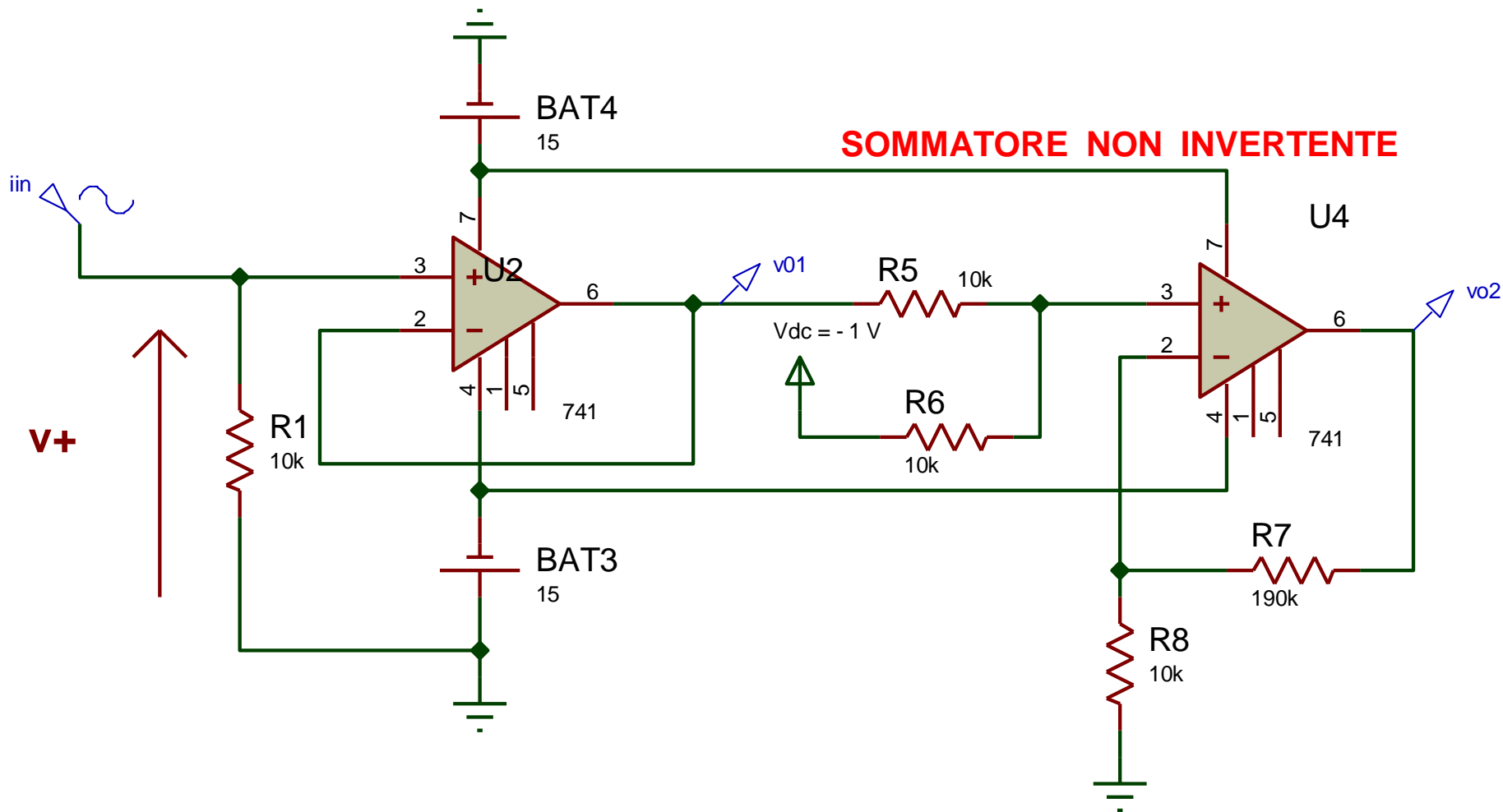
$$V_{o2 min} = -10 * 0 = 0 [V]$$

$$V_{o2max} = -10 * (-1) = +10 [V]$$



1. CONDIZIONAMENTO SEGNALE DI CORRENTE : CONVERSIONE I/V, RECUPERO OFFSET, AMPLIFICAZIONE (2 stadi NON invertenti)

CONV I/V NON INV



$$V_{01min} = R_f \cdot I_{inmin} = 10 [K\Omega] \cdot 100 [\mu A] = +1 [V]$$

$$V_{01max} = R_f \cdot I_{inmax} = 10 [K\Omega] \cdot 200 [\mu A] = +2 [V]$$

$$A_{f2} = 1 + R_7 / R_8 = +20$$

$$V_{dc} = -1 [V]_{dc}$$

$$V_{o1 min} + V_{dc} = +1 - 1 = 0 [V]$$

$$V_{o1 max} + V_{dc} = +2 - 1 = +1 [V]$$

$$V_{o2 min} = \frac{1}{2} \cdot 20 \cdot 0 = 0 [V]$$

$$V_{o2max} = \frac{1}{2} \cdot 20 \cdot 1 = +10 [V]$$

Attenuazione in 2° stadio = 1/2

