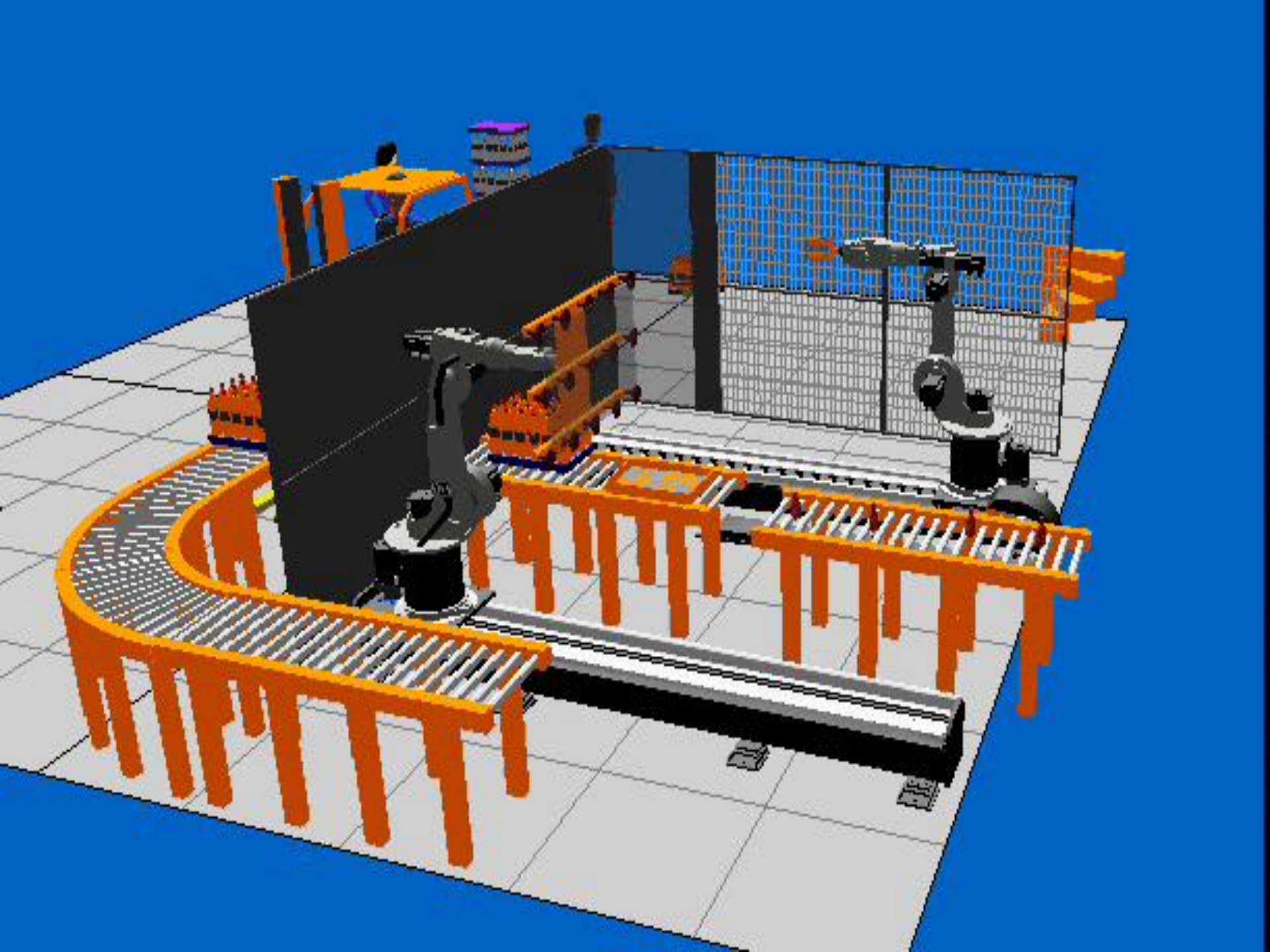
