VI JORNADAS sobre Tecnologías y Soluciones para la Automatización Industrial
Vigo, 3 al 7 de noviembre de 2014
Universidade de Vigo | Escola de Enxeñaría Industrial

5ª SESIÓN

Rockwell Automation

MIÉRCOLES 5, 16:00-17:10

Nuevas tendencias en automatización de maquinaria

Ponente:

- **D. Sergio López**
  (Ingeniero comercial Arquitectura Integrada, ROCKWELL AUTOMATION)

Un tipo con suerte

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Información general Rockwell Automation

Rockwell Automation

Líder global proveedor de soluciones automatización industrial y sistemas de información

- Ventas anuales: 7.000 millones US$
- Sede: Milwaukee (Wisconsin) EE.UU
- Símbolo bursátil: ROK
- Oficinas: + 450 en más de 80 países
- Empleados: Aprox. 21.000

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Oferta Rockwell Automation

Rockwell Automation

Componentes y Control Motores Inteligente

Arquitectura Integrada y Plataformas Información

Servicios y Soporte

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Industrias

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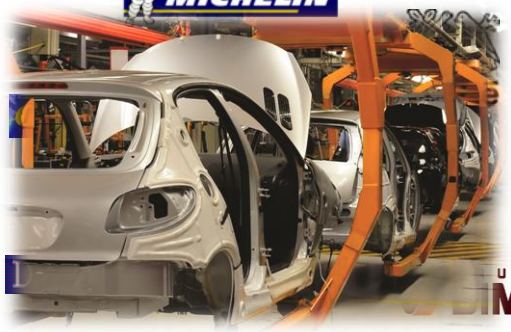
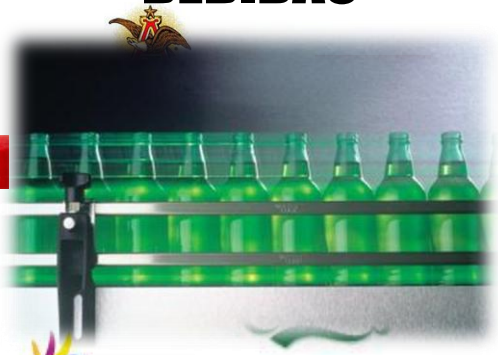
AUTOMÓVIL

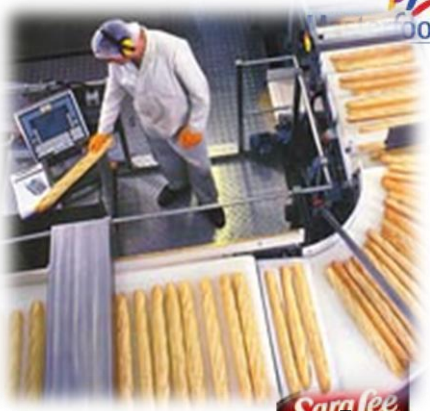


BEBIDAS

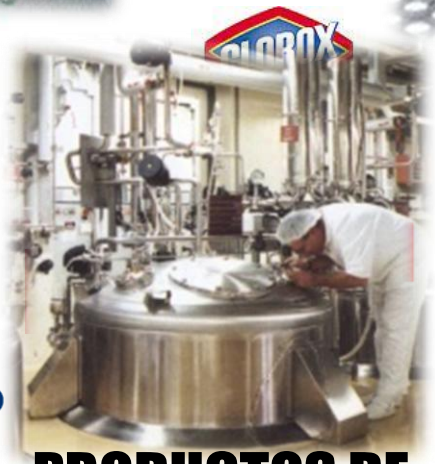


INDUSTRIA FARMACÉUTICA

ALIMENTACIÓN



PRODUCTOS DE CONSUMO



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Y lo más importante

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TRANSALP
HONDA

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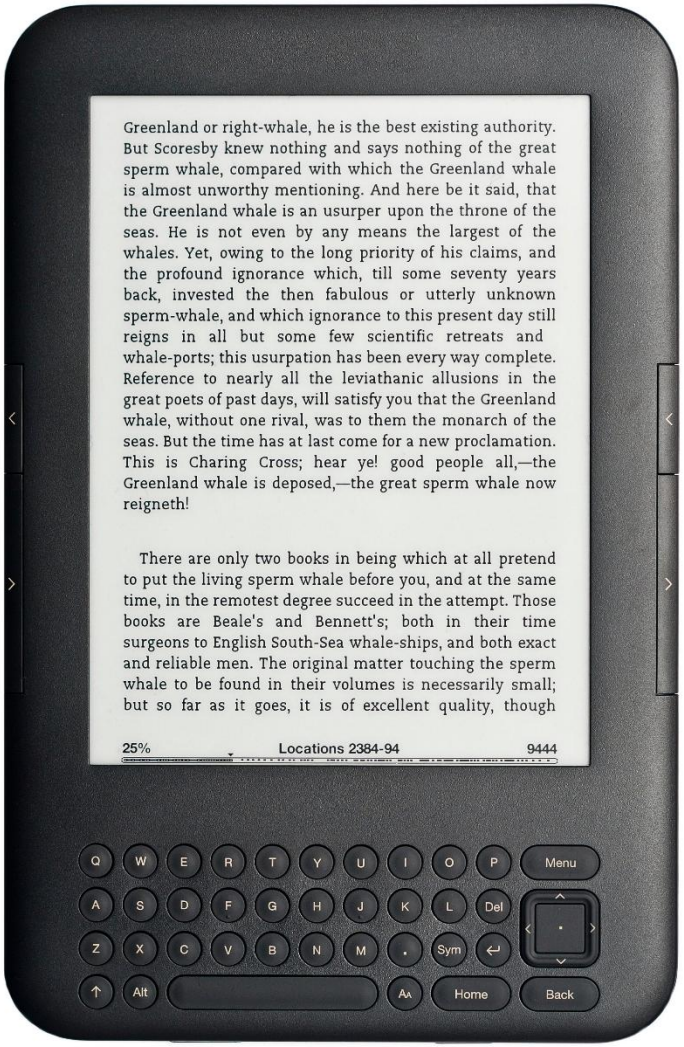

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El principito

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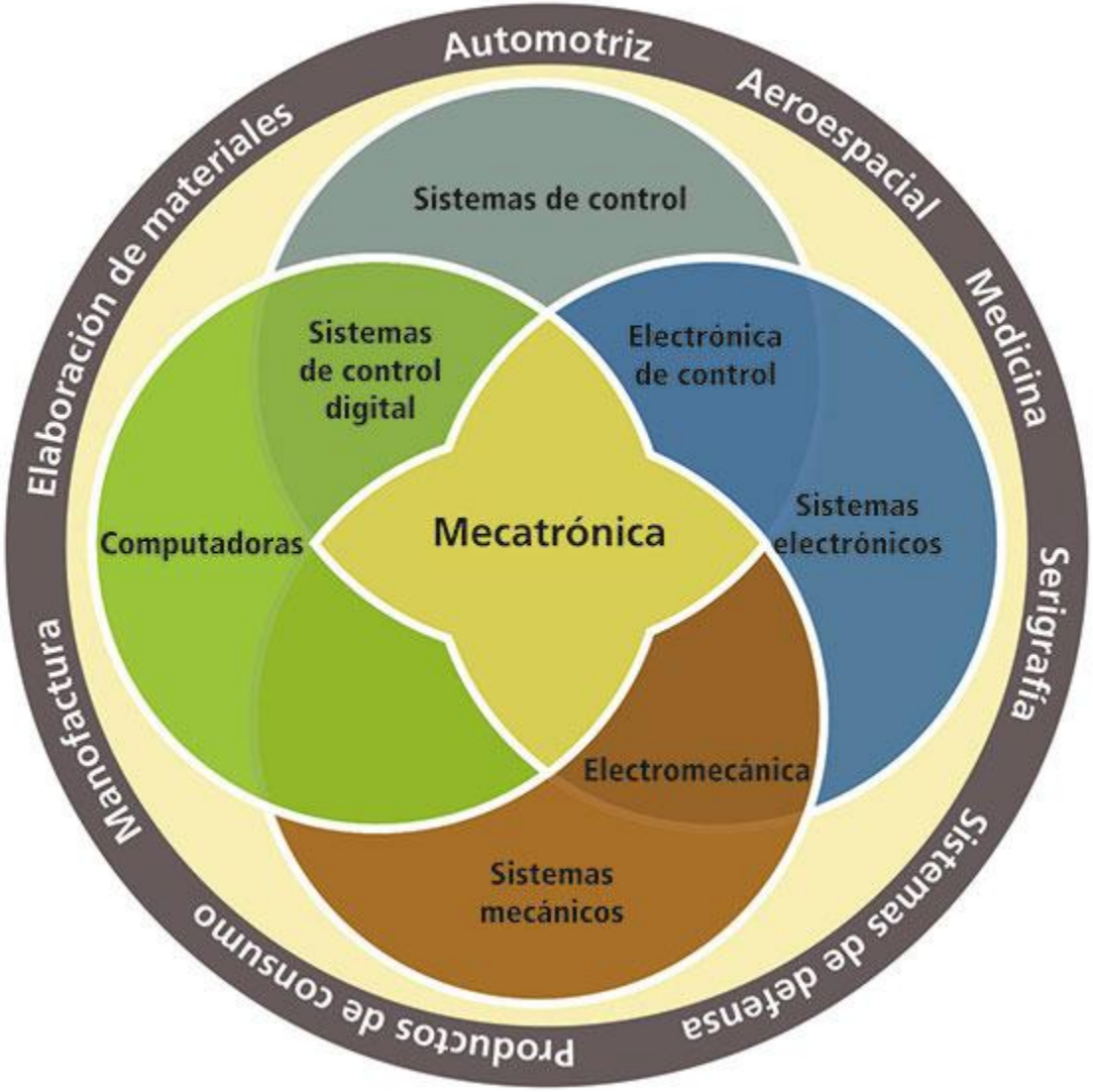

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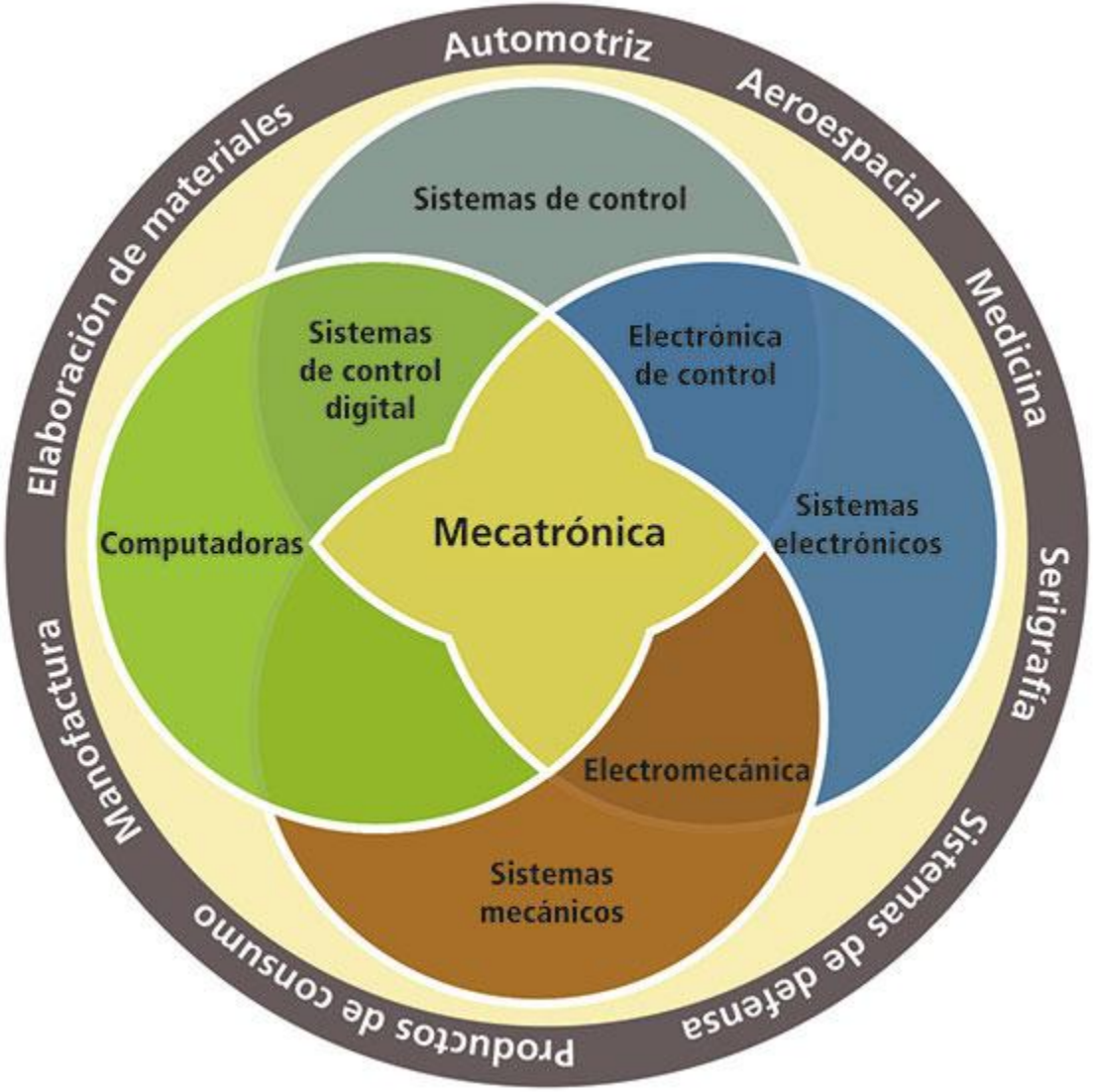
Product

Mecatrónica



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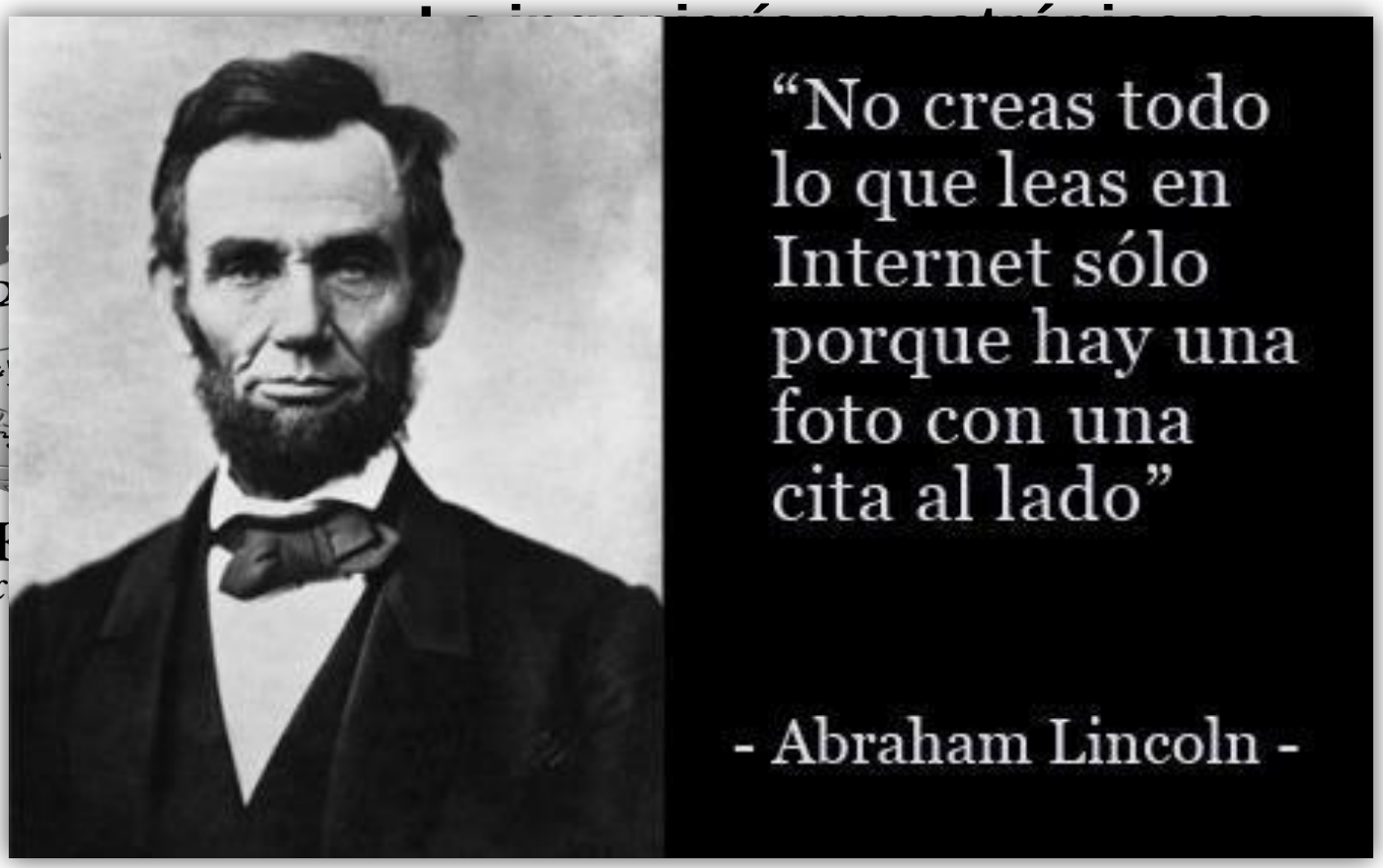

