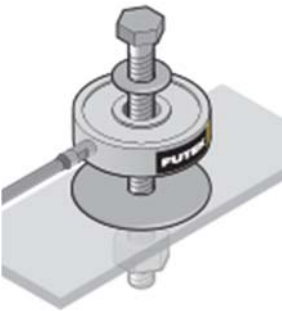



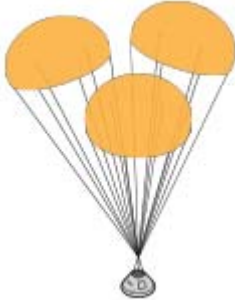
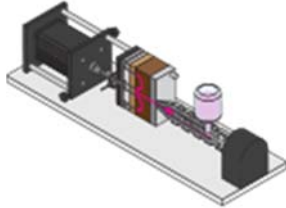



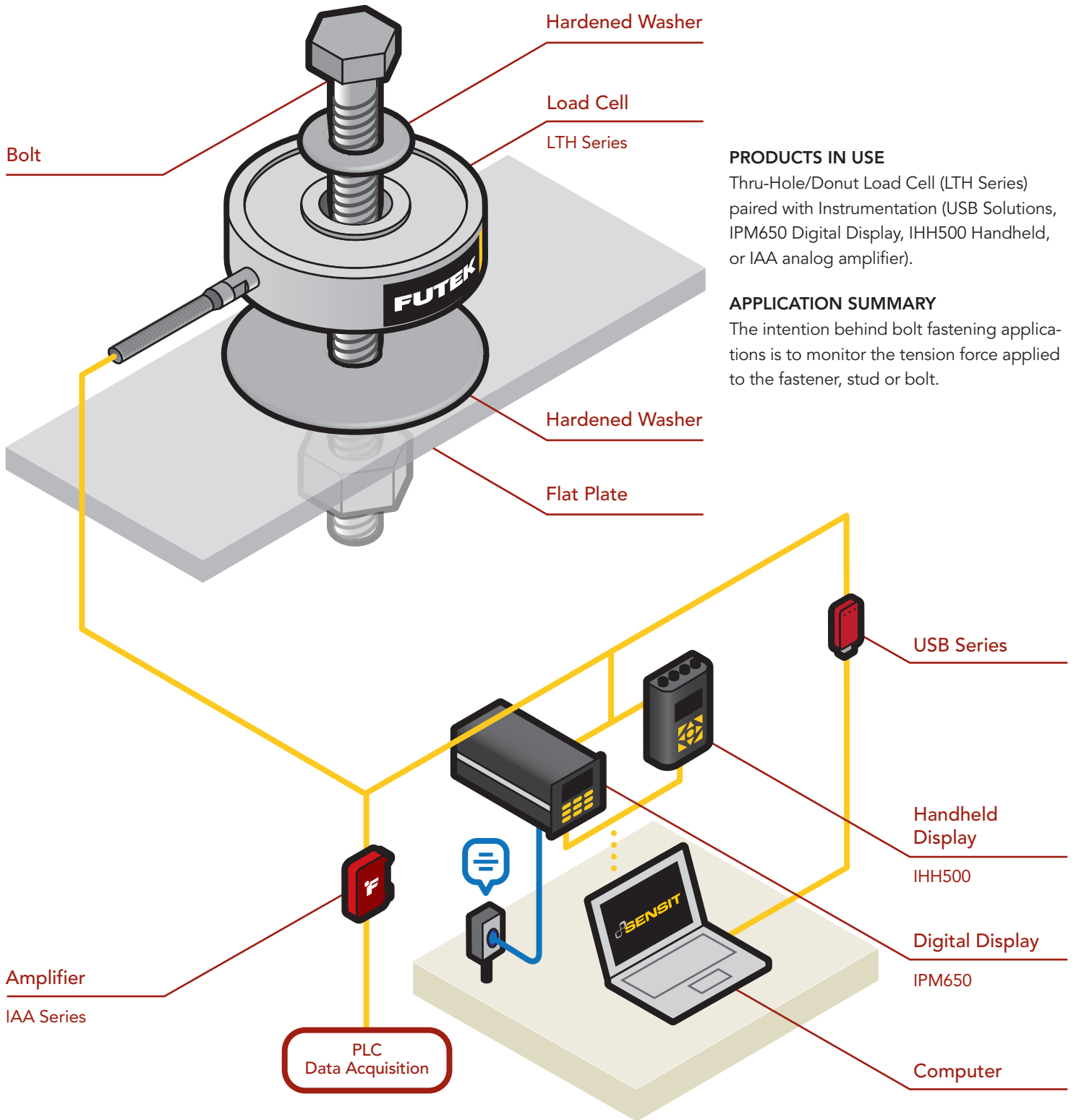
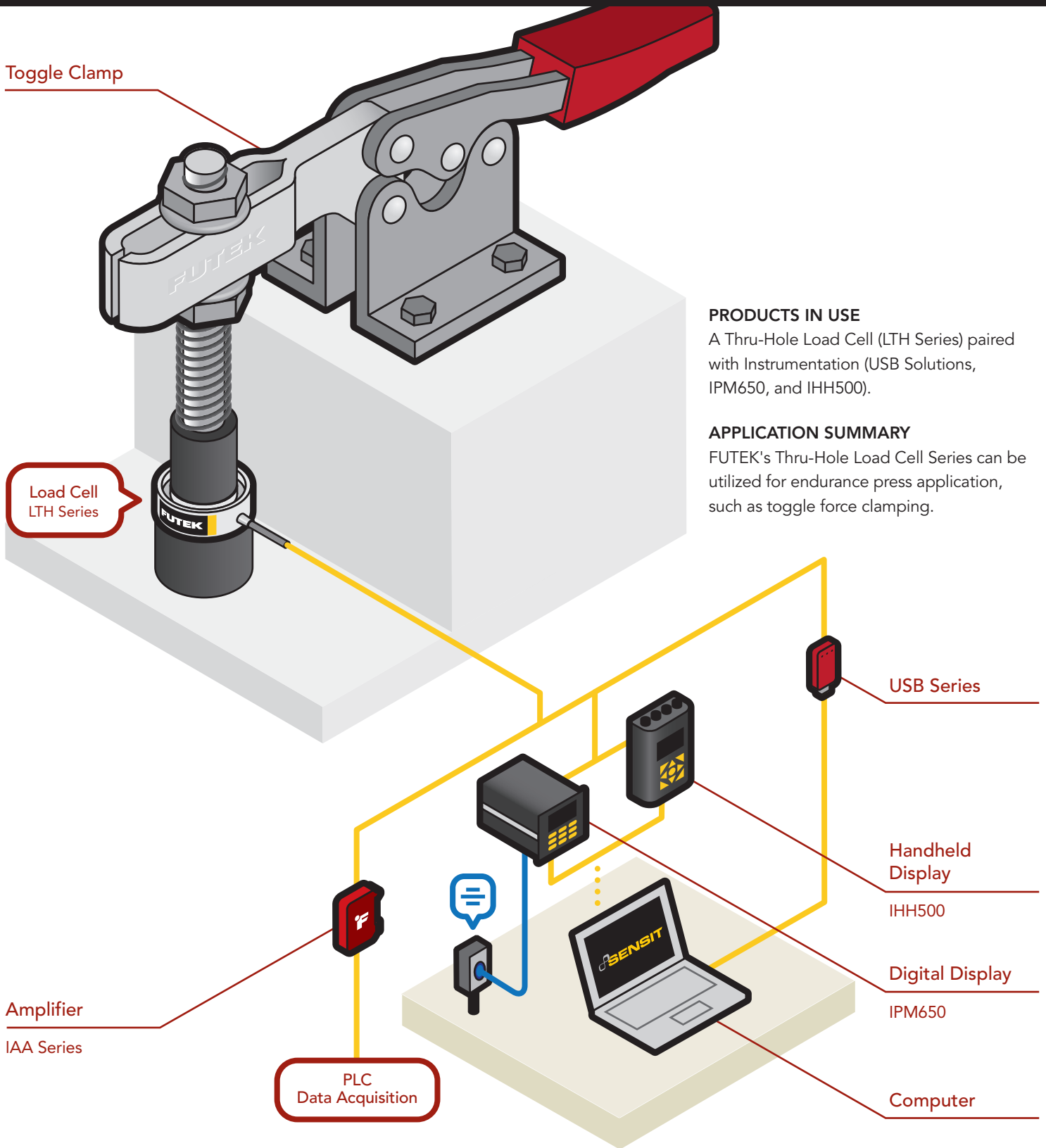