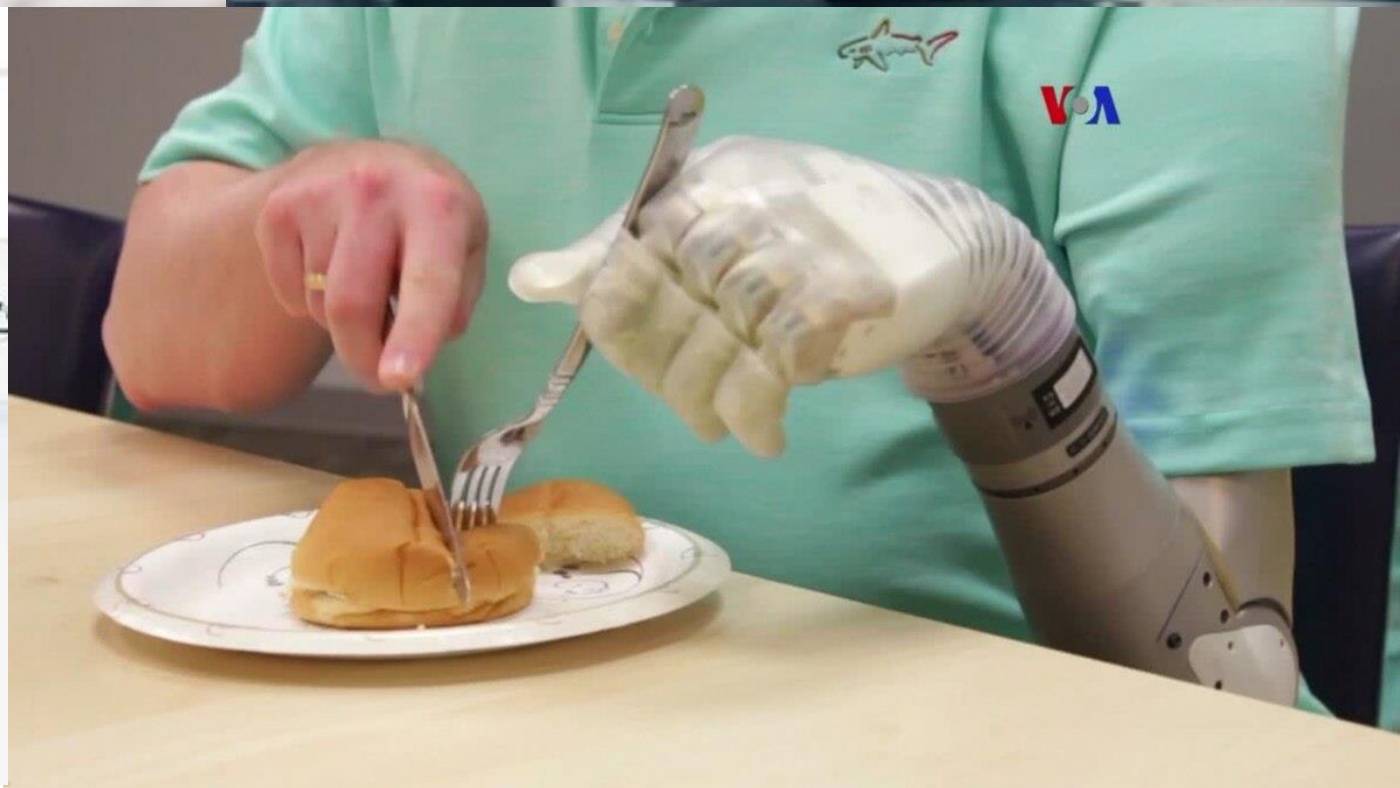
# Planeación de trayectoria