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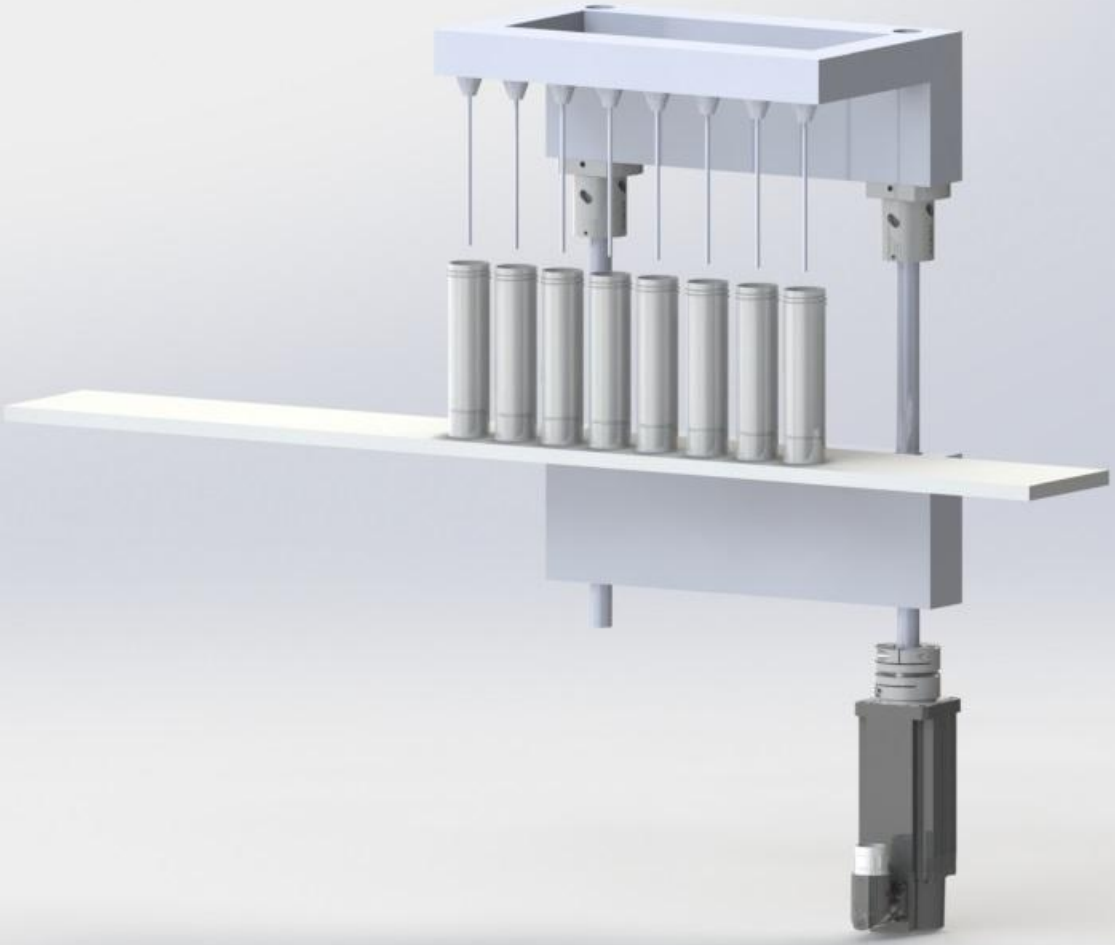
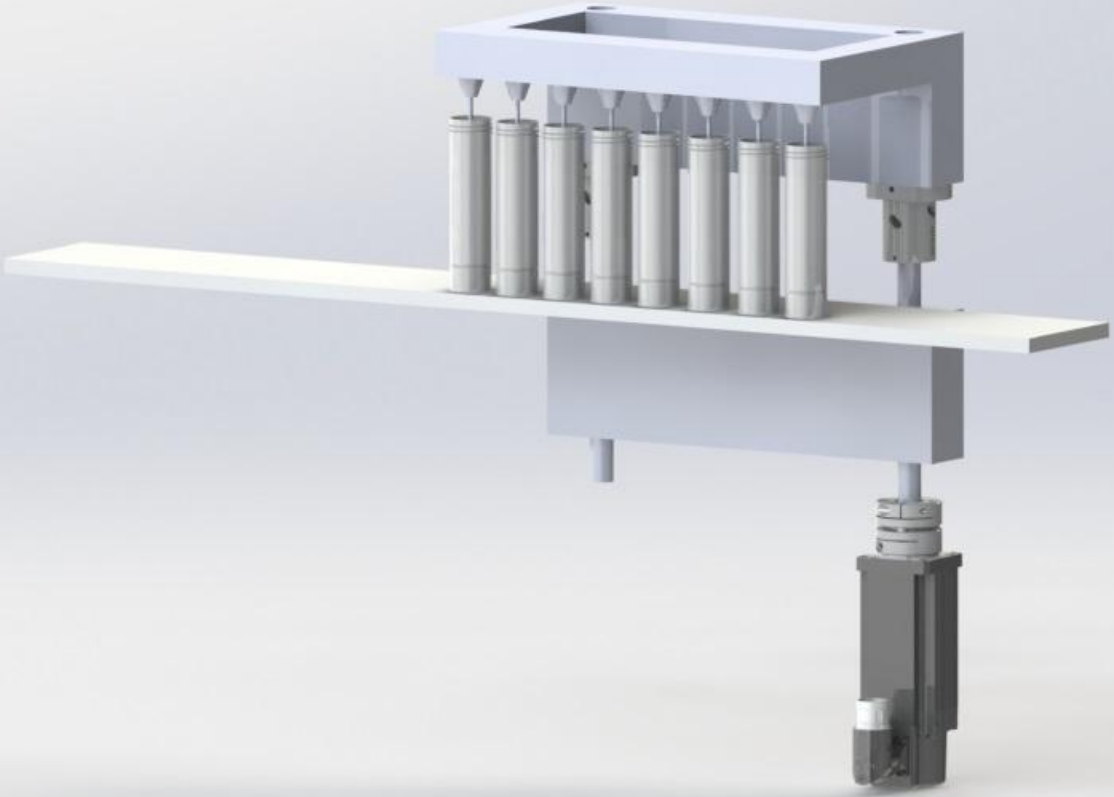
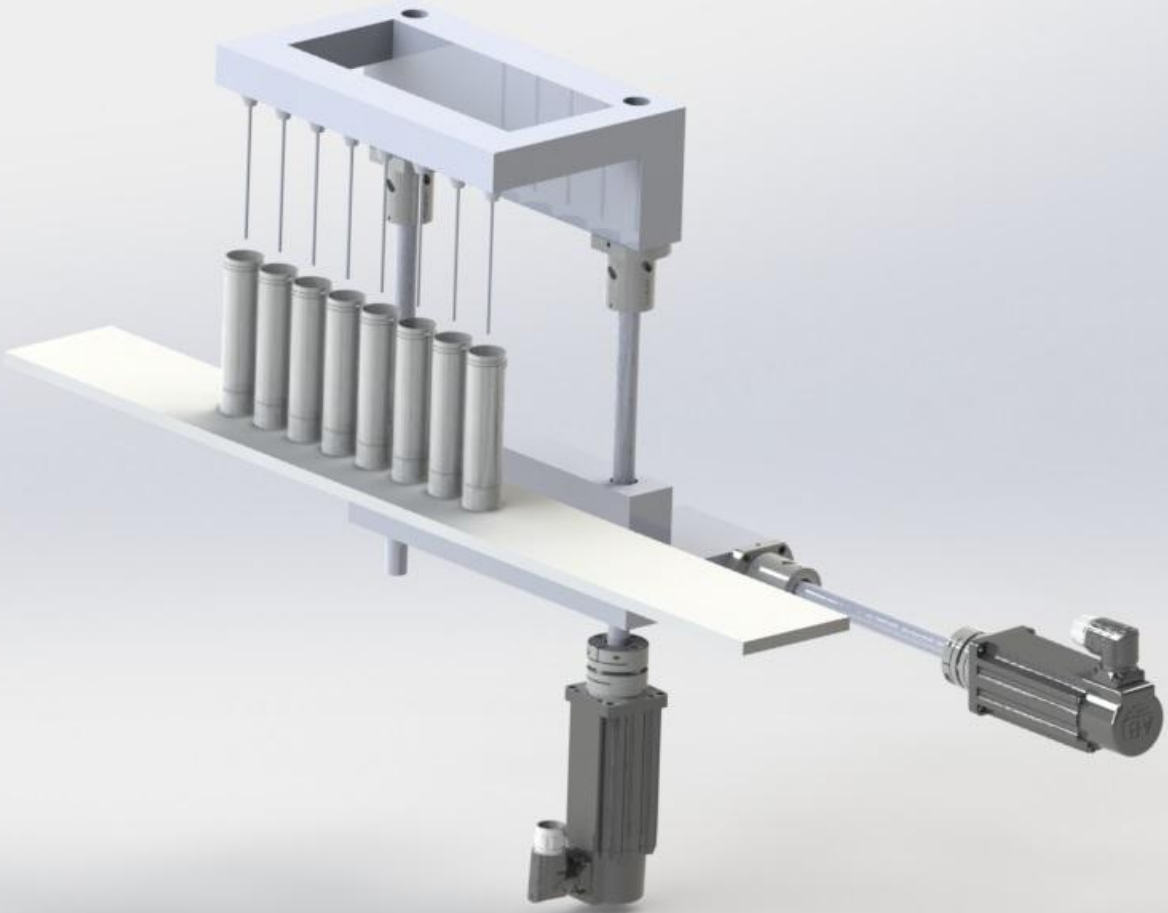
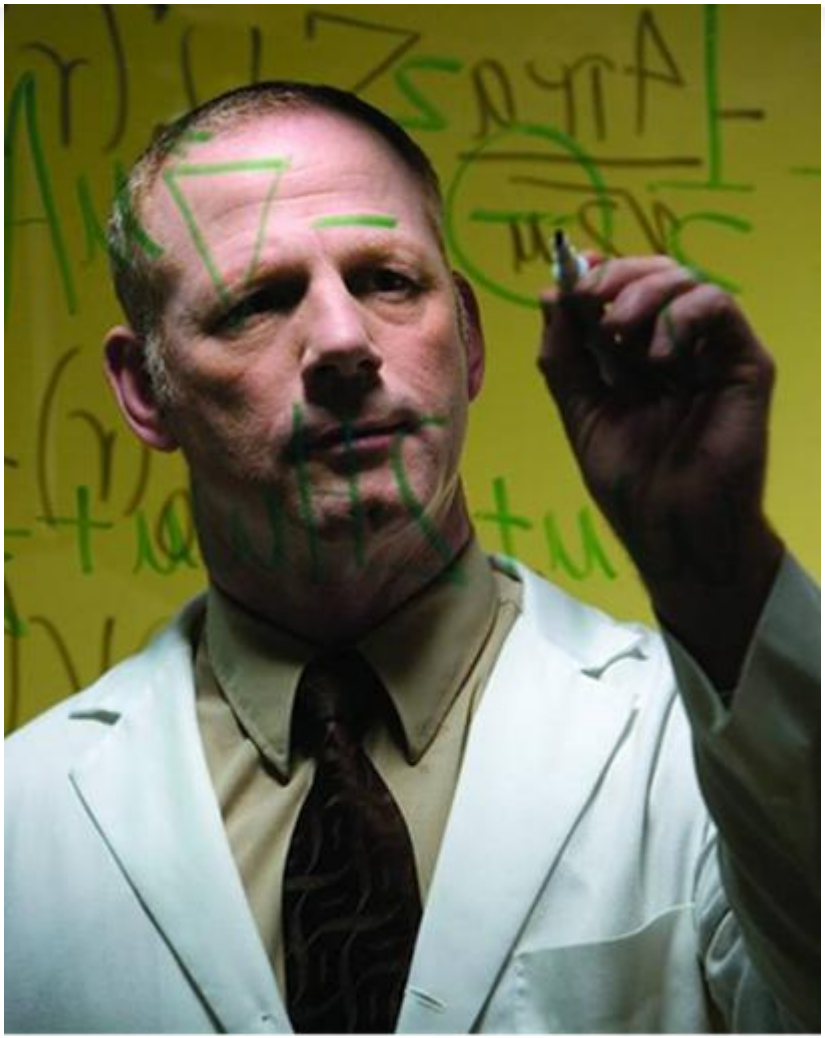
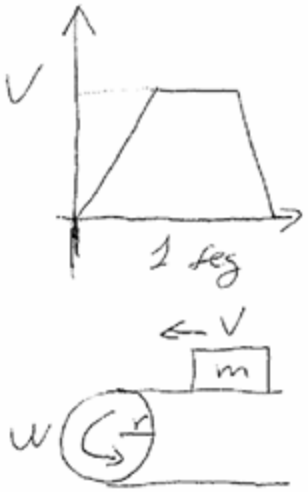






Podemos hacer cálculos…





$$V = U + a \cdot t$$

$$v^2 = U^2 + 2 \cdot a \cdot d$$

$$d = U \cdot t + \frac{1}{2} a t^2$$

$$F = M \cdot a$$

$$P = M_L \cdot w$$

$$J = m \cdot r^2$$

$$J = m (V/w)^2$$

$$I = \frac{1}{Kt} (M_L + M_f + w \cdot D)$$

$$V = \frac{n}{1000} \cdot K_E + I \cdot R_T$$

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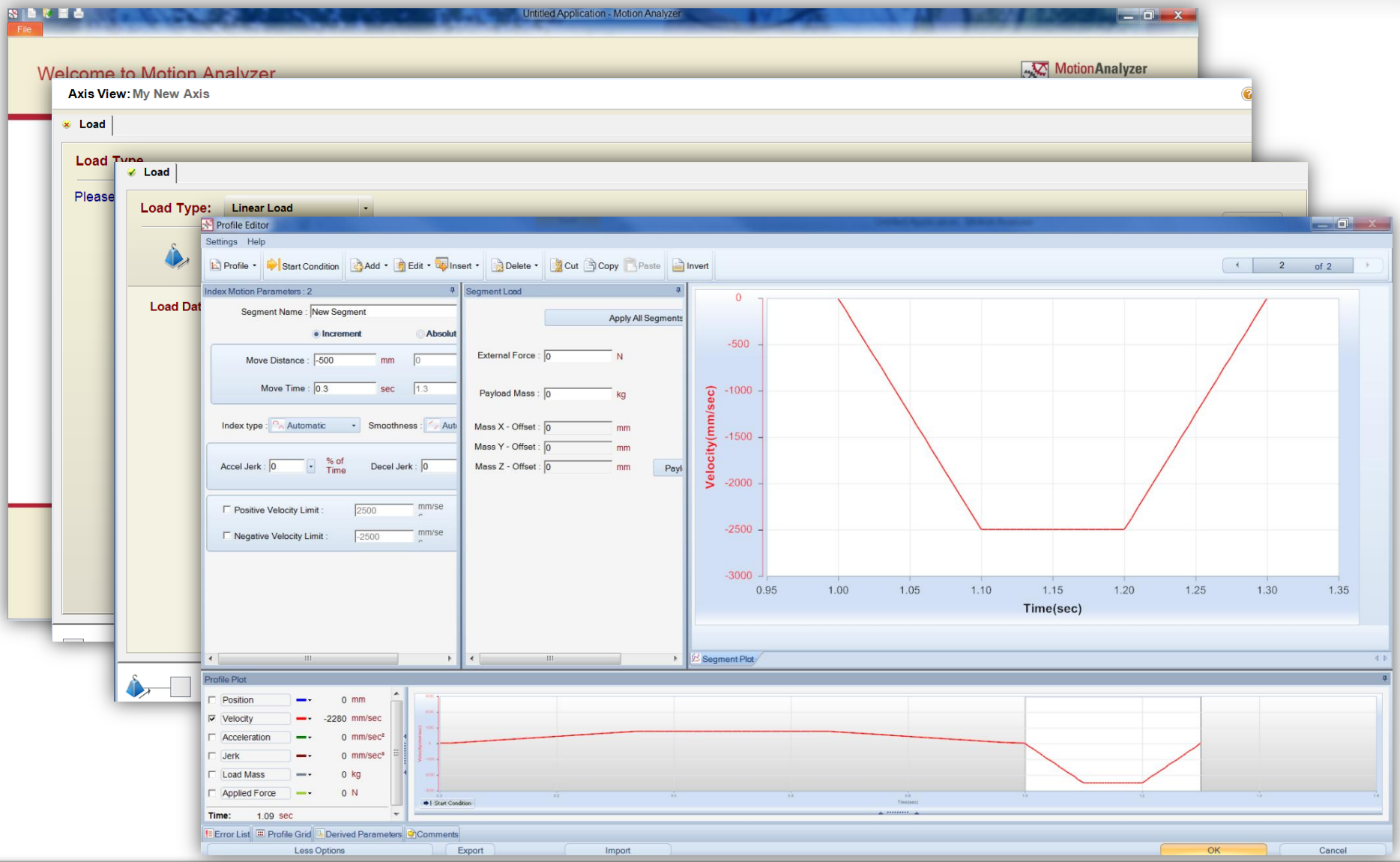
Motion Analyzer