Applicazioni celle di carico a rondella - serie LTH

Per lo più riconosciute per il loro utilizzo in applicazioni con fissaggi a vite, le celle di carico a rondella vengono utilizzate in diverse applicazioni industriali. Dalle macchine automatiche, al controllo di processo, sui banchi di prova e collaudo sino ad impieghi spaziali (Rover su Marte).

<p>Bolt Fastening (Application 102)</p>	<p>Toggle Force Clamp (Application 103)</p>	<p>Nut Runner Force/Torque (Application 113)</p>
		
<p>MSL Mars Rover Cryogenic (Application 126)</p>	<p>Orion Deployment Mechanism (Application 136)</p>	<p>Injection Molding Force Feedback (Application 159)</p>
		
<p>Precision Wire Tensioner (Application 166)</p>	<p>Prosthetic Foot Emulator (Application 167)</p>	<p>Shark Bite Force Measurement (Application 171)</p>
		



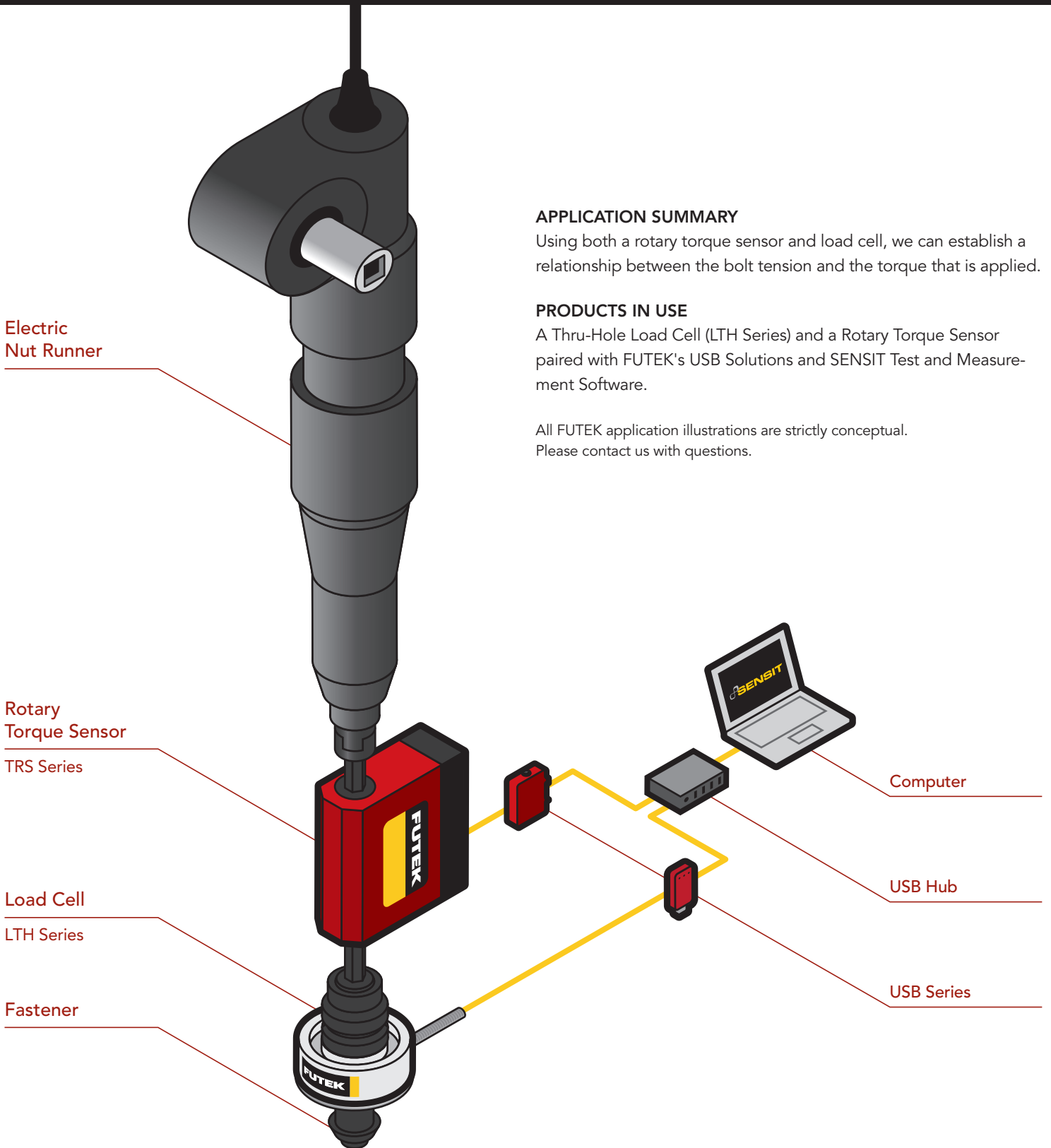


PRODUCTS IN USE

A Thru-Hole Load Cell (LTH Series) paired with Instrumentation (USB Solutions, IPM650, and IHH500).

APPLICATION SUMMARY

FUTEK's Thru-Hole Load Cell Series can be utilized for endurance press application, such as toggle force clamping.