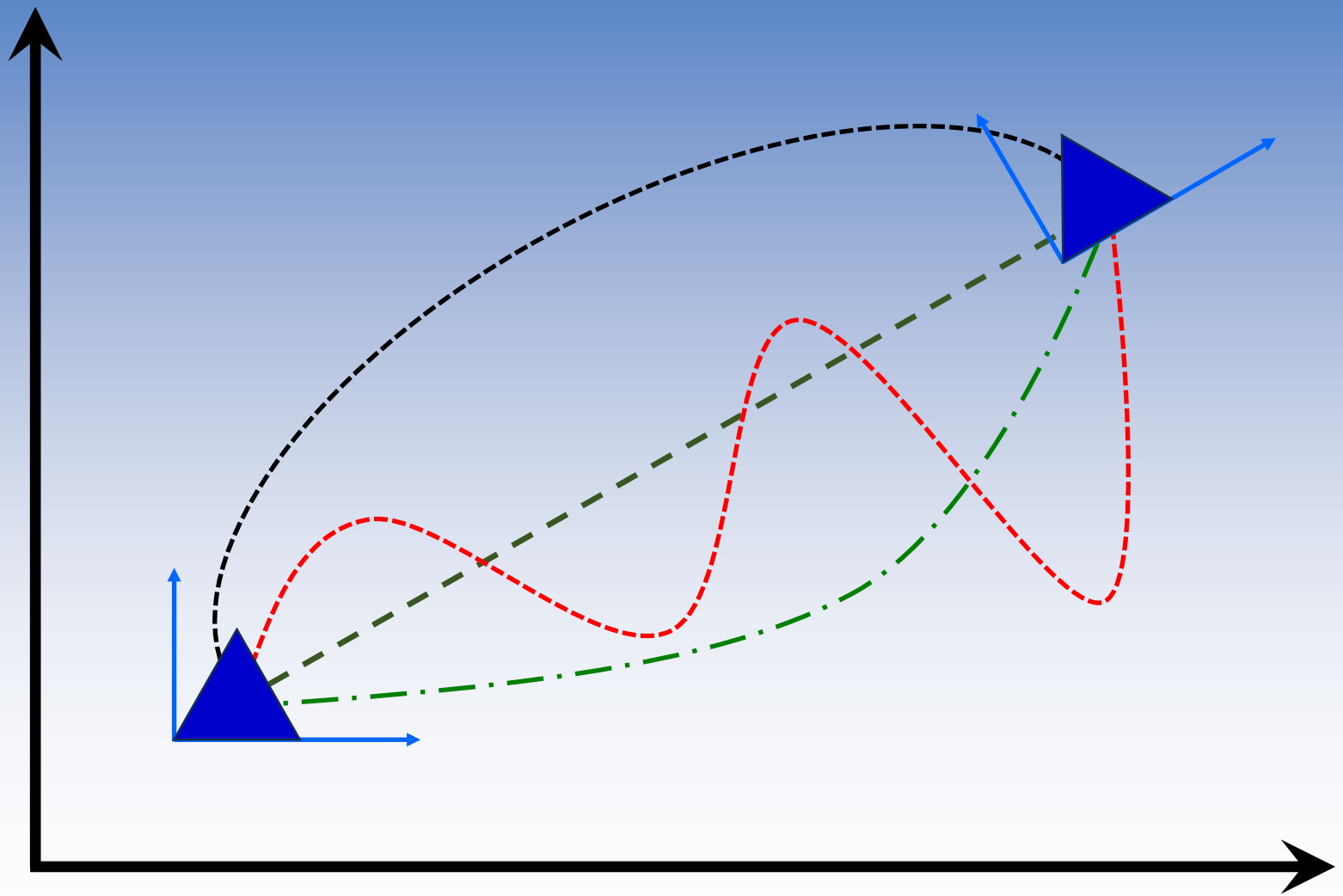
Emilio Vargas, Prof.-Dr.