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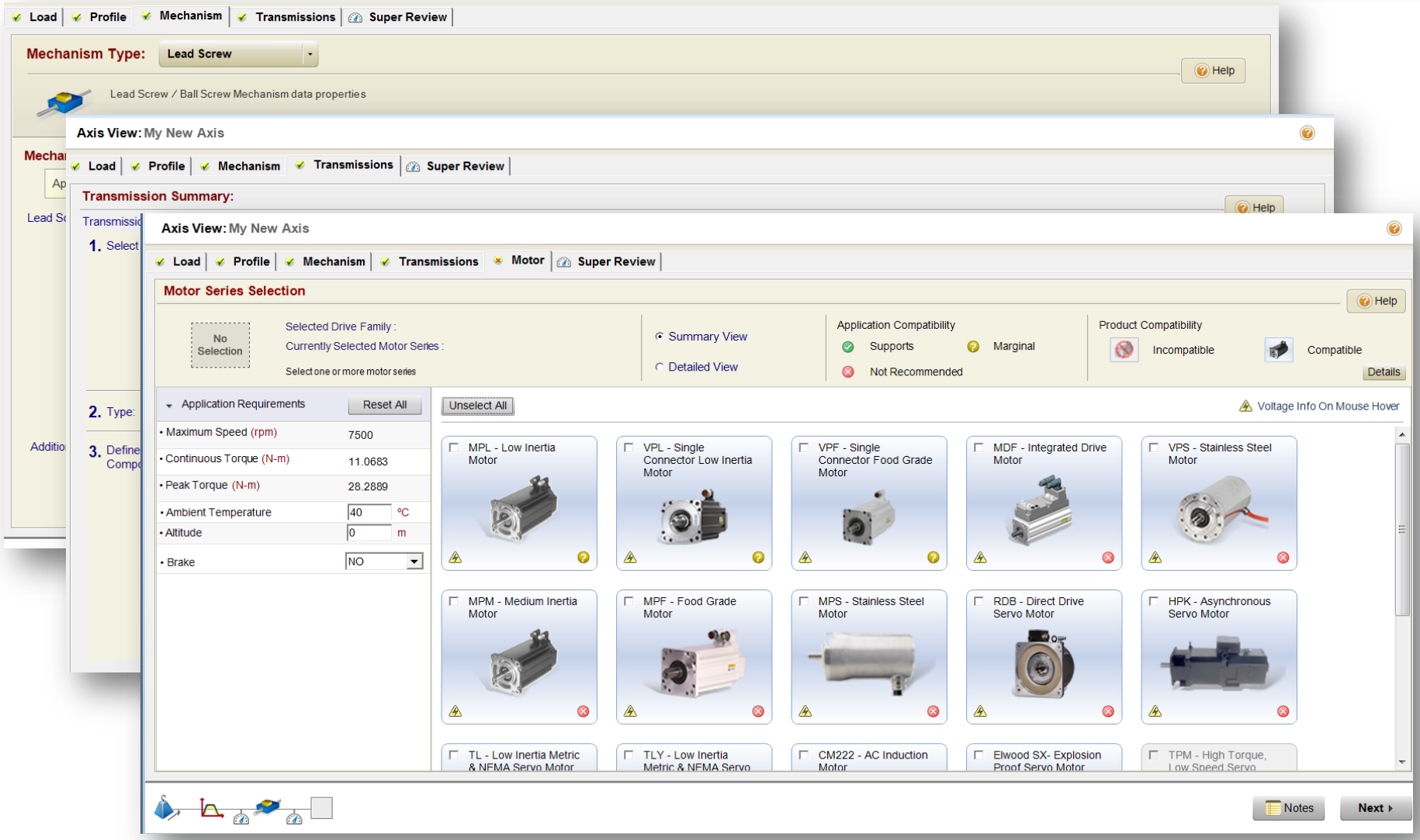
Motion Analyzer



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Motion Analyzer

Rockwell Automation

Axis View: My New Axis

Load | Profile | Mechanism | Transmissions | Motor | Drive | Selection | Solution | Axis Stop | Configure Axis BOM | Super Review

Component Details

Summary | Motor | Drive

Motor < VPL-B1002M >

Motor Capacity (Temp)	12%
Peak Speed	43%
Peak Torque	26%
Brake Rating	
Inertia Ratio	19.43 : 1

Drive < 2198-H008-ERS-460v-3ph-4 >

AC3ph, 400 -10%/+10%

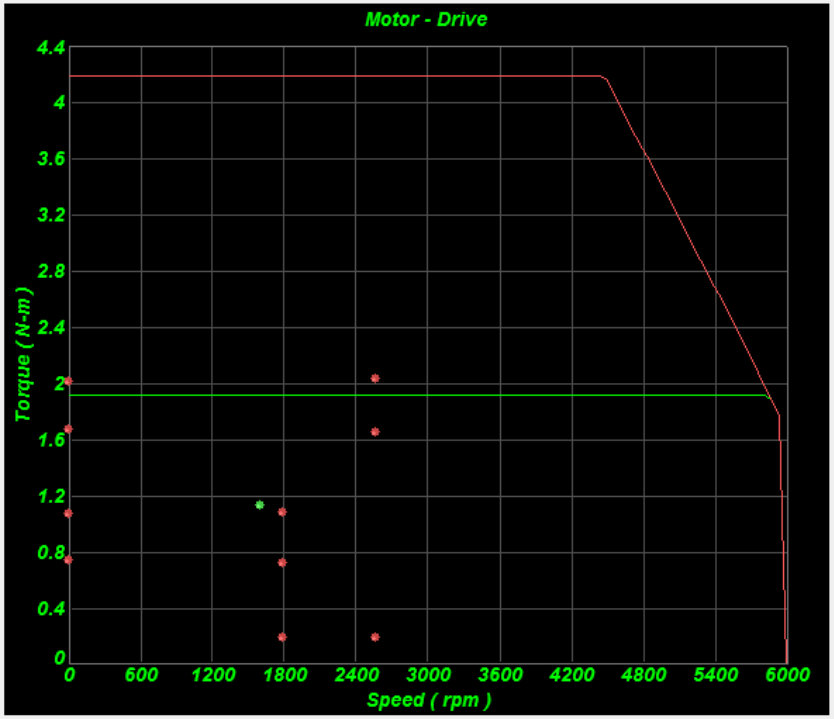
Drive Capacity (Temp)	62%
Average Current	50%
Peak Current	45%
Bus Utilization	47%

Gearbox < << Not Selected >> >

Peak Input Velocity	
RMS Torque	
Peak Torque	
Nominal Speed	

Axis System Performance

Torque - Speed | Power - Speed | Load | Thermal | RBM | Power-Supply



Quadrant | Torque

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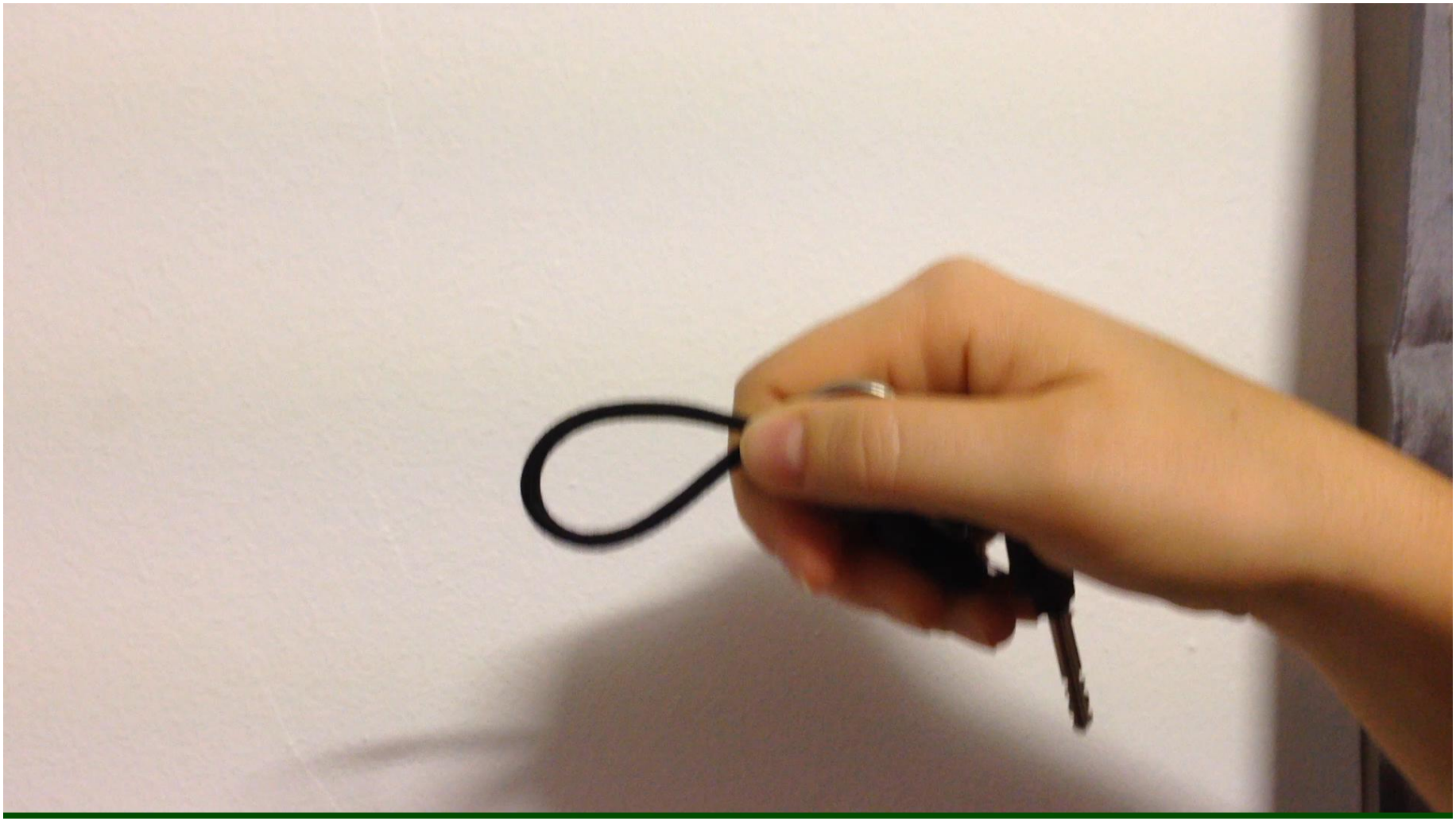
La importancia de la relación de inercias



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La importancia de la relación de inercias

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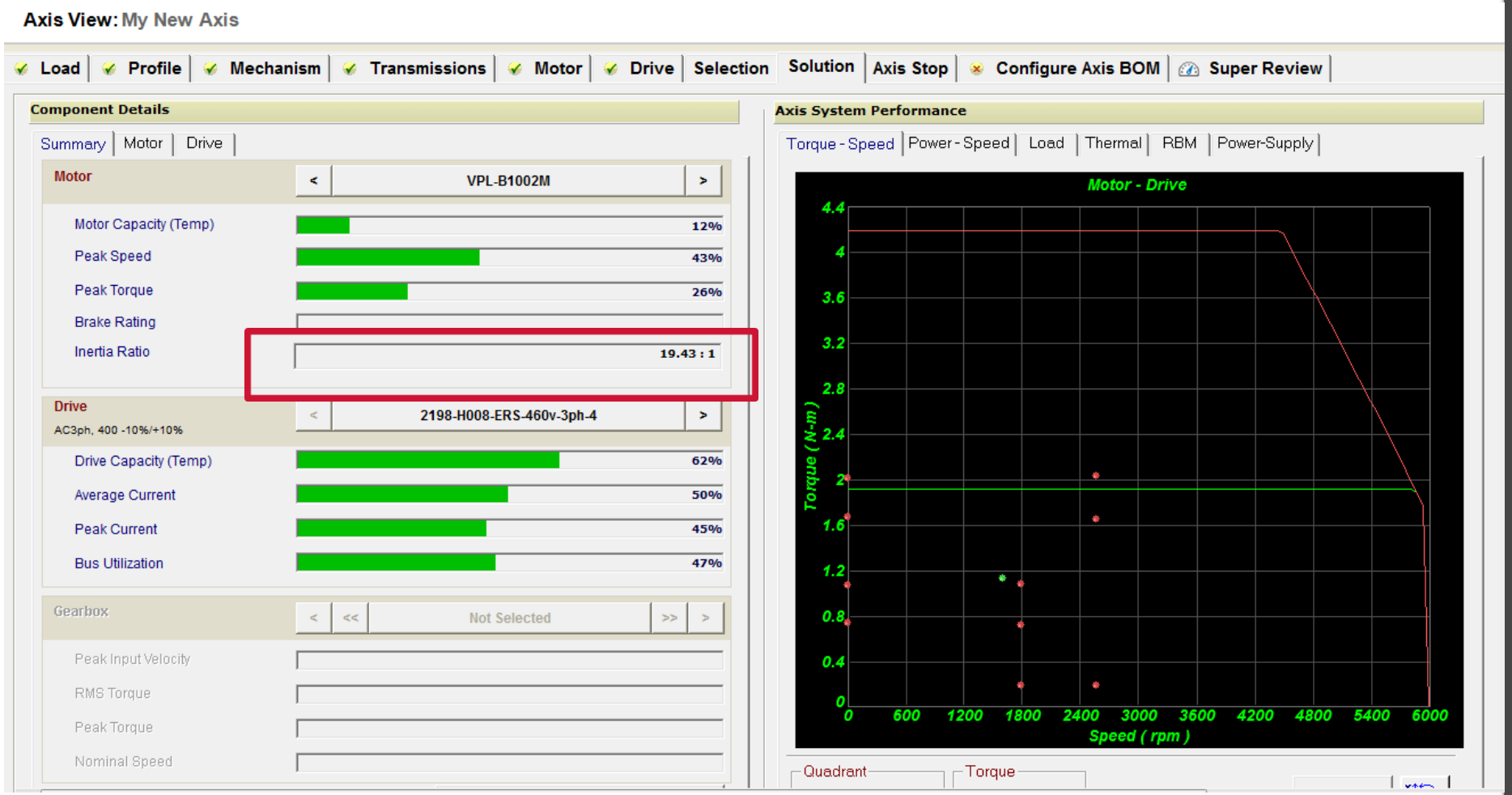
Motion Analyzer