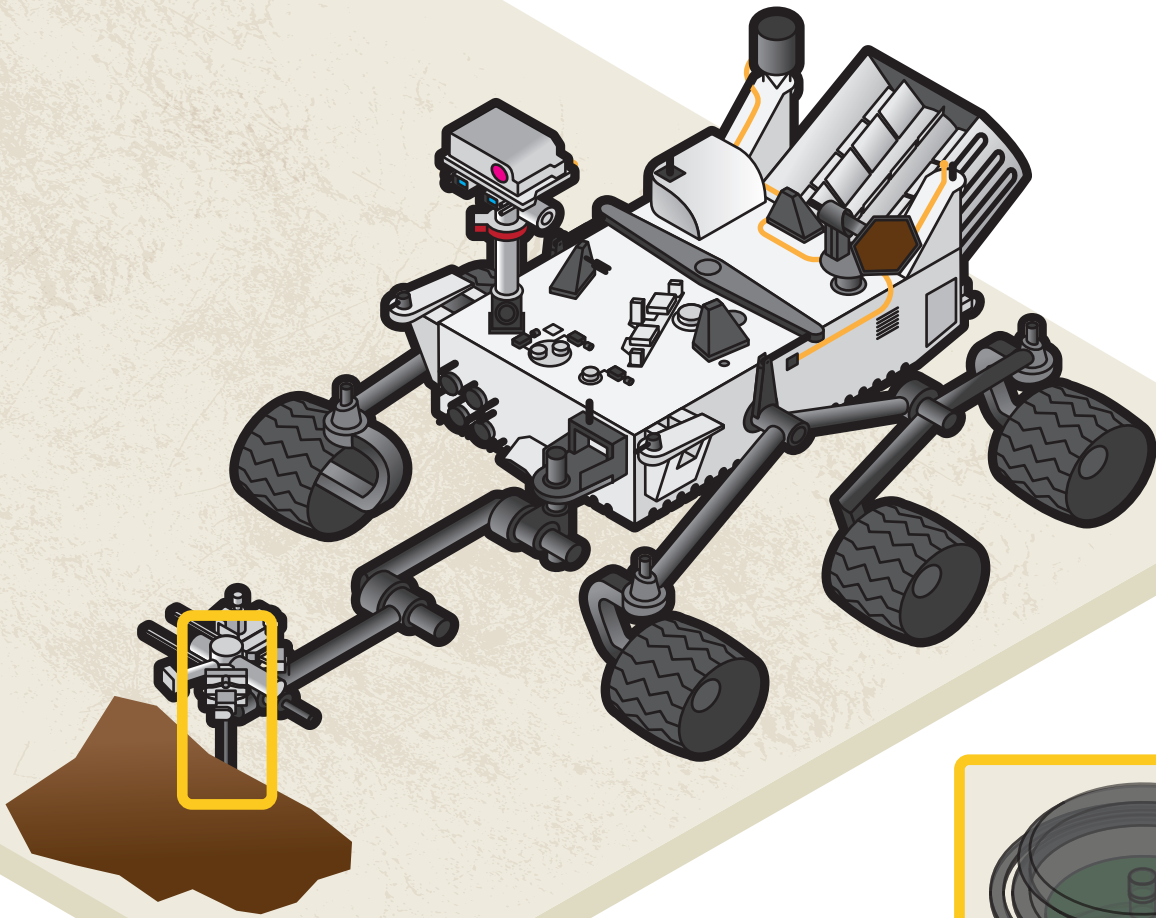
APPLICATION SUMMARY

Using both a rotary torque sensor and load cell, we can establish a relationship between the bolt tension and the torque that is applied.

PRODUCTS IN USE

A Thru-Hole Load Cell (LTH Series) and a Rotary Torque Sensor paired with FUTEK's USB Solutions and SENSIT Test and Measurement Software.

All FUTEK application illustrations are strictly conceptual. Please contact us with questions.



PRODUCTS IN USE

NASA/JPL-Space/Flight Qualified Cryogenic Dual-Bridge Donut Load Cell.

APPLICATION SUMMARY

FUTEK was commissioned by NASA to develop a cryogenic donut load cell directly operating within Curiosity's drilling arm. This sensor stands responsible to monitor the drill bit's forces as it pierces into the Martian terrain.

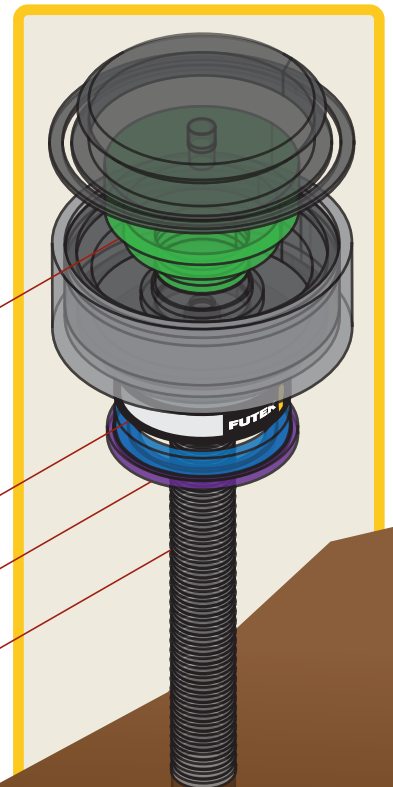
All FUTEK application illustrations are strictly conceptual. Please contact us with questions.