- ✓ Comprensión.
- ✓ Evaluación.
- ✓ Control.



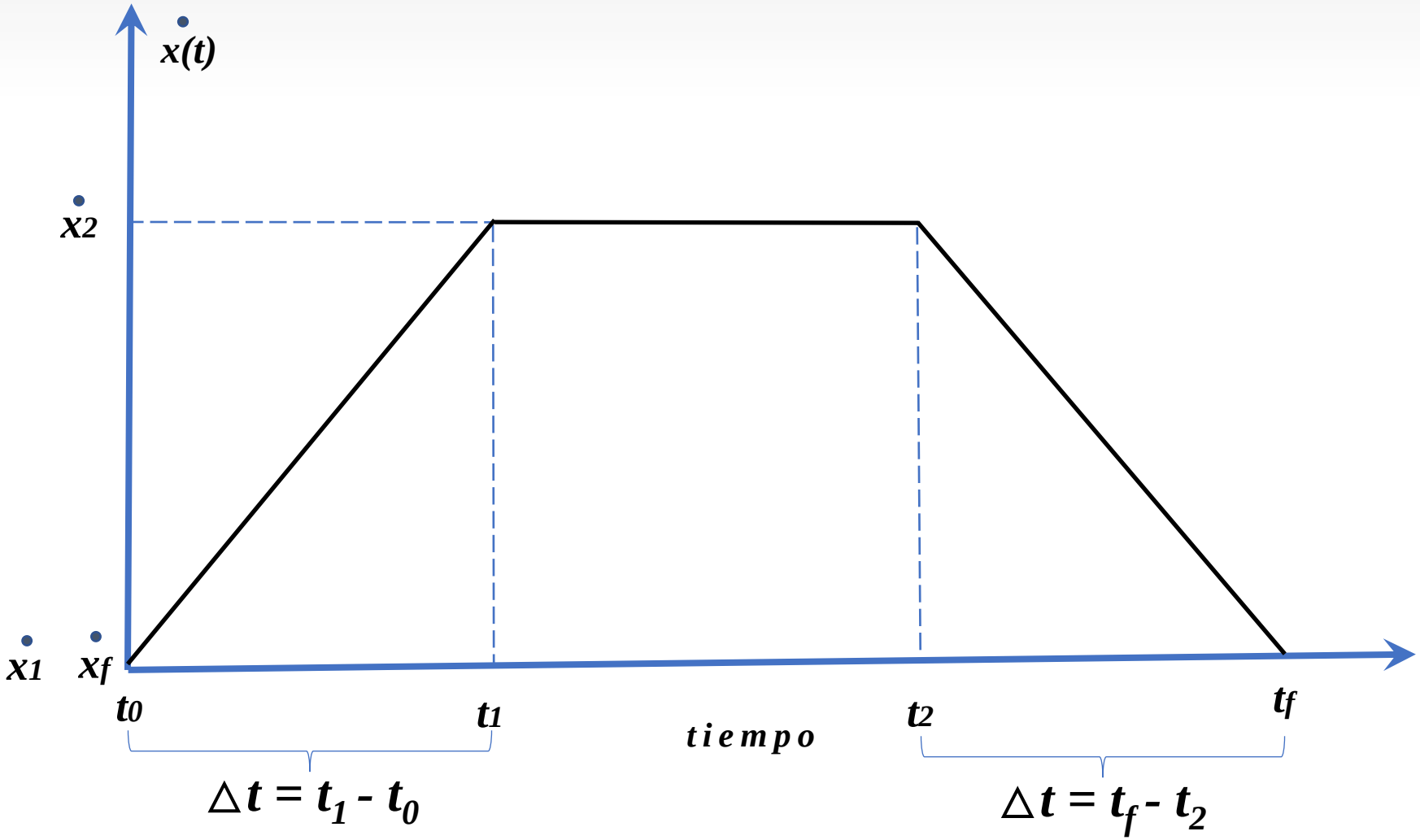

VOA

# Diseñar la acción de actuadores

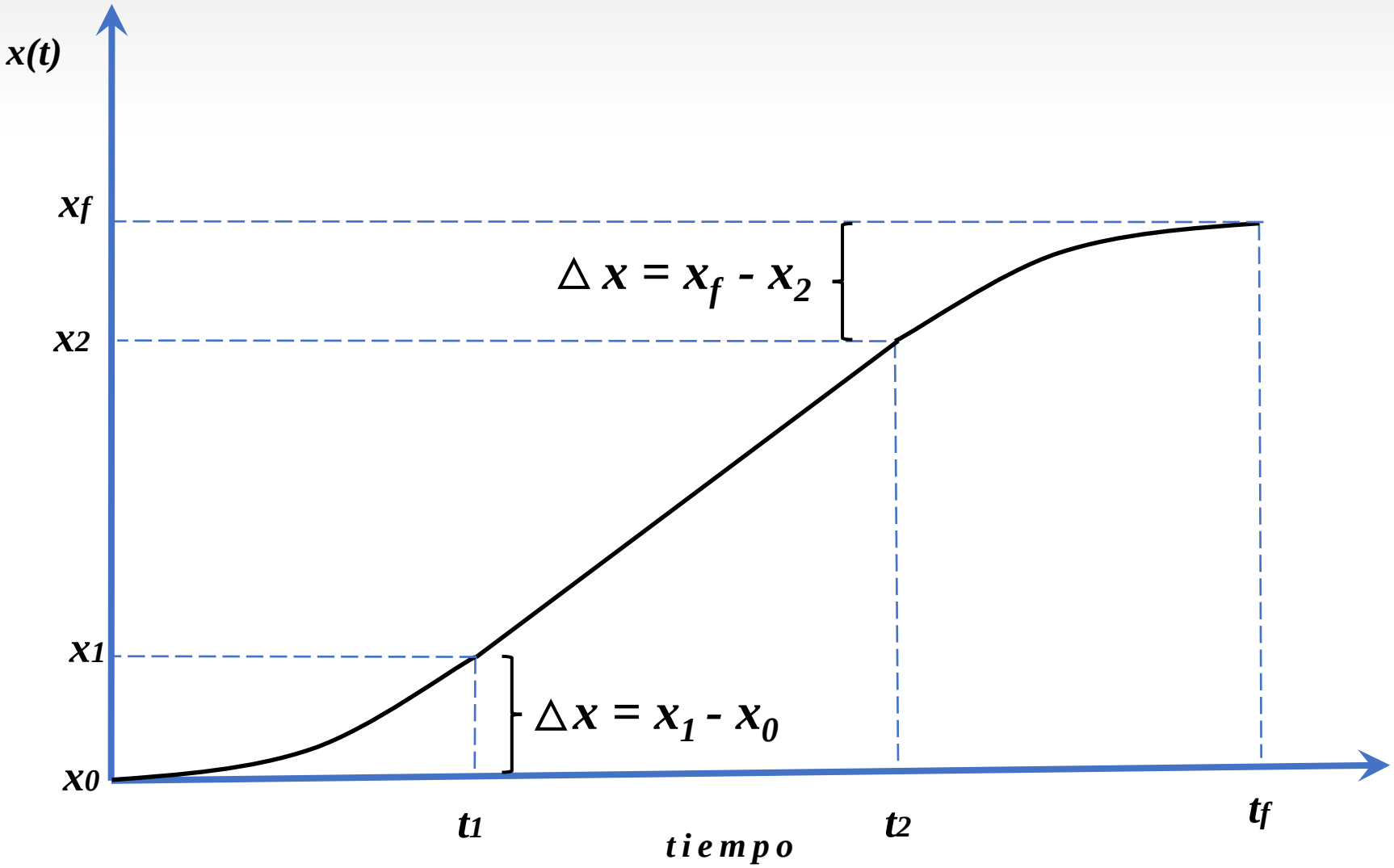



*Sistema de referencia inercial*

# Perfil trapezoidal en velocidad



# Posición vs Tiempo

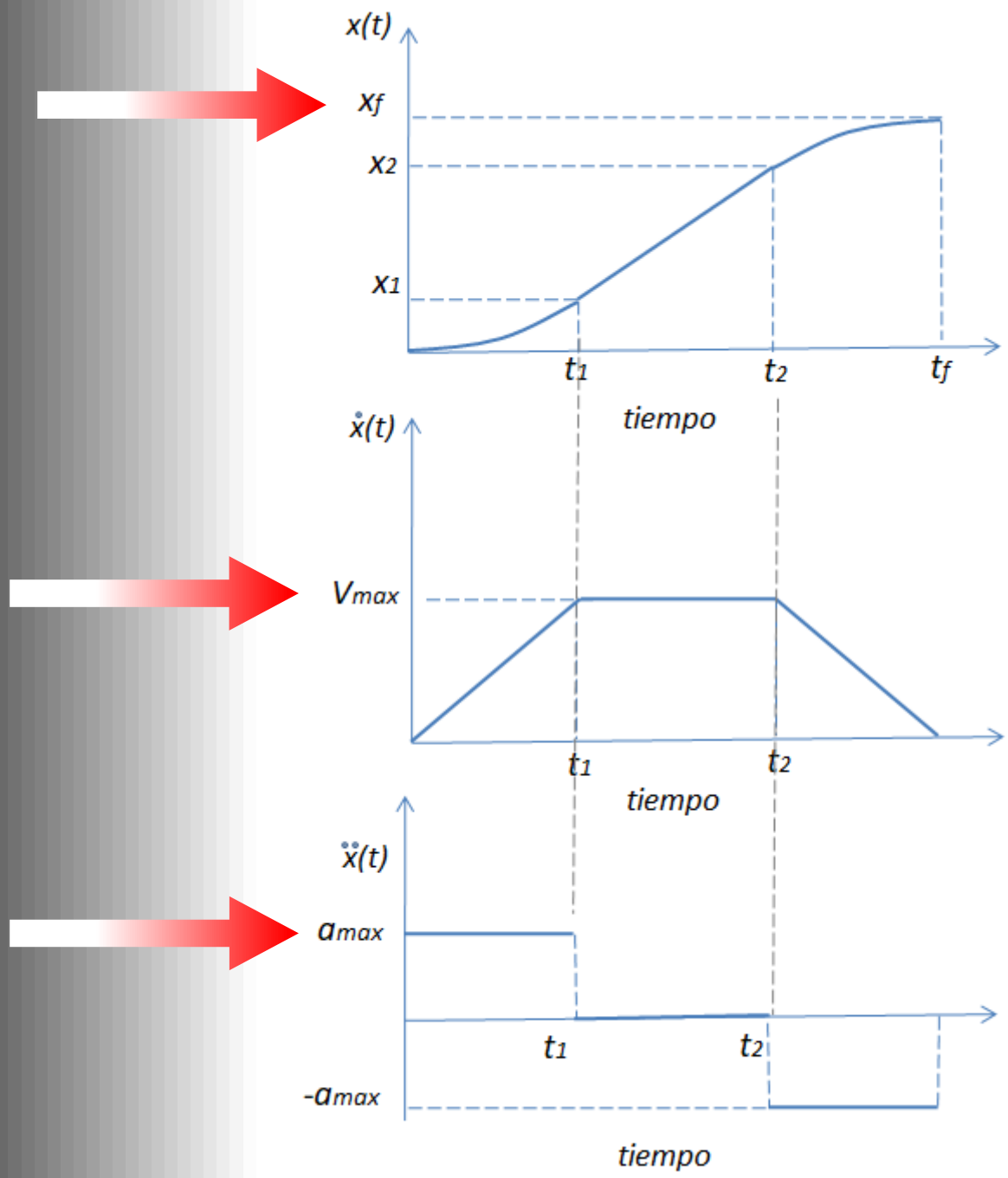