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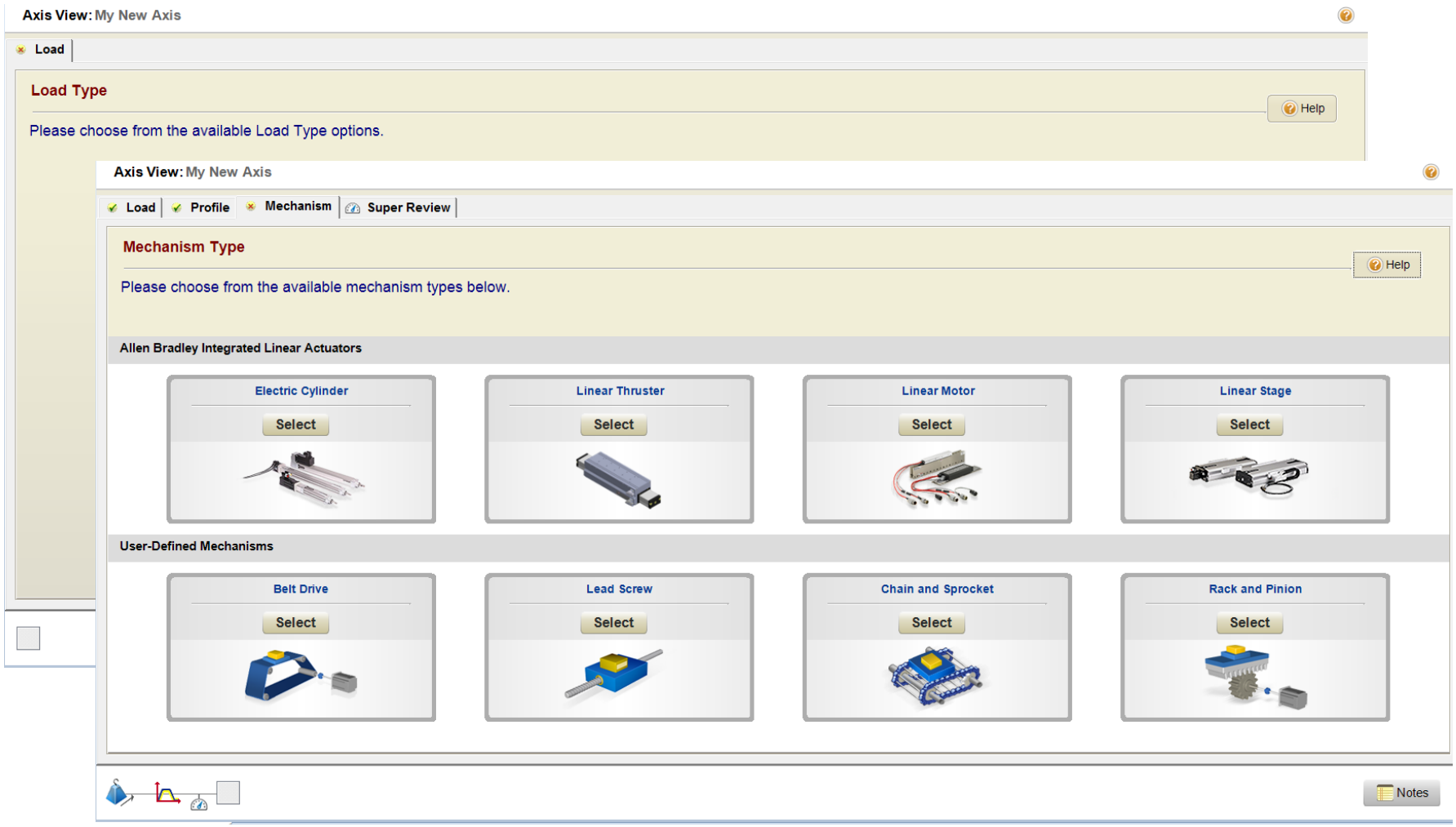
Motion Analyzer



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Mecatrónica

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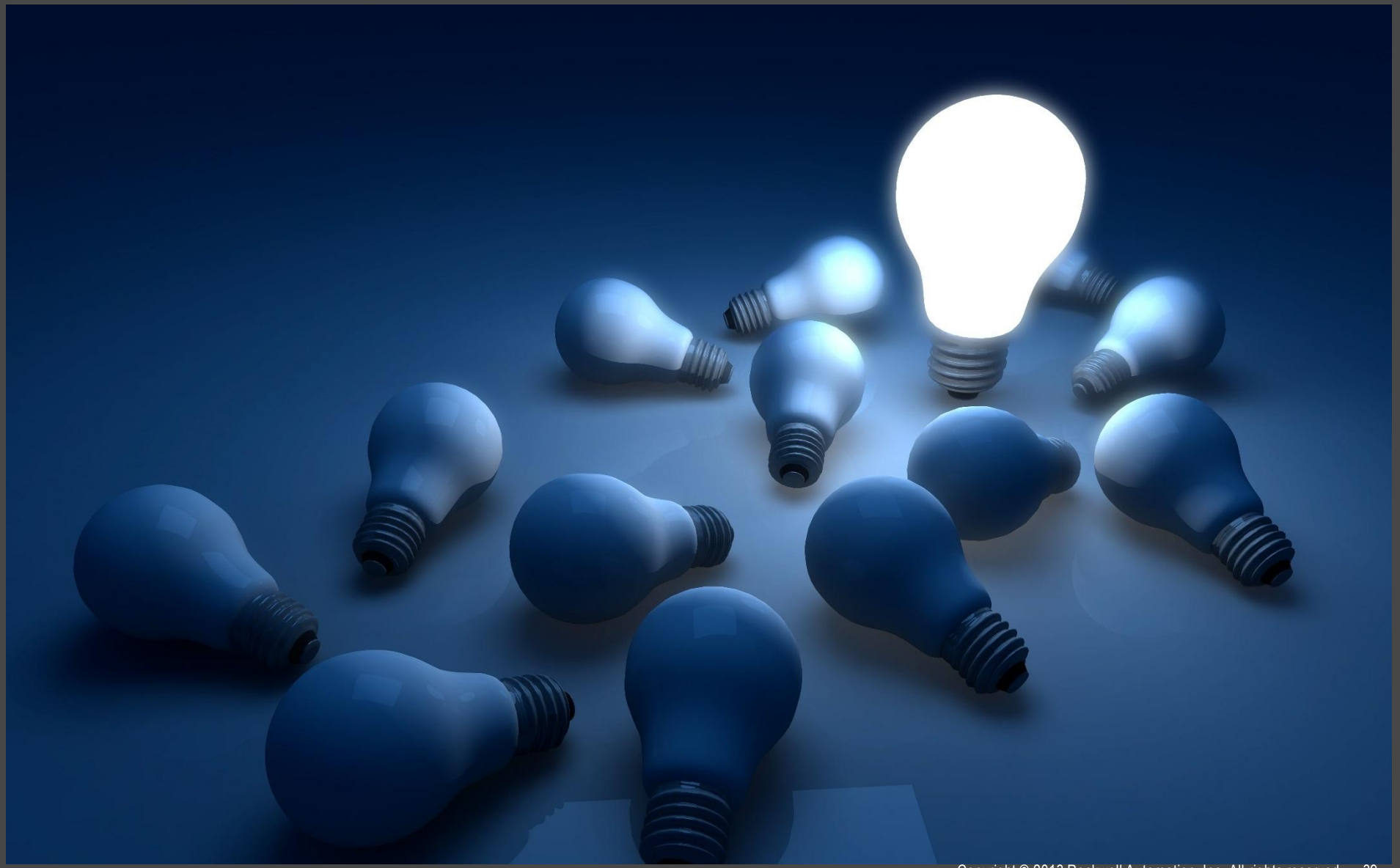

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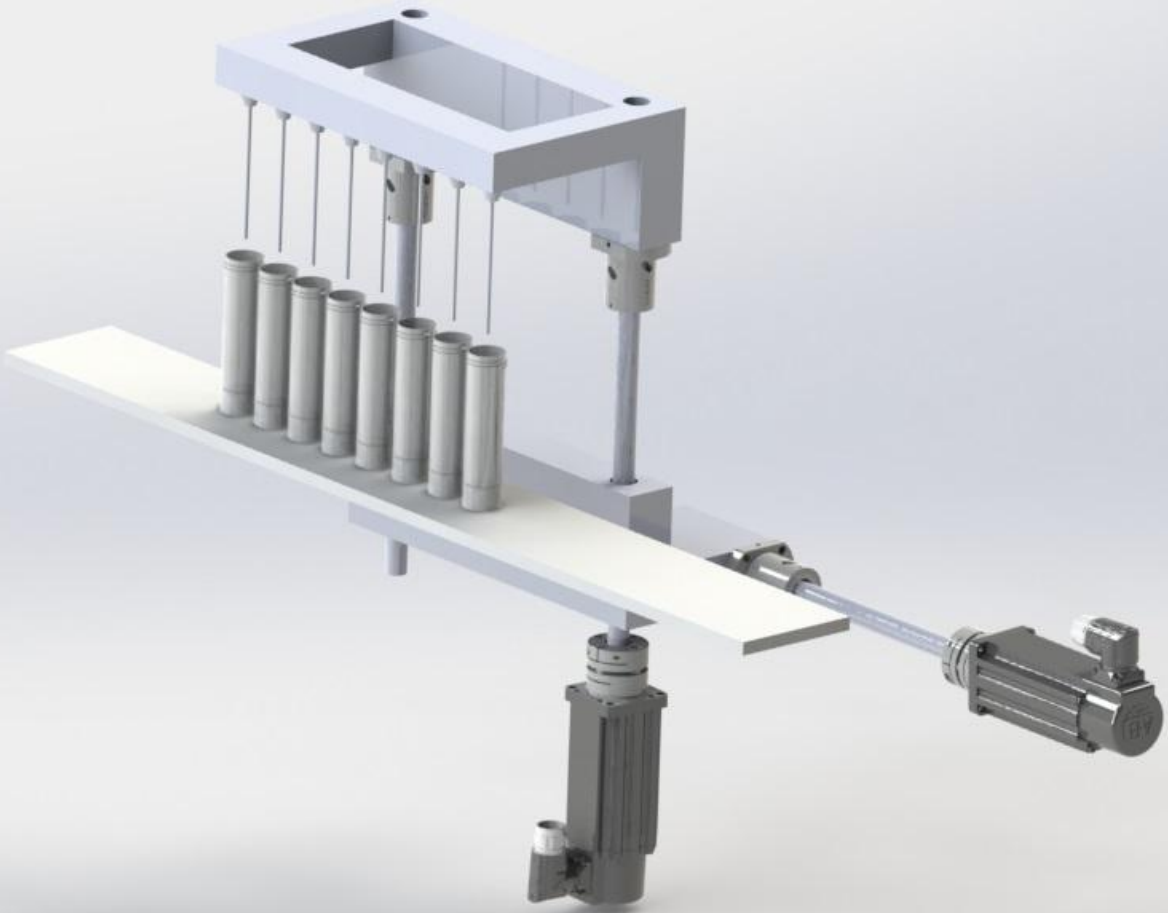
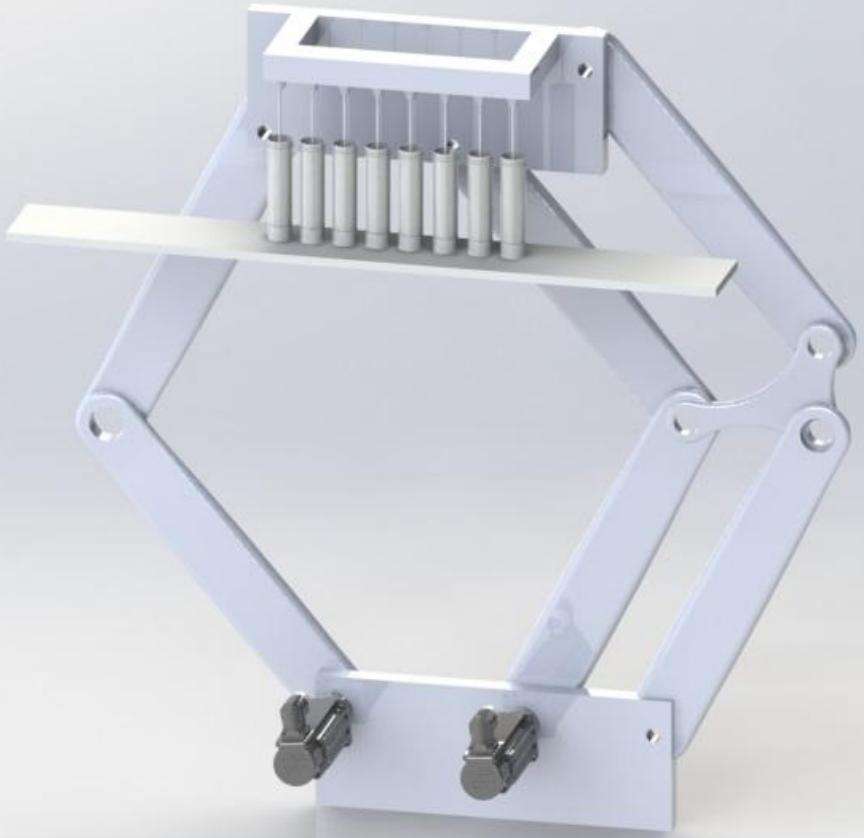
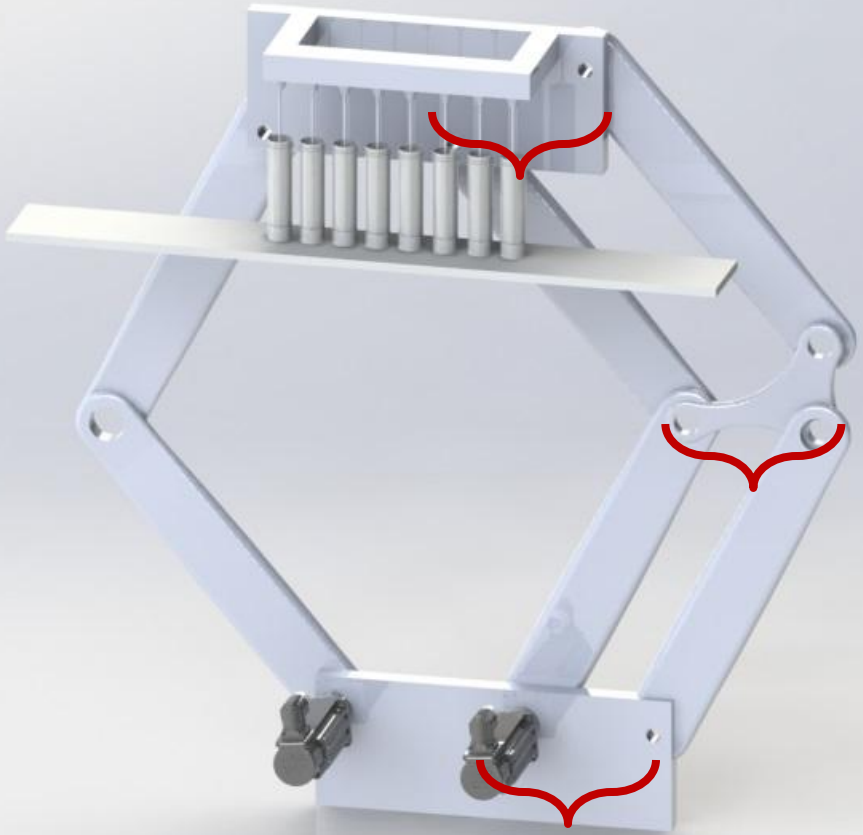
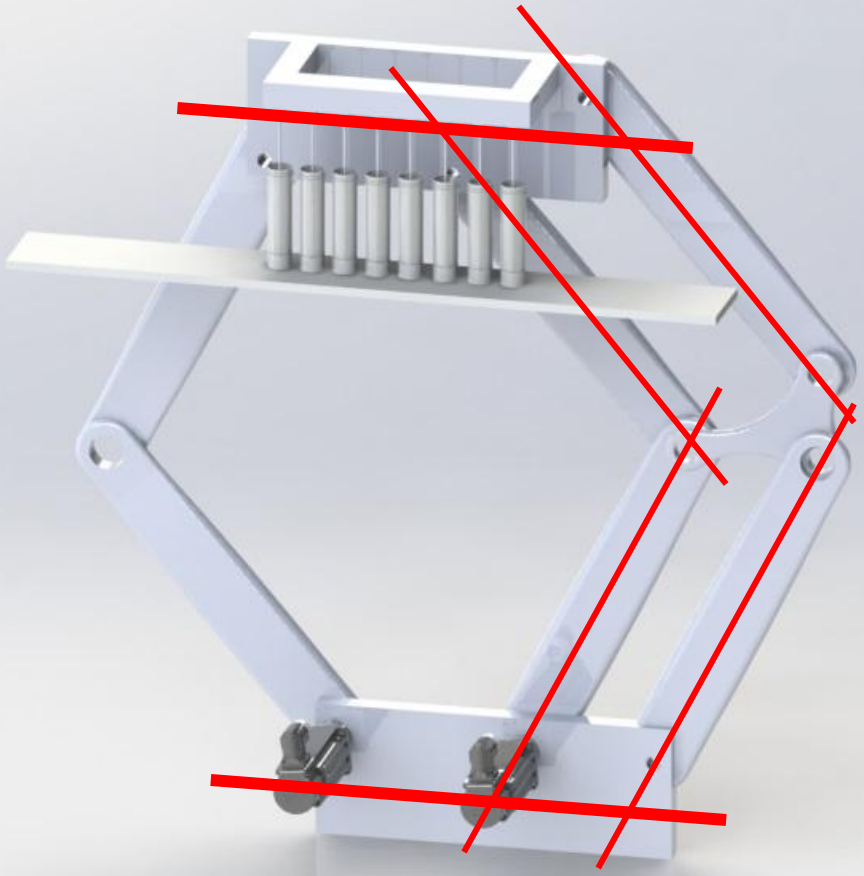
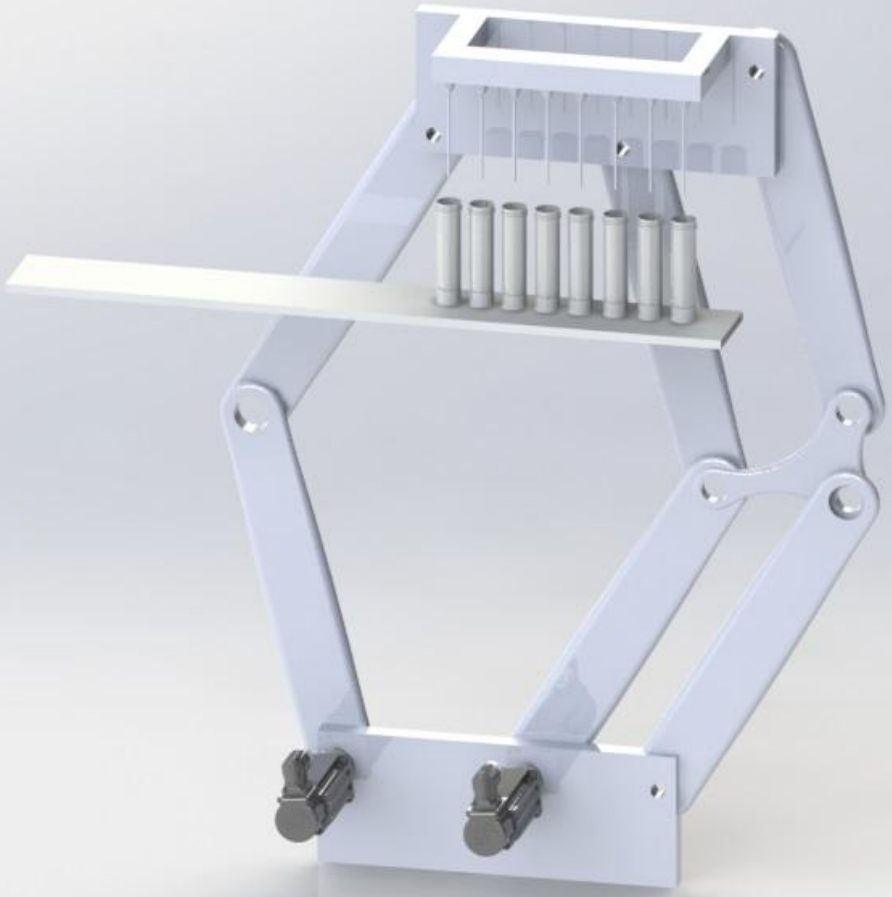