DTM Actuator

Cryogenic Load Cell

Gimbal Assembly

Ball Screw



Sensor Solution Source

Load · Torque · Pressure · Multi Axis · Calibration · Instruments · Software

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AP1030





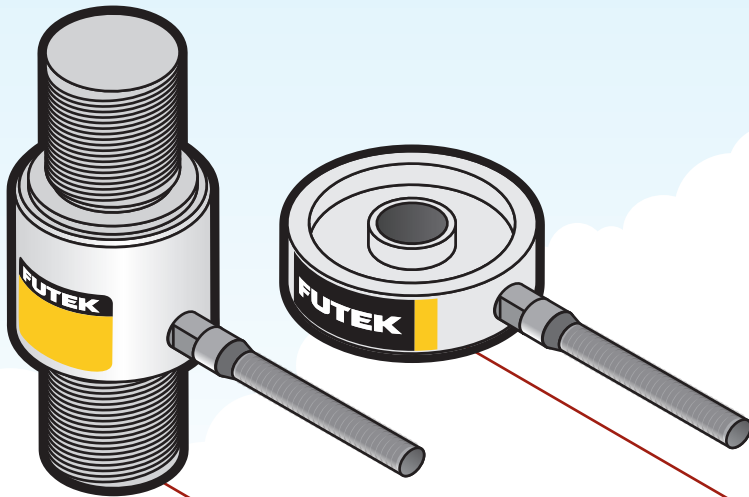
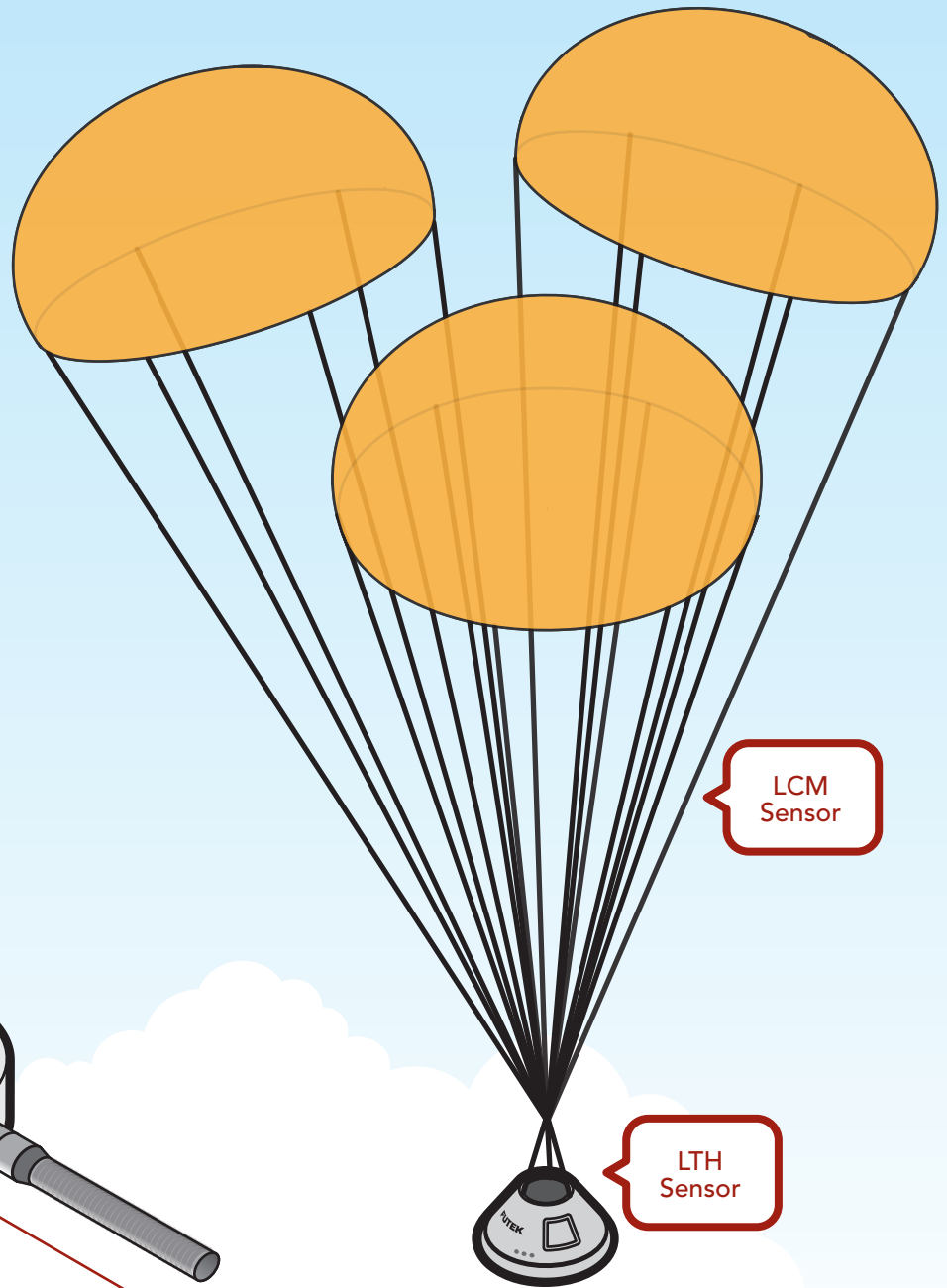
PRODUCTS IN USE

In-Line Load Cells (LCM Family) or Thru-Hole/Donut Load Cells (LTH Family).

APPLICATION SUMMARY

Aerospace parachute deployment mechanisms require high precision load cells throughout the testing phase. NASA's