Valores

**definidos**

por

**diseño**

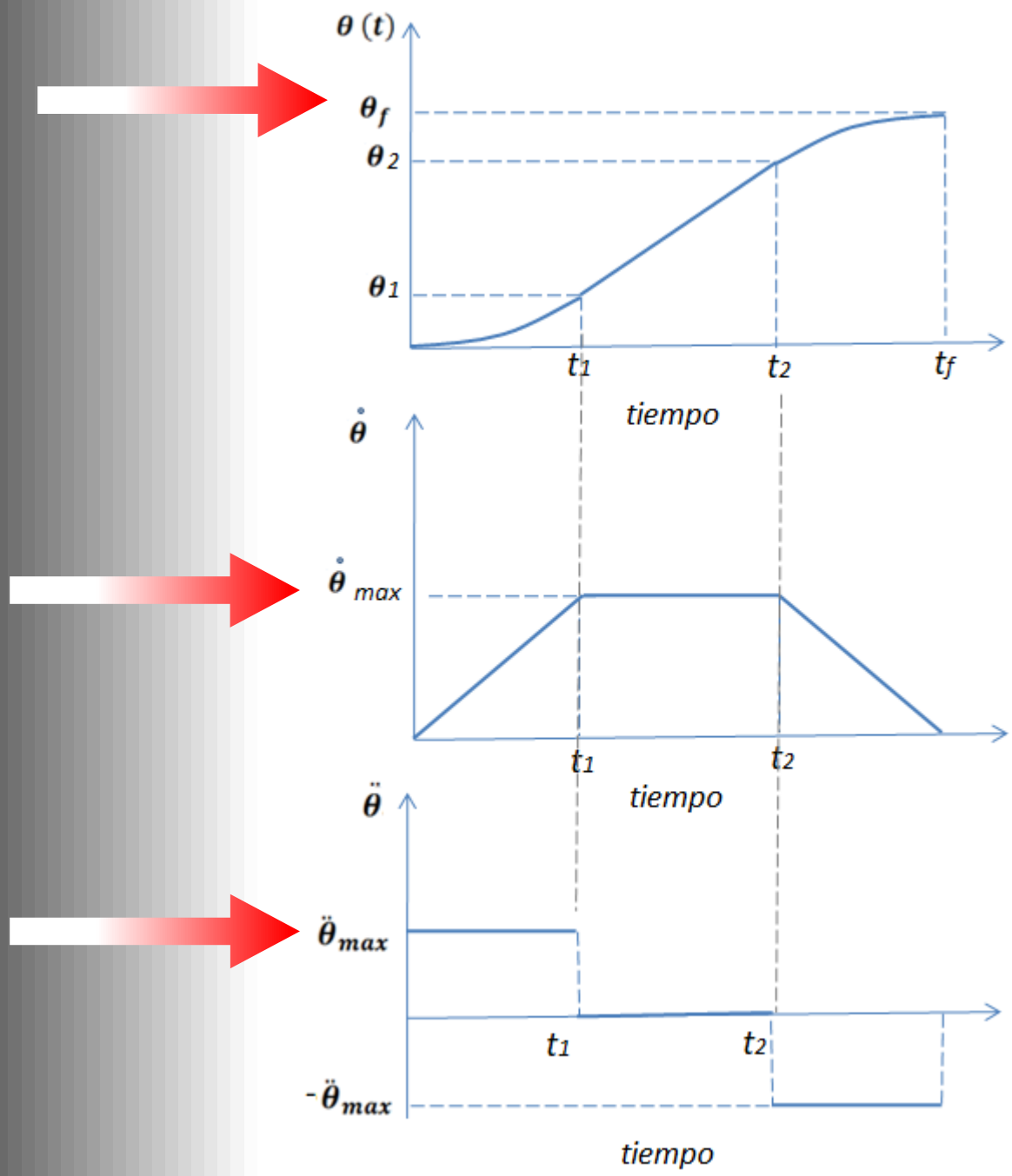


Valores

**definidos**

por

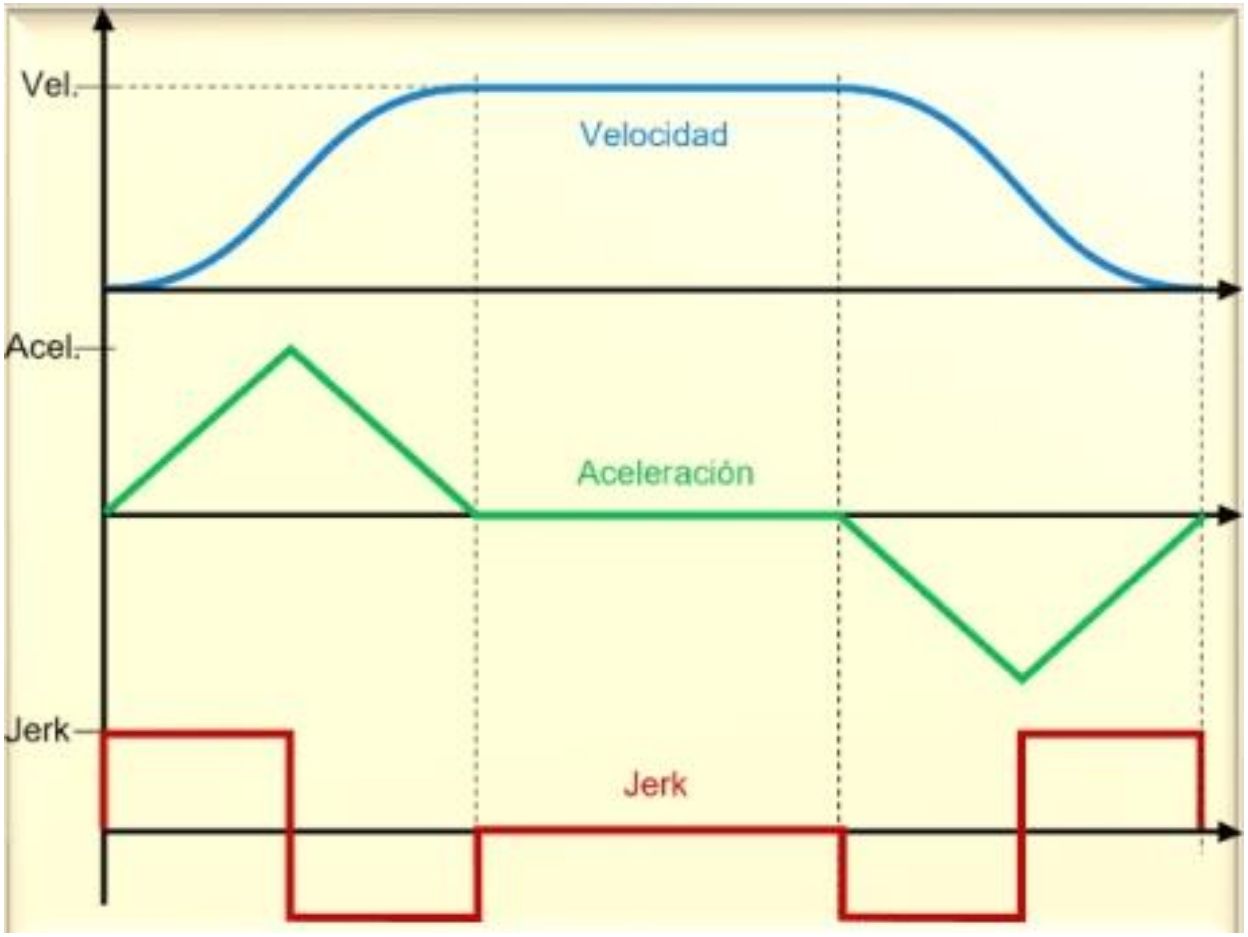
**diseño**



# Prótesis “Inteligentes”

# Destreza en la Manipulación

# Motion Control

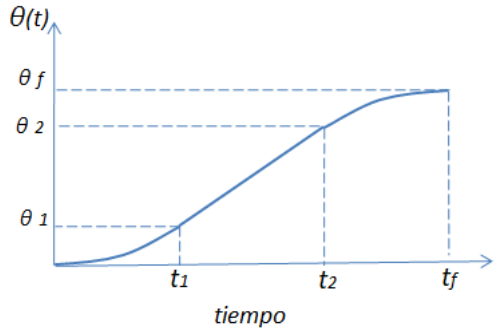



https://www.infoplc.net/blogs-automatizacion/item/111289-motion-control-tip-calculo-parametros-posicionado

# Tarea

**a) Deducir $\theta(t)$.**

**b) Obtener $t_1$, $t_2$ y $t_f$ .**




$$\theta(t) = \begin{cases} \dfrac{\ddot{\theta}_{max}}{2} t^2 & 0 < t \leq t_1 \\ -\dfrac{\dot{\theta}_{max}^{\,2}}{2\,\ddot{\theta}_{max}} + \dot{\theta}_{max}\, t & t_1 < t \leq t_2 \\ \left(-\dfrac{\dot{\theta}_{max}^{\,2}}{2\,\ddot{\theta}_{max}} - \dfrac{\theta_f^{\,2}\ddot{\theta}_{max}}{2\,\dot{\theta}_{max}^{2}}\right) + \left(\dfrac{\theta_f\,\ddot{\theta}_{max}}{\dot{\theta}_{max}} + \dot{\theta}_{max}\right) t - \dfrac{\ddot{\theta}_{max}}{2} t^2 & t_2 < t \leq t_f \end{cases}$$

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# *"Ingeniería para crear beneficios en la sociedad"*


***Dr. Emilio Vargas***

www.mecatronica.net/emilio