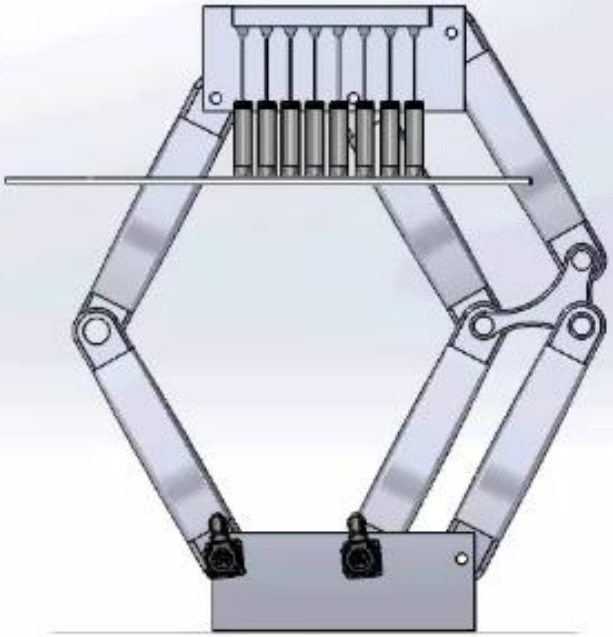








Animación



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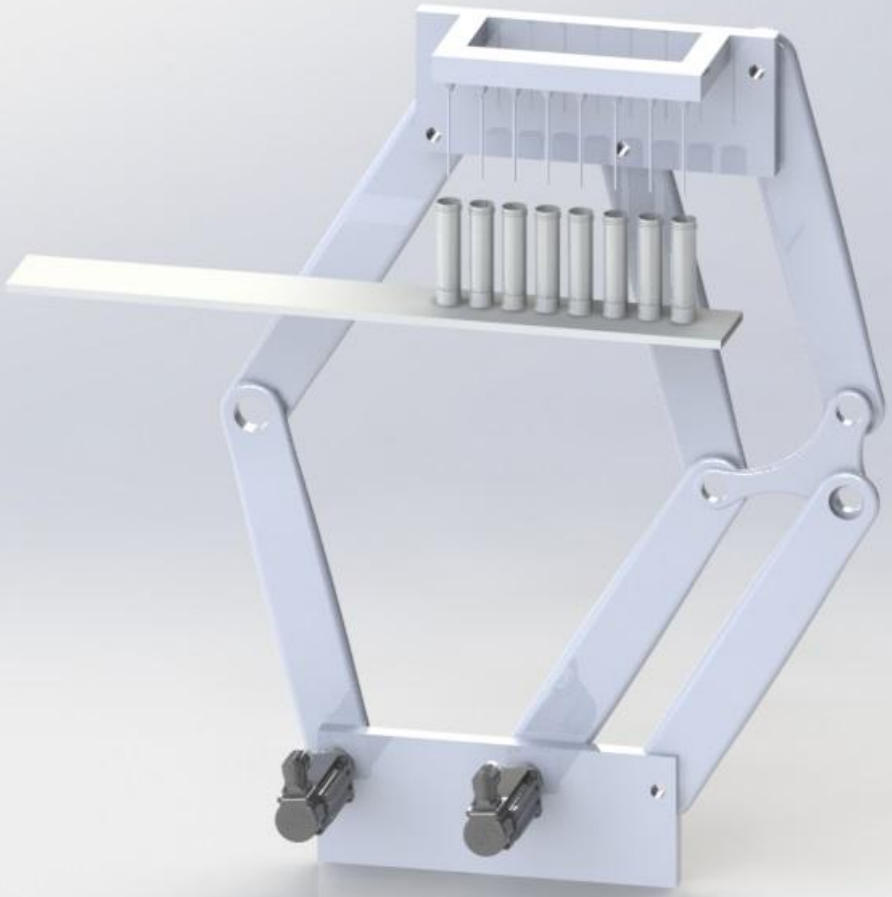
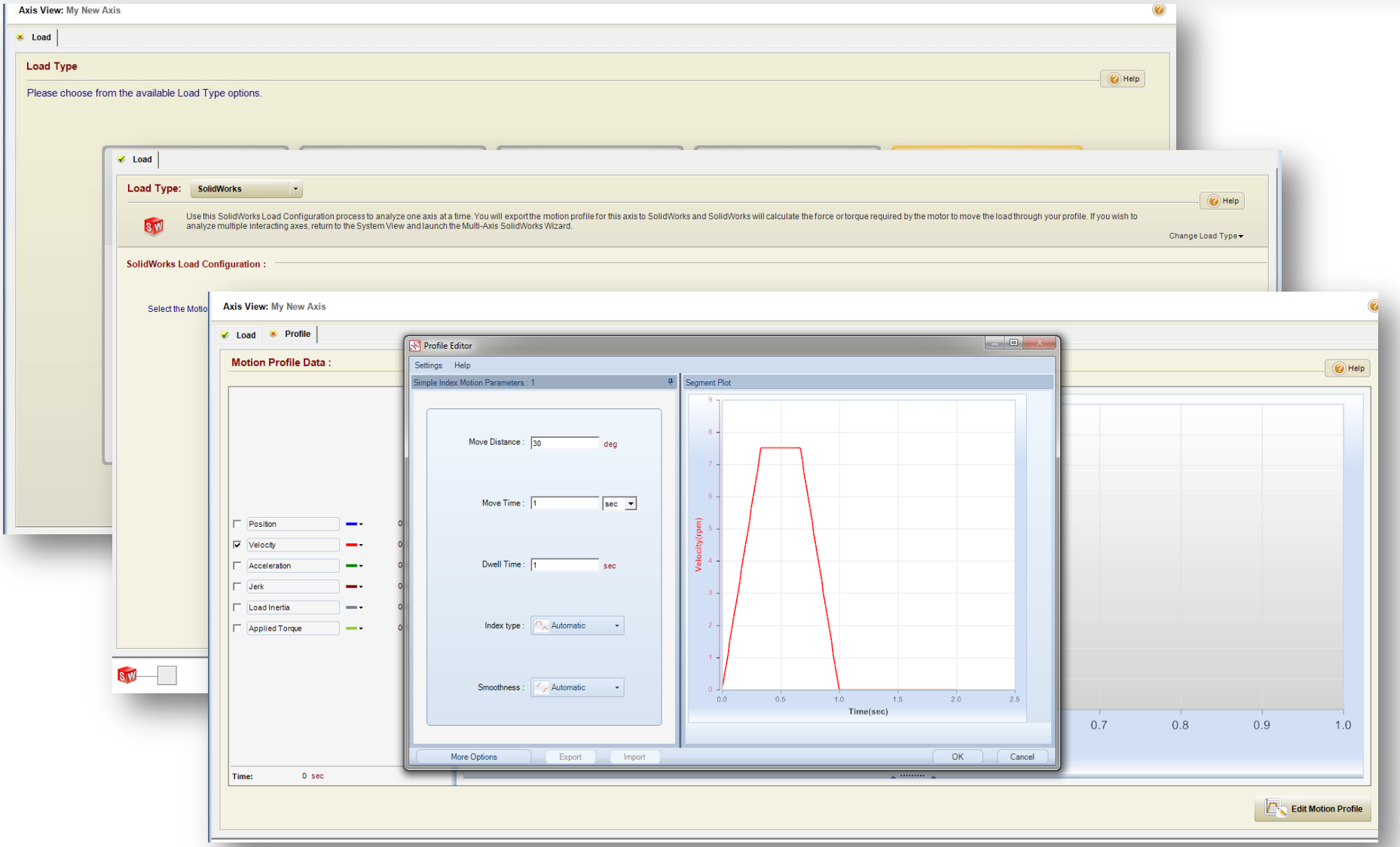


Integración con Motion Analyzer



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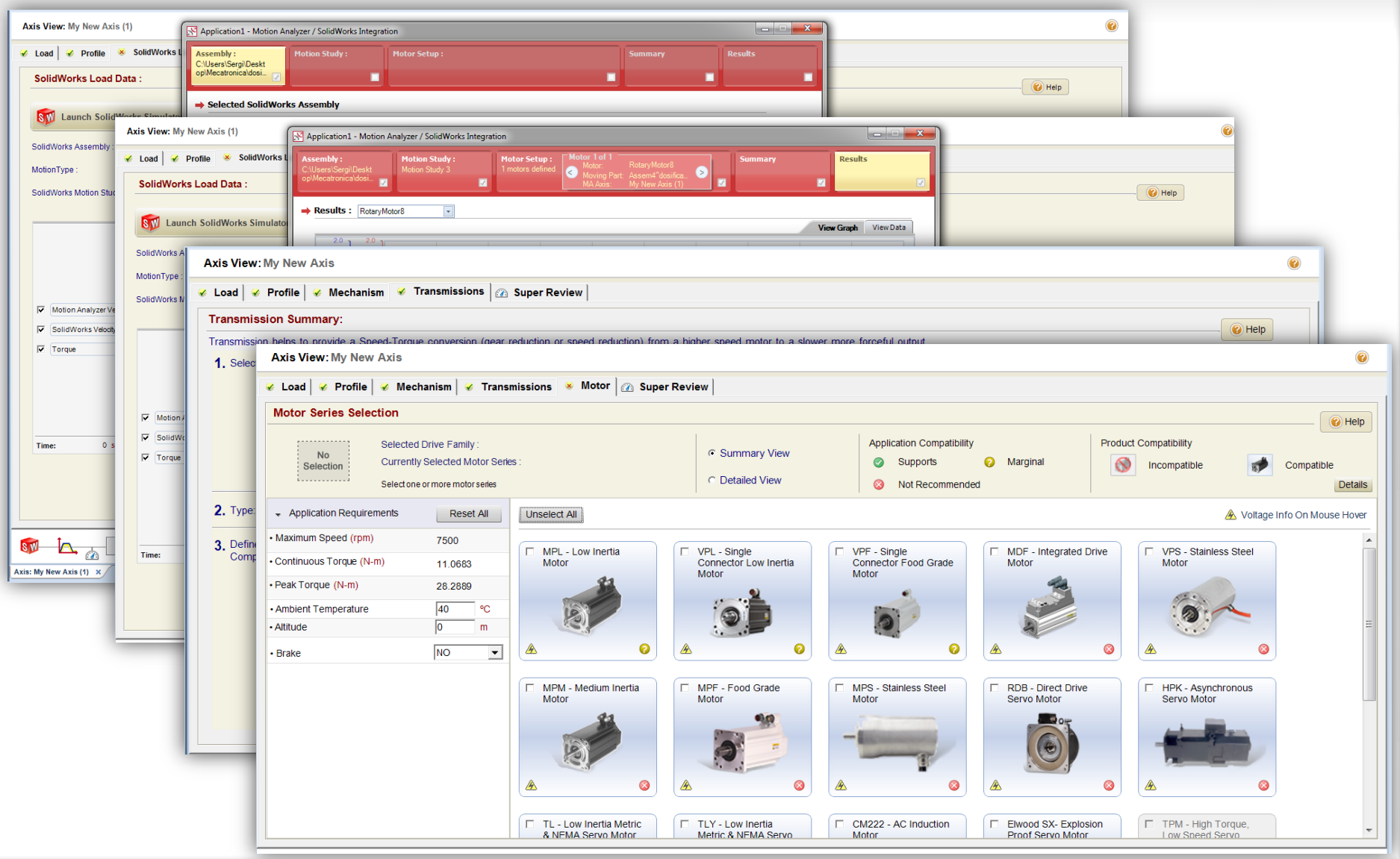
Integración con Motion Analyzer