Orion capsule utilized FUTEK load cells to measure the force of the payload applied against the parachute system.

All FUTEK application illustrations are strictly conceptual. Please contact us with questions.



Miniature Inline Threaded Tension and Compression Load Cell

LCM Series

Donut Load Cell

LTH Series

Sensor Solution Source

Load · Torque · Pressure · Multi Axis · Calibration · Instruments · Software

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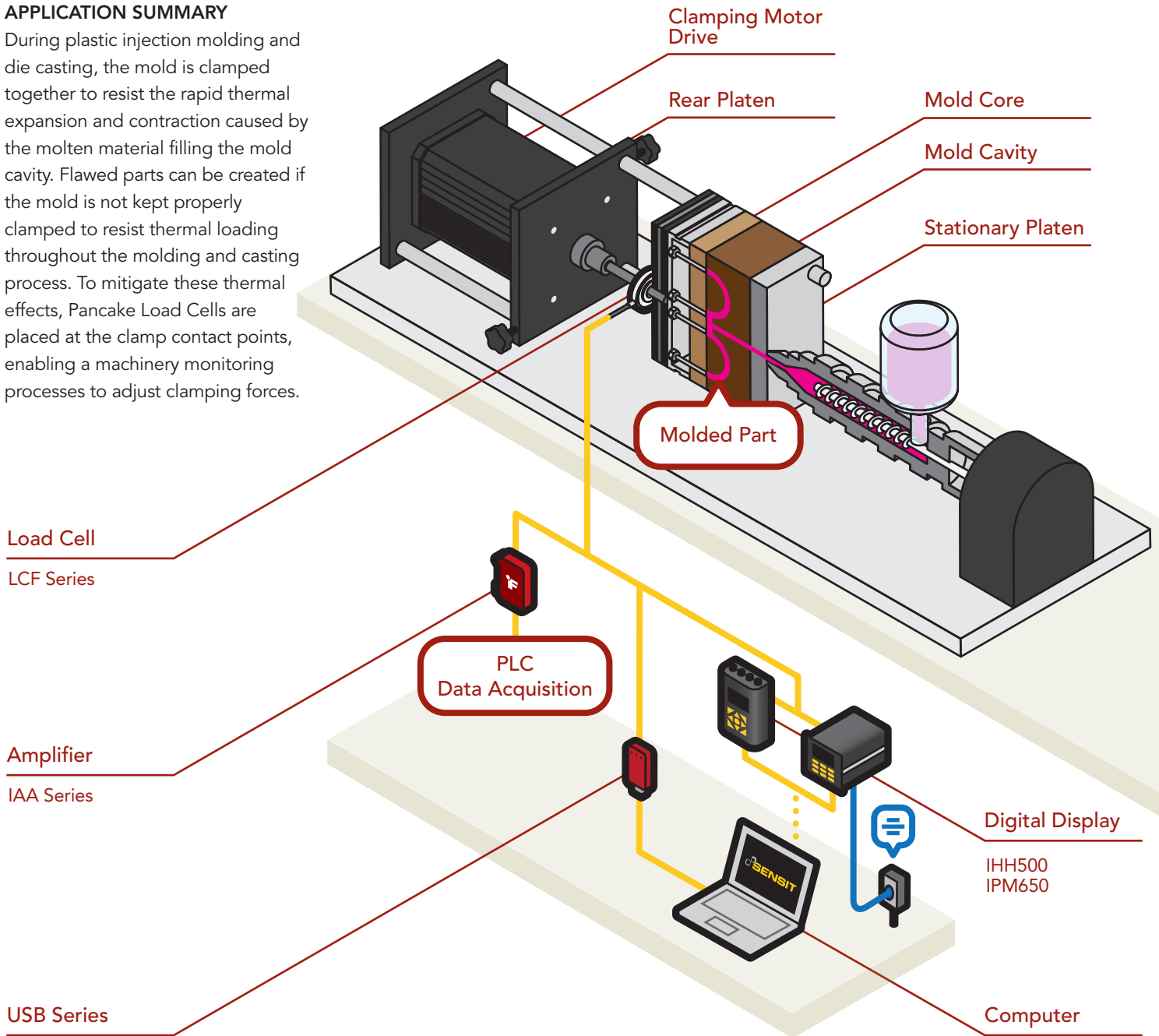
U.S. Manufacturer





