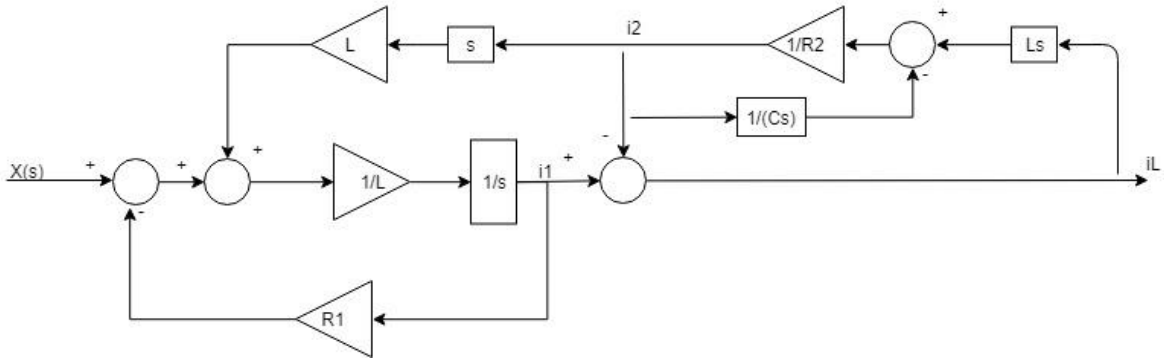
Ecuaciones:

$$x(t) = i_1 R_1 + L\frac{d(i_1 - i_2)}{dt}$$

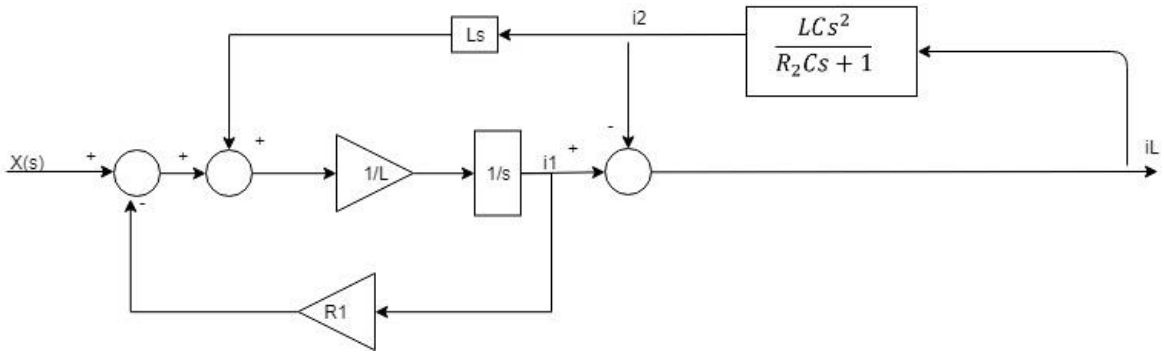
$$0 = i_2 R_2 + + \frac{1}{C}\int i_2 dt + L\frac{d(i_2 - i_1)}{dt}$$

$$i_L = i_1 - i_2$$

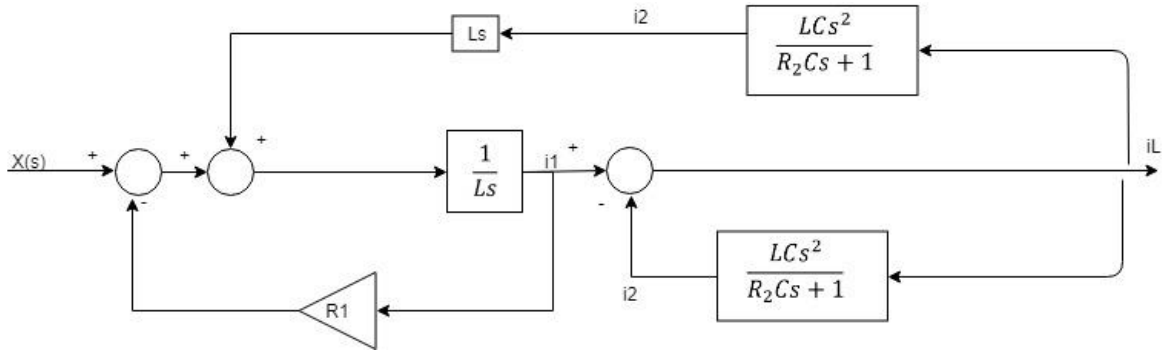
1)