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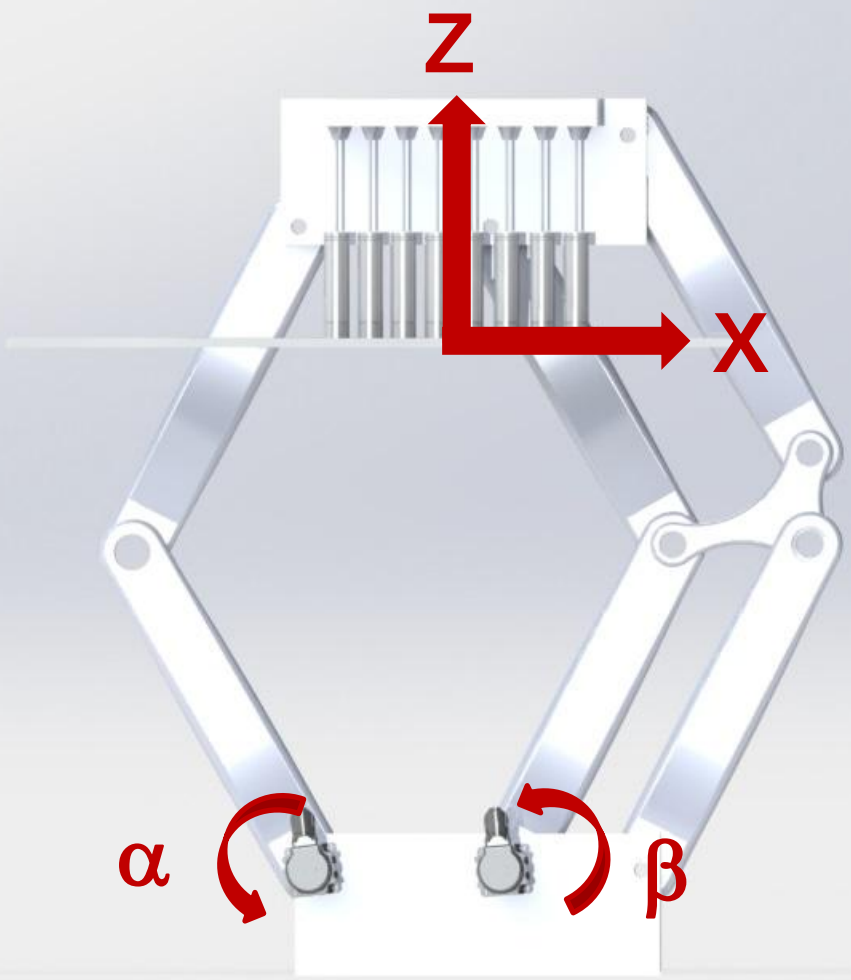
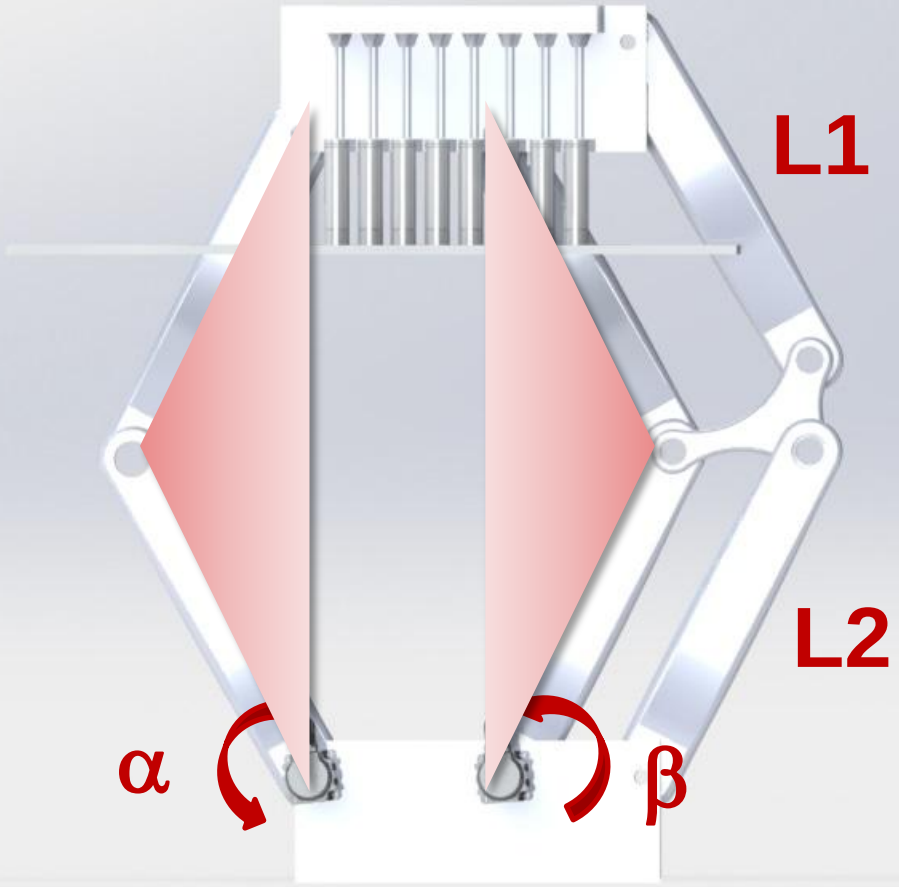

z
x
α
β


L1
L2
α
β

Controladores

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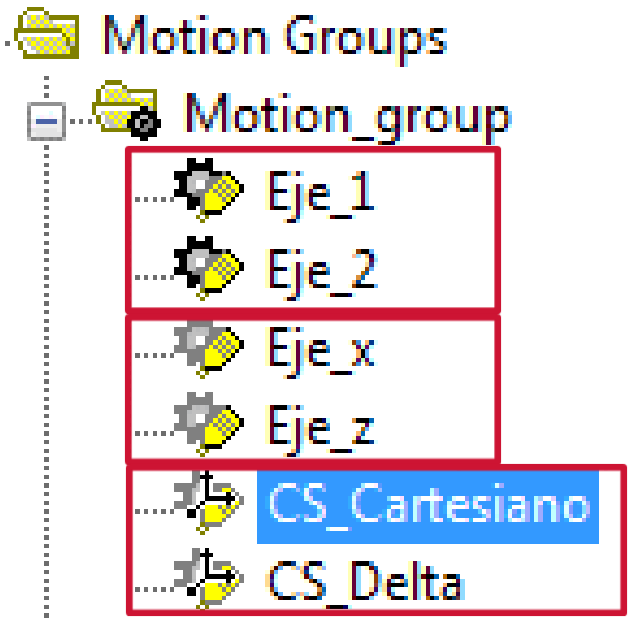
Logix hace mucho por nosotros



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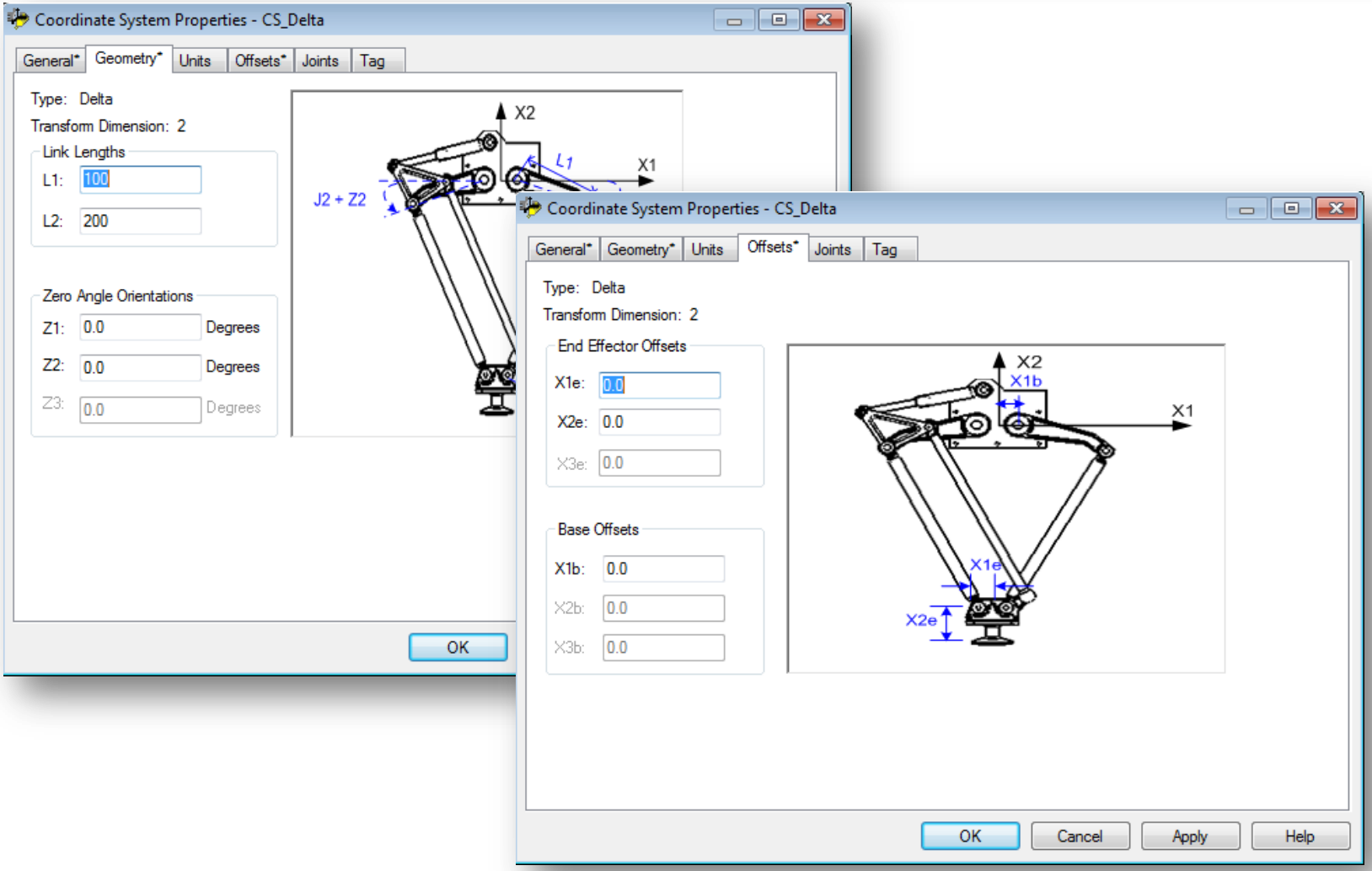

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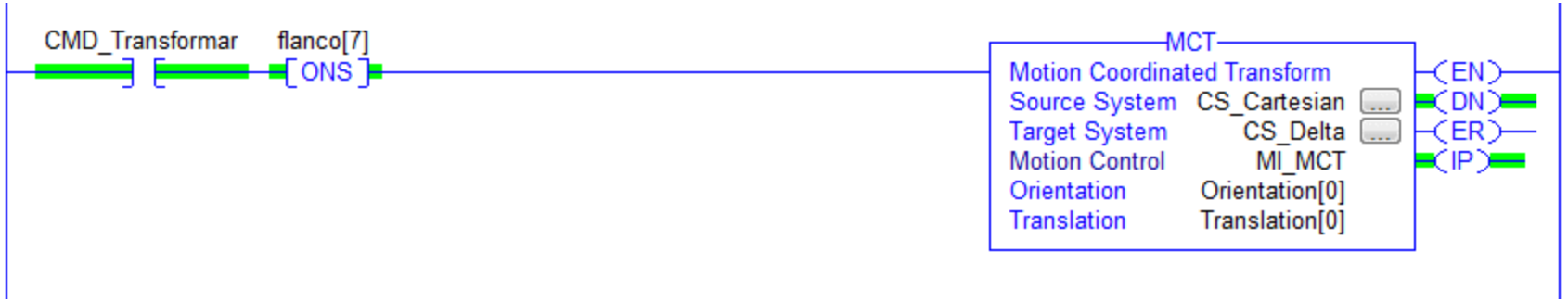

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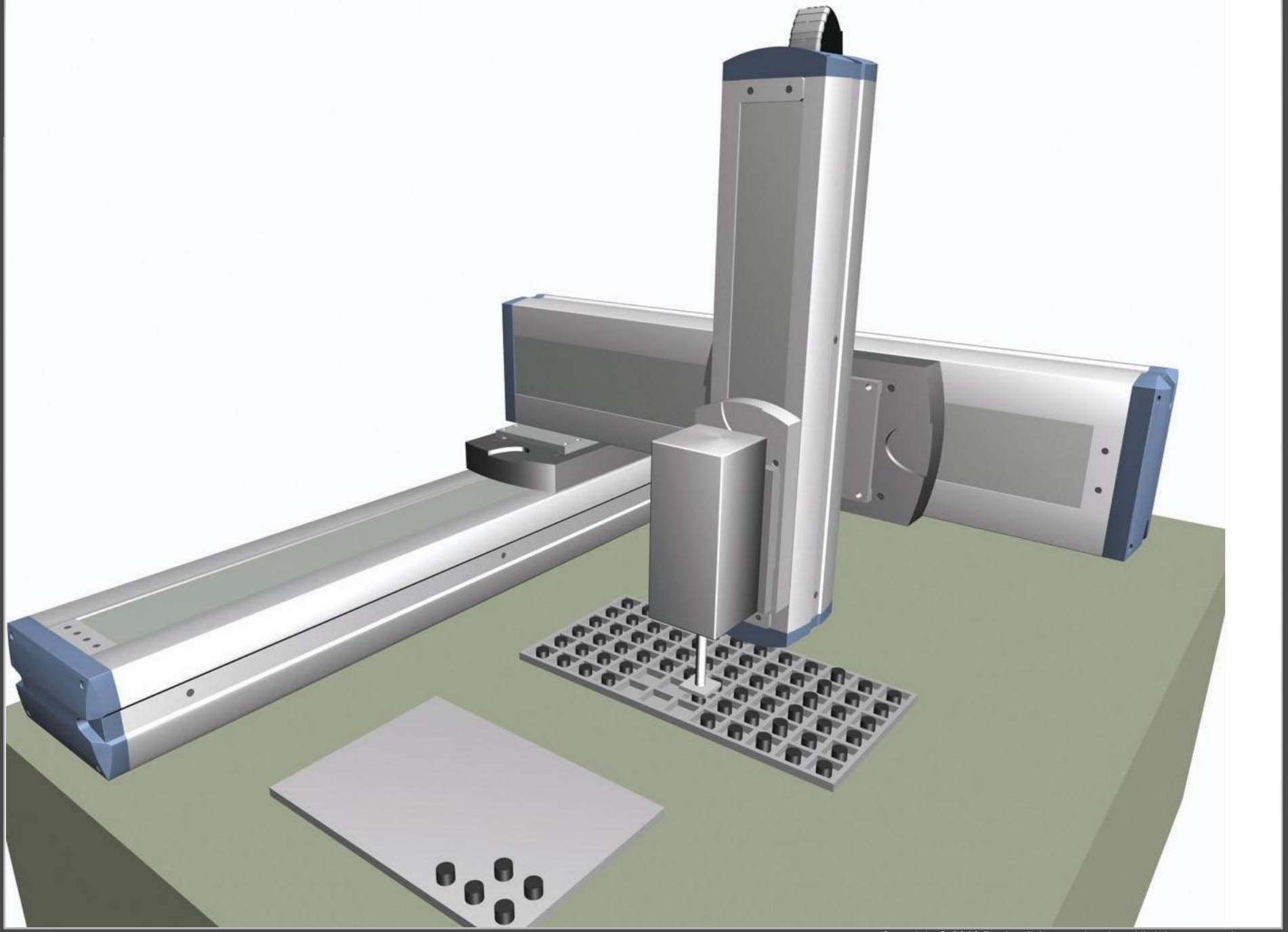