APPLICATION SUMMARY

During plastic injection molding and die casting, the mold is clamped together to resist the rapid thermal expansion and contraction caused by the molten material filling the mold cavity. Flawed parts can be created if the mold is not kept properly clamped to resist thermal loading throughout the molding and casting process. To mitigate these thermal effects, Pancake Load Cells are placed at the clamp contact points, enabling a machinery monitoring processes to adjust clamping forces.



Load Cell
LCF Series

Amplifier
IAA Series

USB Series

PLC
Data Acquisition

Digital Display
IHH500
IPM650

Computer

PRODUCTS IN USE

FUTEK's Universal Pancake Load Cells (LCF Series) coupled with the IAA Series analog amplifier for feedback into a PLC.

All FUTEK application illustrations are strictly conceptual. Please contact us with questions.

Sensor Solution Source

Load · Torque · Pressure · Multi Axis · Calibration · Instruments · Software

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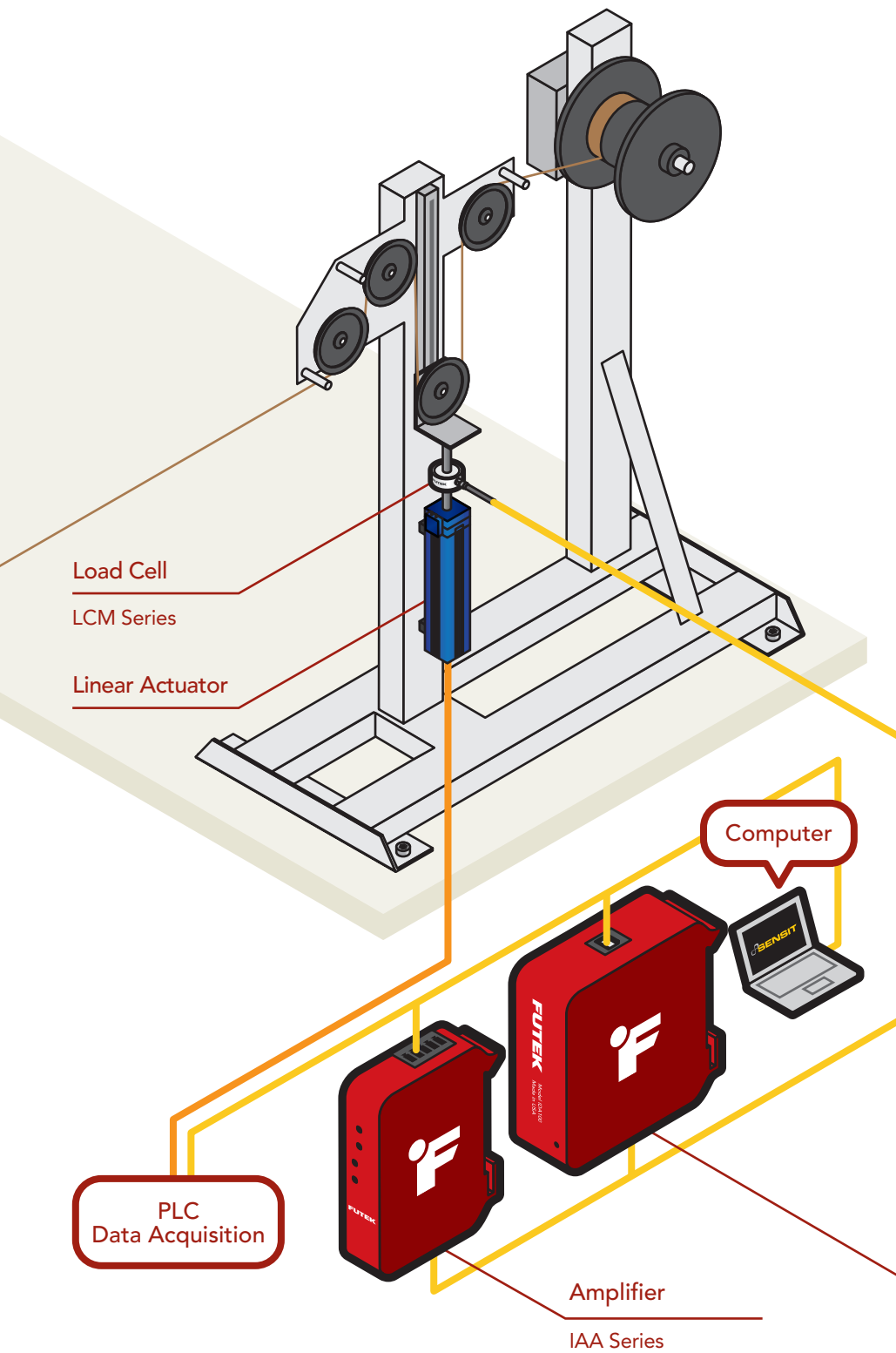


