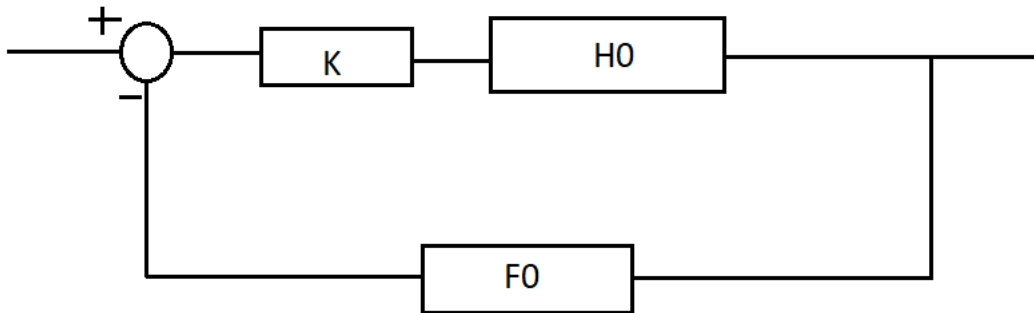


Valor de K para que el sistema sea estable



Función de transferencia

$$\frac{K \cdot H0}{1 + K \cdot H0 \cdot F0} = \frac{\frac{K}{S^2 + 2S}}{1 + \frac{K}{S^2 + 2S} \cdot \frac{1}{S}} = \frac{K \cdot S}{S^3 + 2S^2 + K}$$

Para obtener K usamos el criterio de Ruoth

$$s^3 + 2s^2 + 0s + k$$

s^3	1	0
s^2	2	k
s^1	b1	b2
s^0	c1	

$$b1 = \frac{-1}{2}k \quad b2 = 0$$

$$c1 = k \quad \frac{-1}{2}k > 0 \quad k < 0$$

$$Z = 0$$

$$P = -3,6258 + 4,9937i$$

$$-3,6258 - 4,9937i$$

$$5,2517$$