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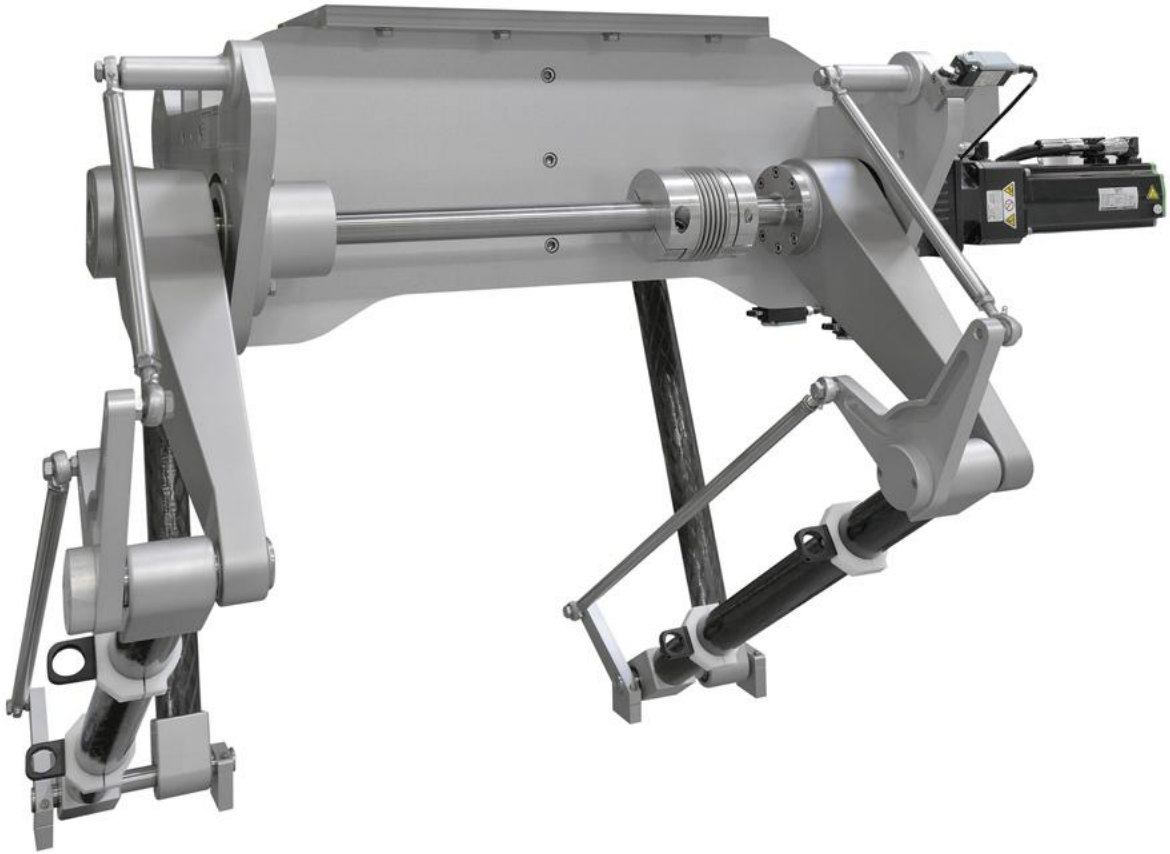

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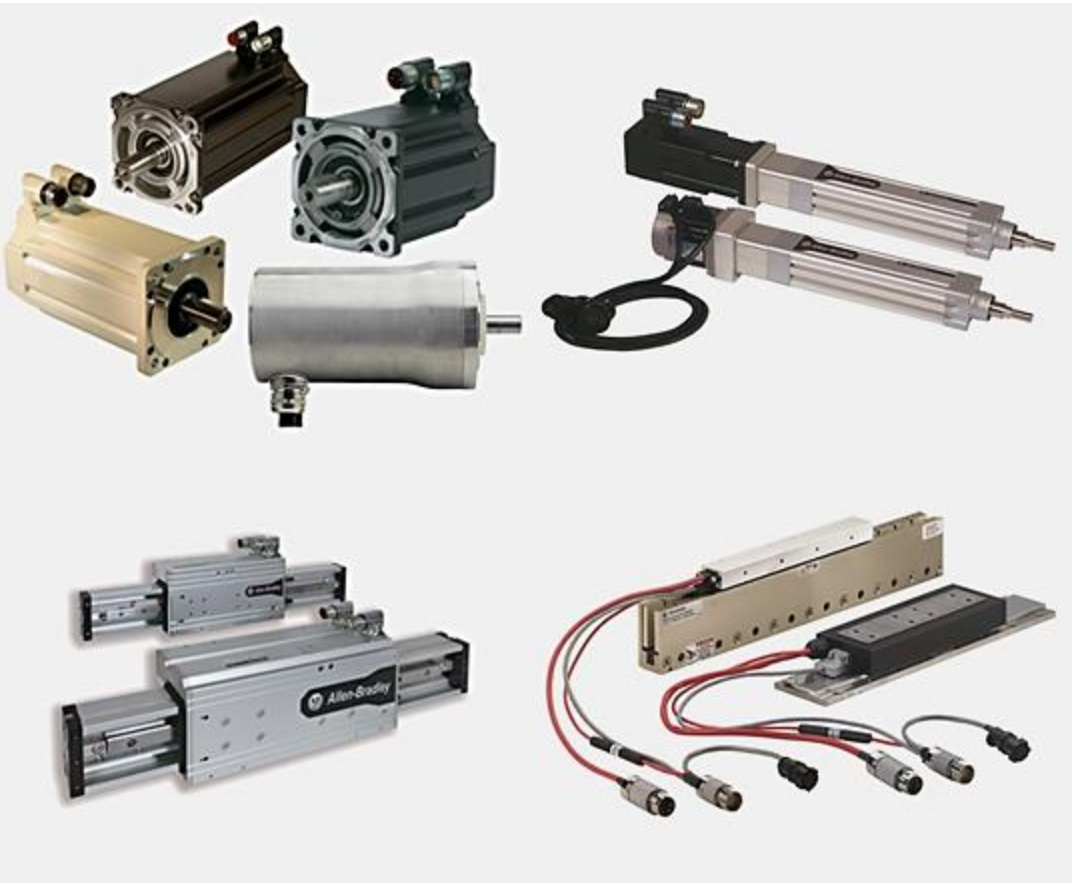
Solución de control de movimiento



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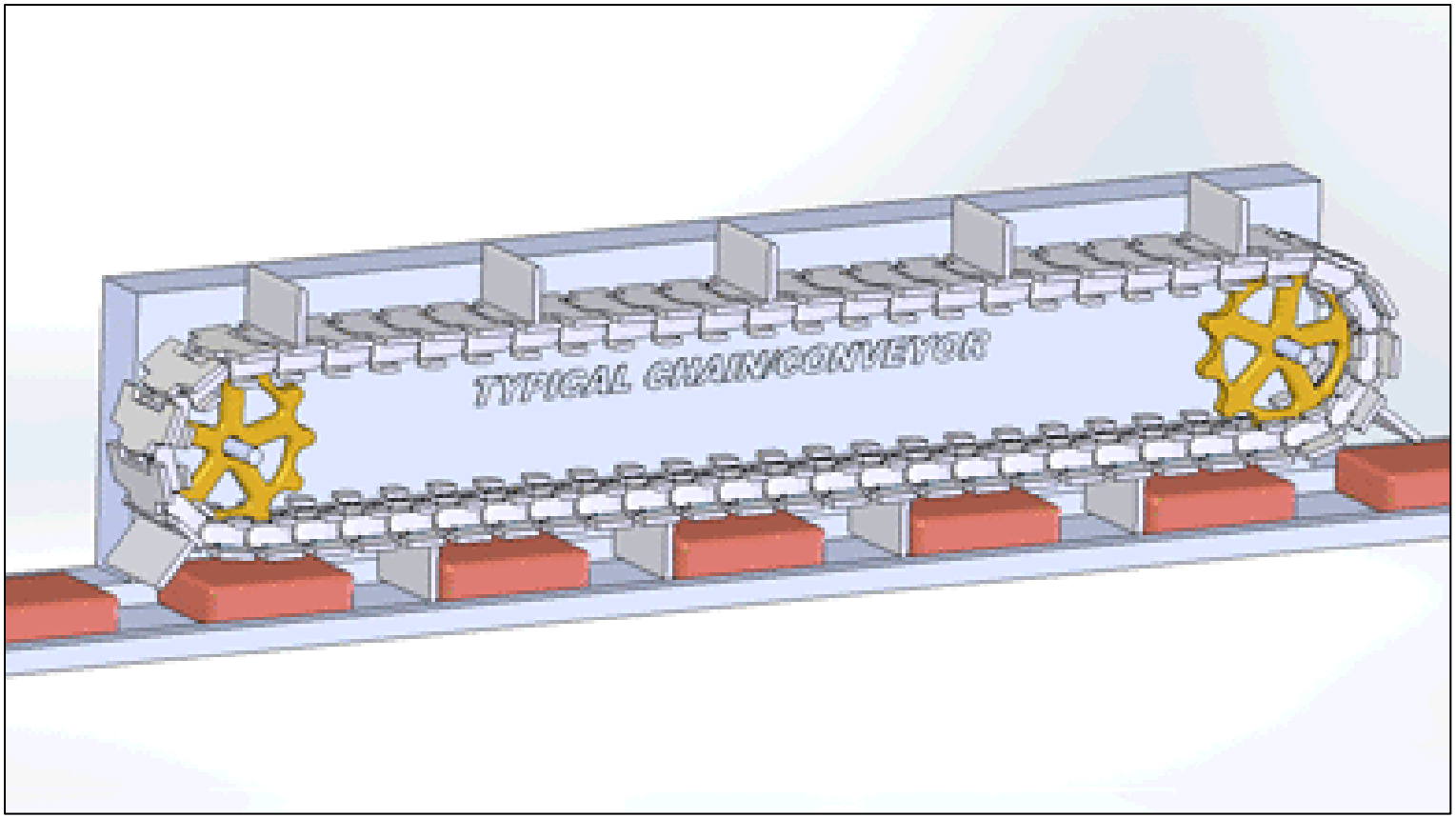
iTrak



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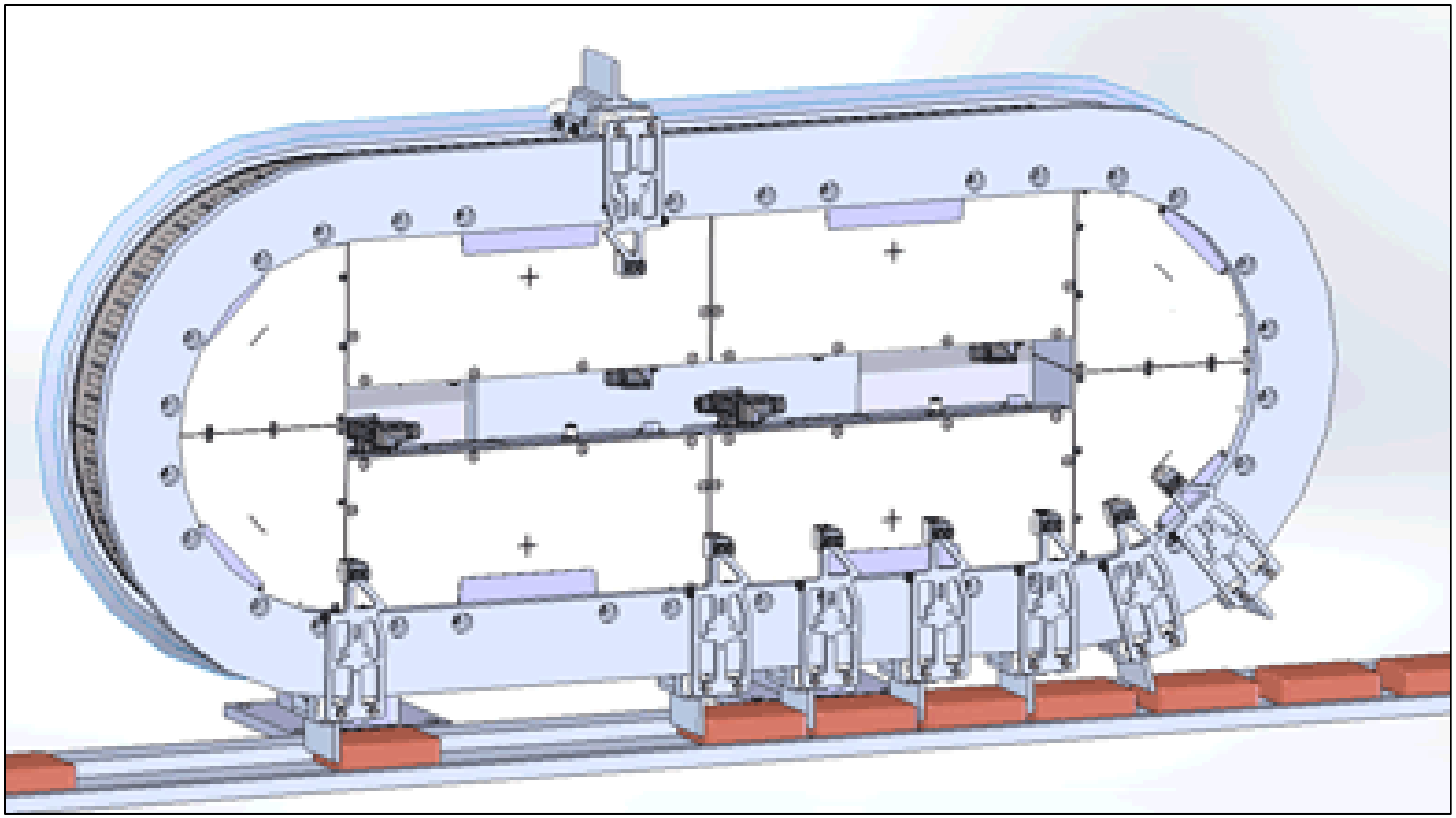

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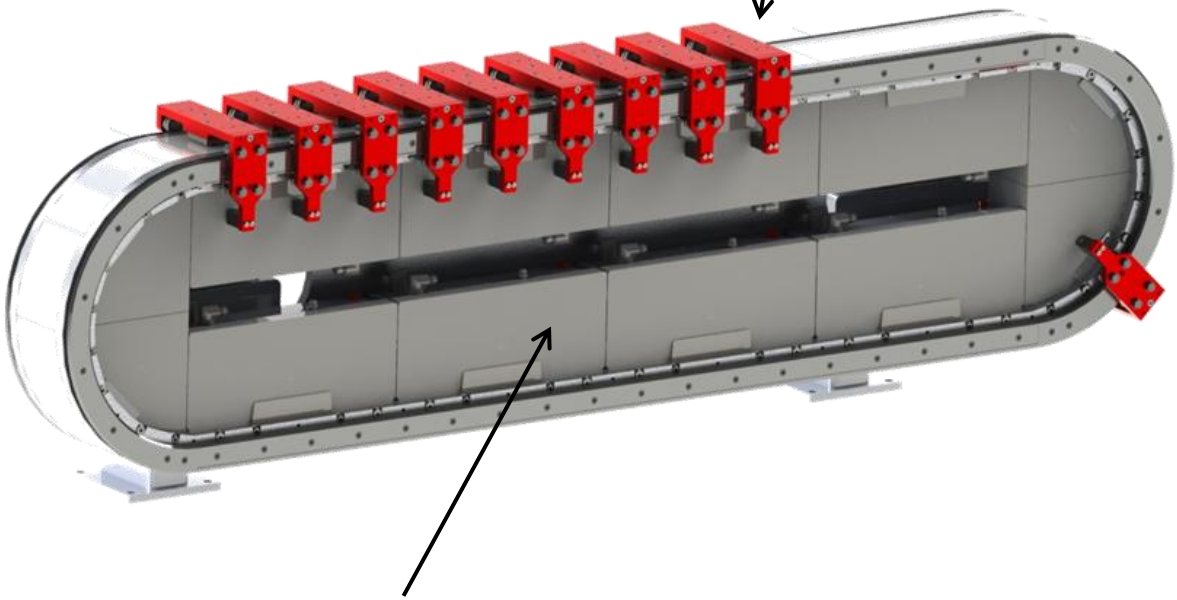

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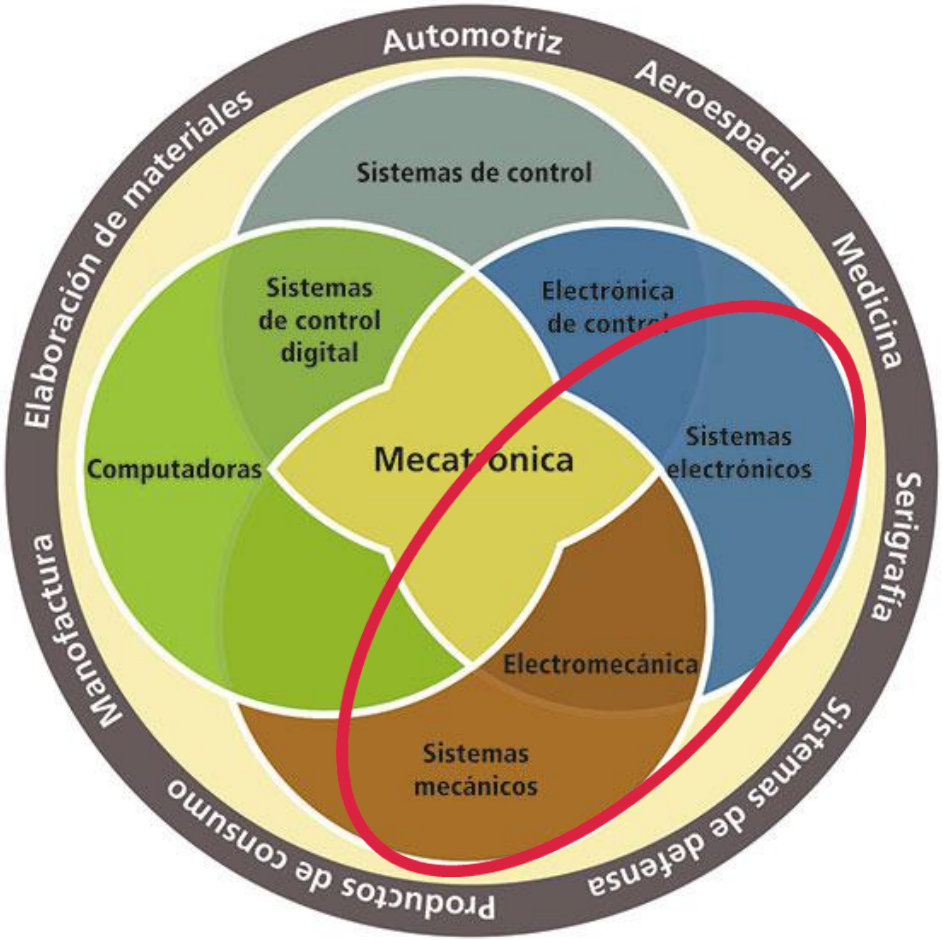
Mecatrónica