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U.S. Manufacturer



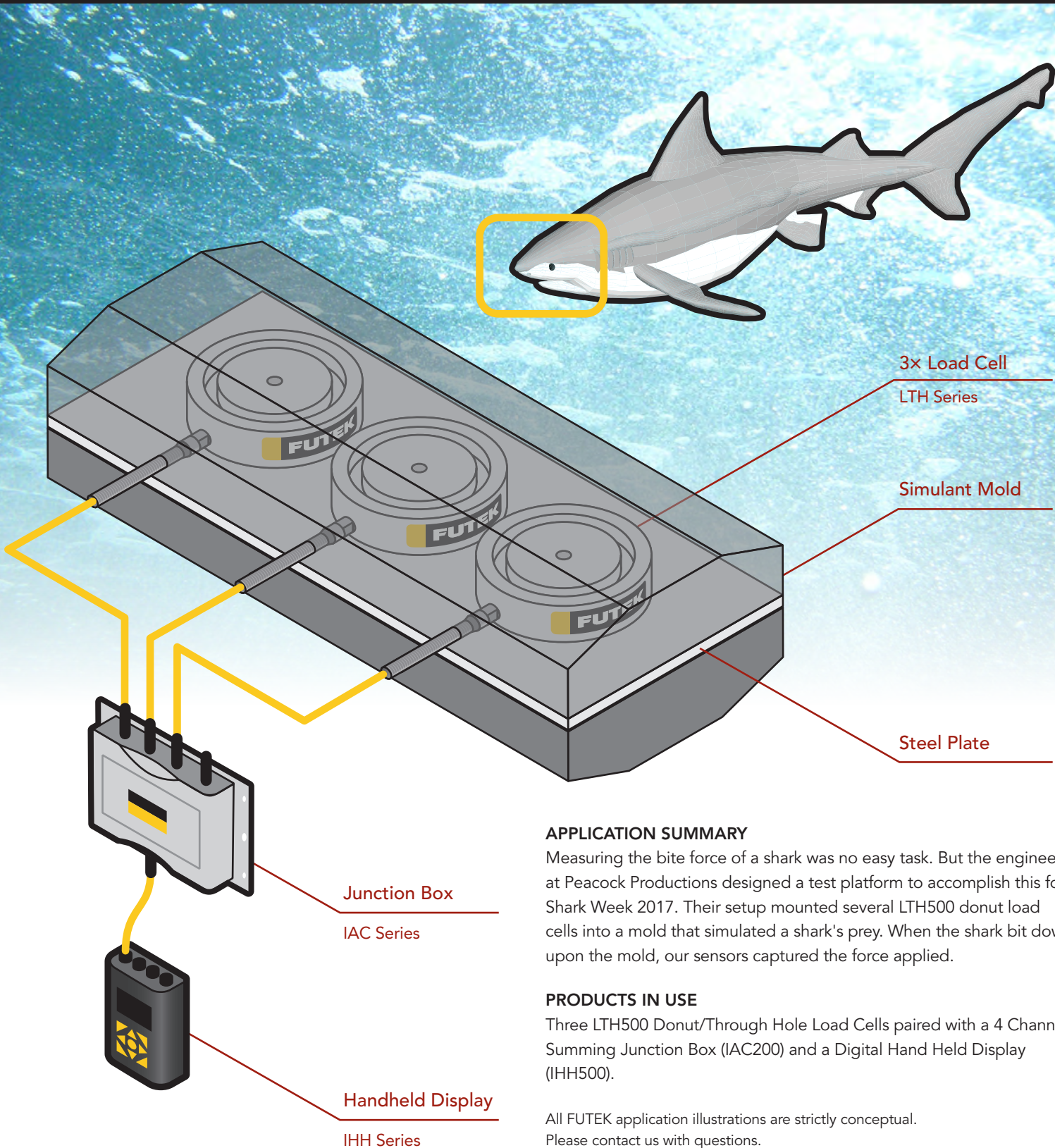
APPLICATION SUMMARY

Whether you are feeding a wire EDM machine, a wire stripper, or winding electric motor coils, precision wire tension is key to meet today's high performance standards. The key to precision wire tension control requires live monitoring of the wire tension. By utilizing a load cell in-line with the wire tensioner, a versatile wire tensioning system can be developed that can adapt to changing wire quality and conditions. Furthermore this adaptive system can maintain high coil winding quality and repeatability while maximizing process efficiency by preventing wire breakage.