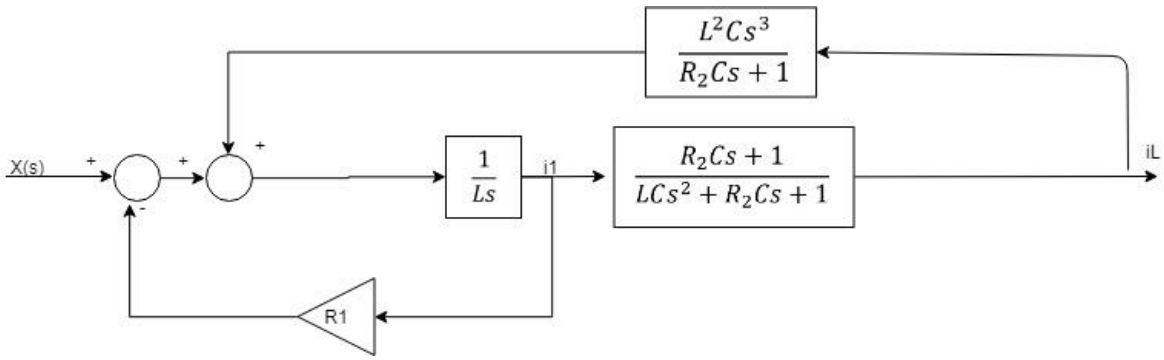
2)



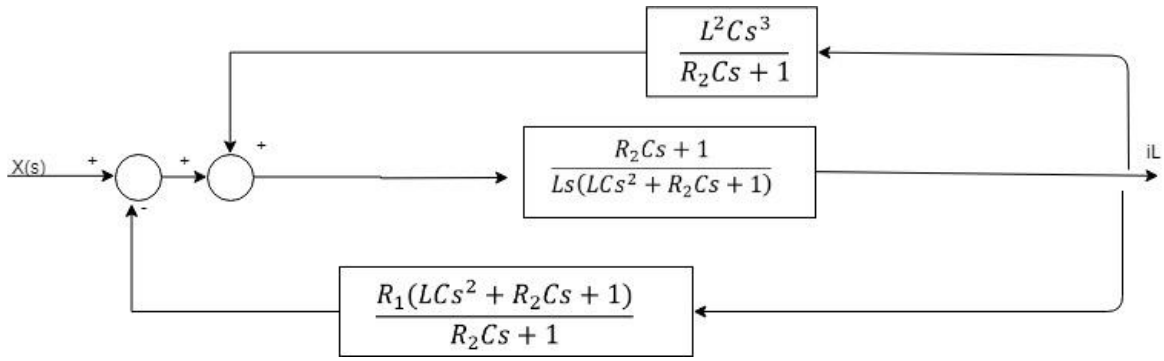
3)



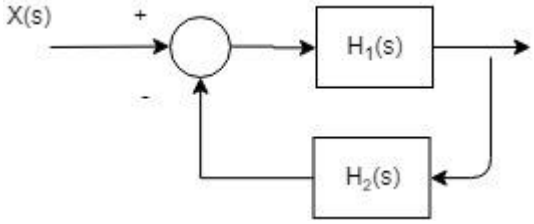
4)



5)



6)



De este modo la función de transferencia:

$$H_1(s) = \frac{R_2Cs + 1}{R_2LCs^2 + Ls}$$

$$H_2(s) = \frac{R_1(LCs^2 + R_2Cs + 1)}{R_2Cs + 1}$$

$$\boxed{\boldsymbol{H(s) = \frac{I_L(s)}{X(s)} = \frac{R_2Cs + 1}{s^2LC(R_2 + R_1) + s(R_1R_2C + L) + R_1}}}$$