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Eficiencia

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Diagnóstico

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Un correcto diagnóstico

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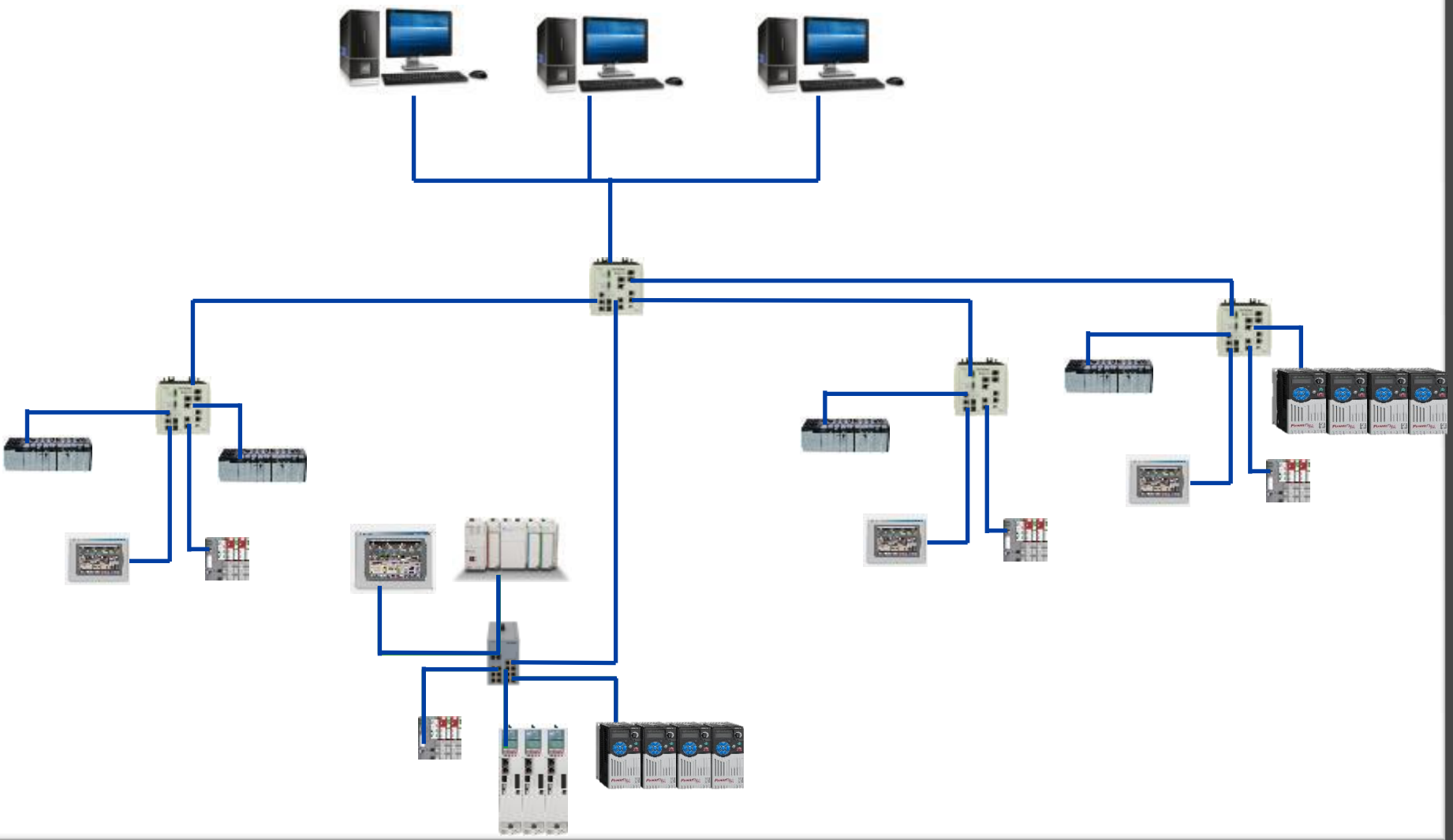
Integración de una máquina



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El colapso puede ser en los dos sentidos

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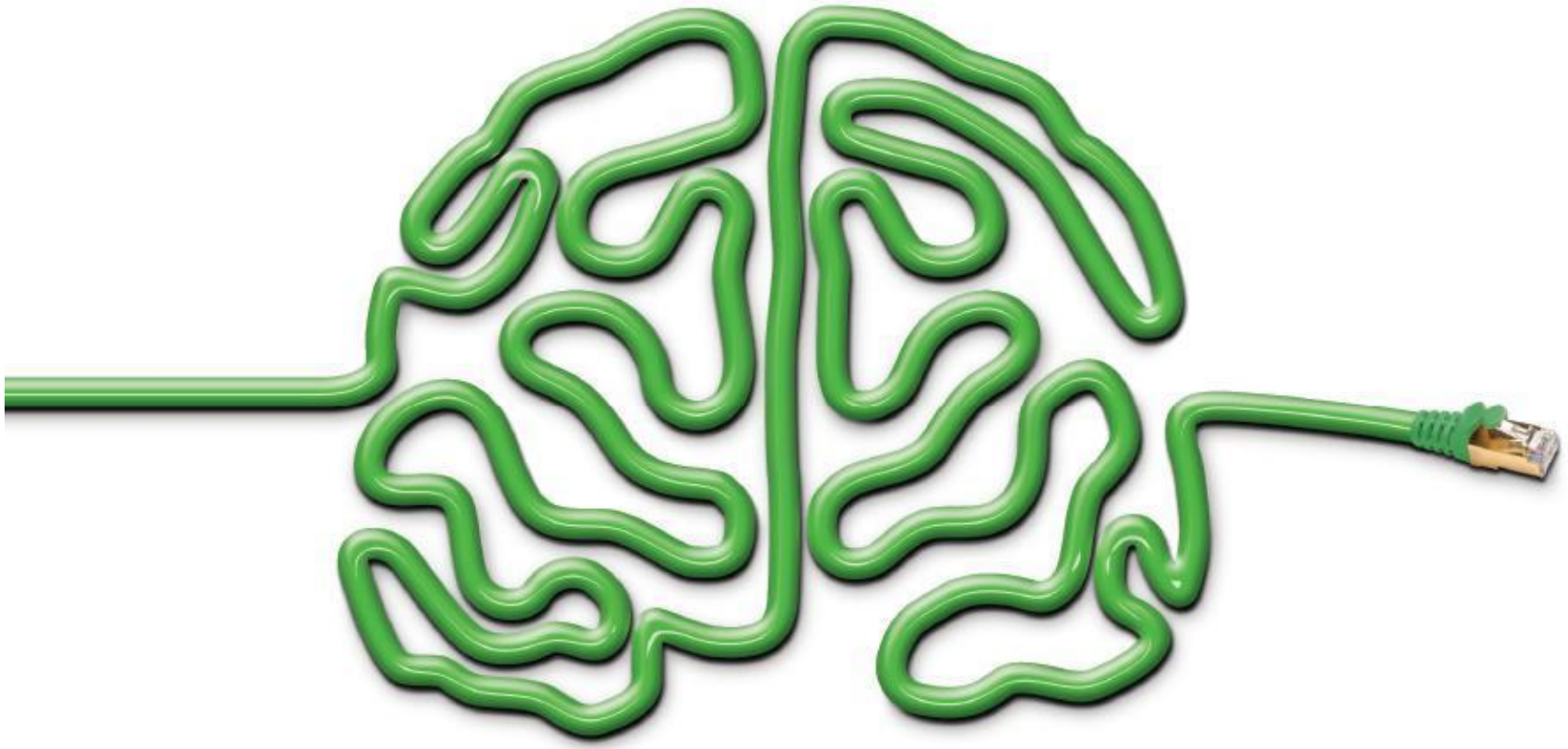
Redes de comunicaciones



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Gestión de la información

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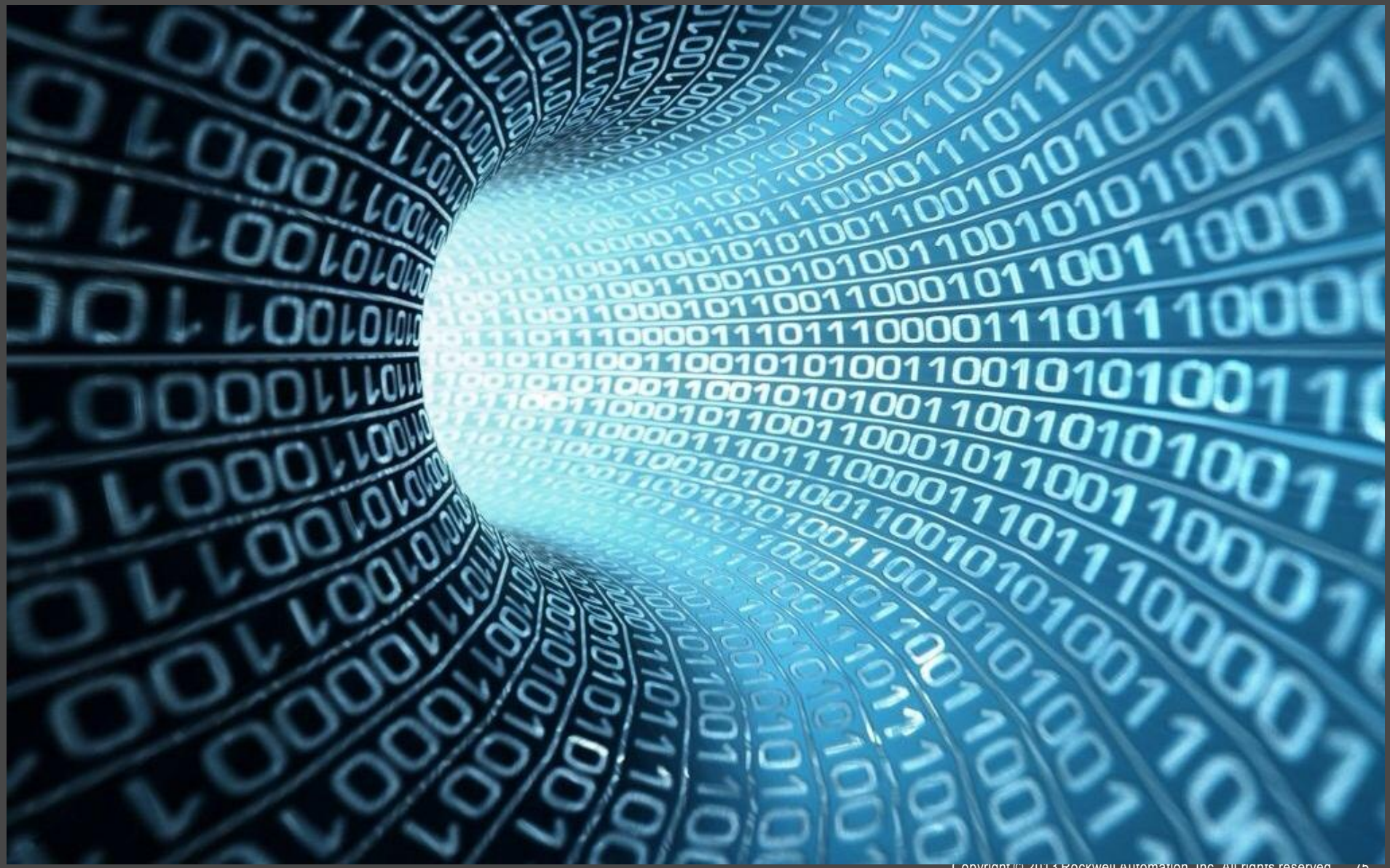

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Las seguridades

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… no siempre han estado a la altura

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Analogía: La seguridad en los cascos

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past

- Seguro!
- Incómodo
- Pesado
- No ventilado

present

- ¡Seguro!
- Comodo(pads)
- ligero (foam or composite)
- Ventilado

performance

- Seguro
- Cómodo
- Ligero
- Ventil

Mejorando prestaciones!

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Y todo esto no es un capricho

	Empresa clásica
Costes de ingeniería	€
Costes en “hierro”	€€
Costes en “potencia”	€€
Beneficios	€€
Precio de venta	€€€€€€

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Segunda máquina

	Empresa clásica
Costes de ingeniería	€
Costes en “hierro”	€€
Costes en “potencia”	€€
Beneficios	€€
Precio de venta	€€€€€€

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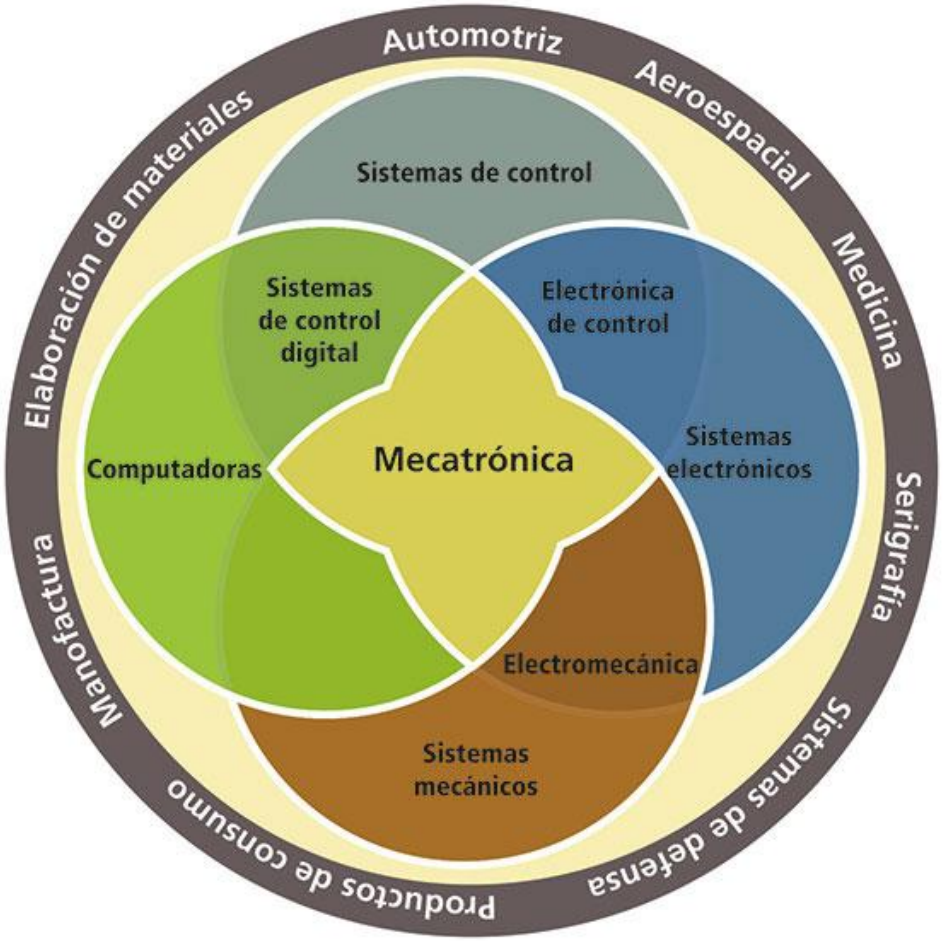
Podemos hacer una aproximación mecatrónica



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Muchas gracias

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