PRODUCTS IN USE

1 In-Line Tension and Compression Load Cell (LCM Series) paired with Instrumentation (IAA Series or IDA100).

All FUTEK application illustrations are strictly conceptual. Please contact us with questions.



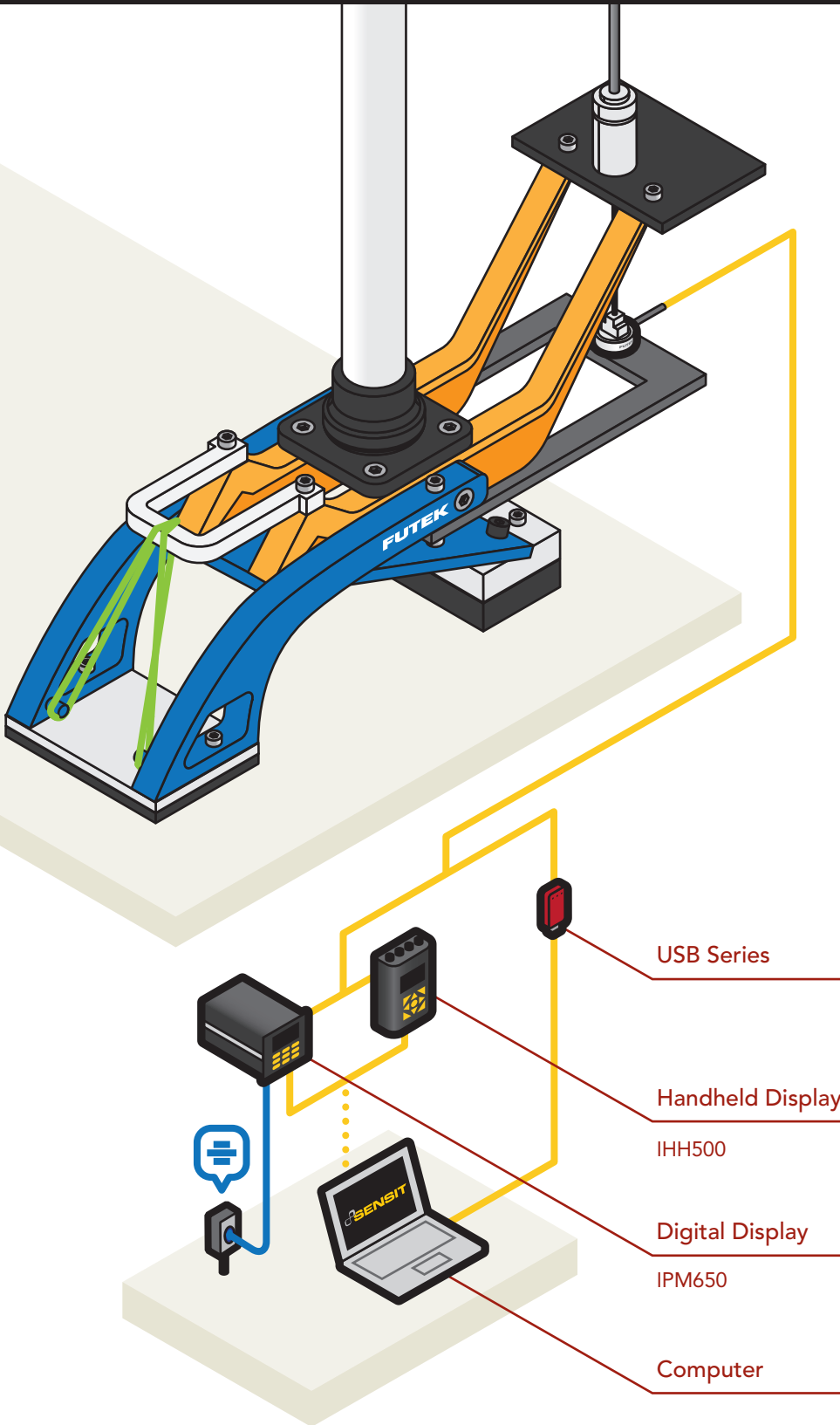
APPLICATION SUMMARY

Measuring the bite force of a shark was no easy task. But the engineers at Peacock Productions designed a test platform to accomplish this for Shark Week 2017. Their setup mounted several LTH500 donut load cells into a mold that simulated a shark's prey. When the shark bit down upon the mold, our sensors captured the force applied.

PRODUCTS IN USE

Three LTH500 Donut/Through Hole Load Cells paired with a 4 Channel Summing Junction Box (IAC200) and a Digital Hand Held Display (IHH500).

All FUTEK application illustrations are strictly conceptual. Please contact us with questions.



APPLICATION SUMMARY

For individuals who have lost part or all of a limb, rehabilitation is always a difficult process. For those who have undergone trans-tibial amputation, their prosthesis needs to mimic the tibia, ankle, and foot. FUTEK worked with Humotech in selecting a sensor for a trans-tibial prosthesis that could adapt to an individual's gait during rehabilitation. By mounting our LCM200 Miniature Threaded In-Line Load Cell in-line with a servo-driven cable system, Humotech was able to create a closed-loop system that adapts to the patient's gait for a speedier recovery and rehabilitation.

PRODUCTS IN USE

1 FUTEK LCM200 Miniature Threaded In-Line Load Cell paired with IDA100 Digitally Configurable Amplifier.

All FUTEK application illustrations are strictly conceptual. Please contact us with questions.