

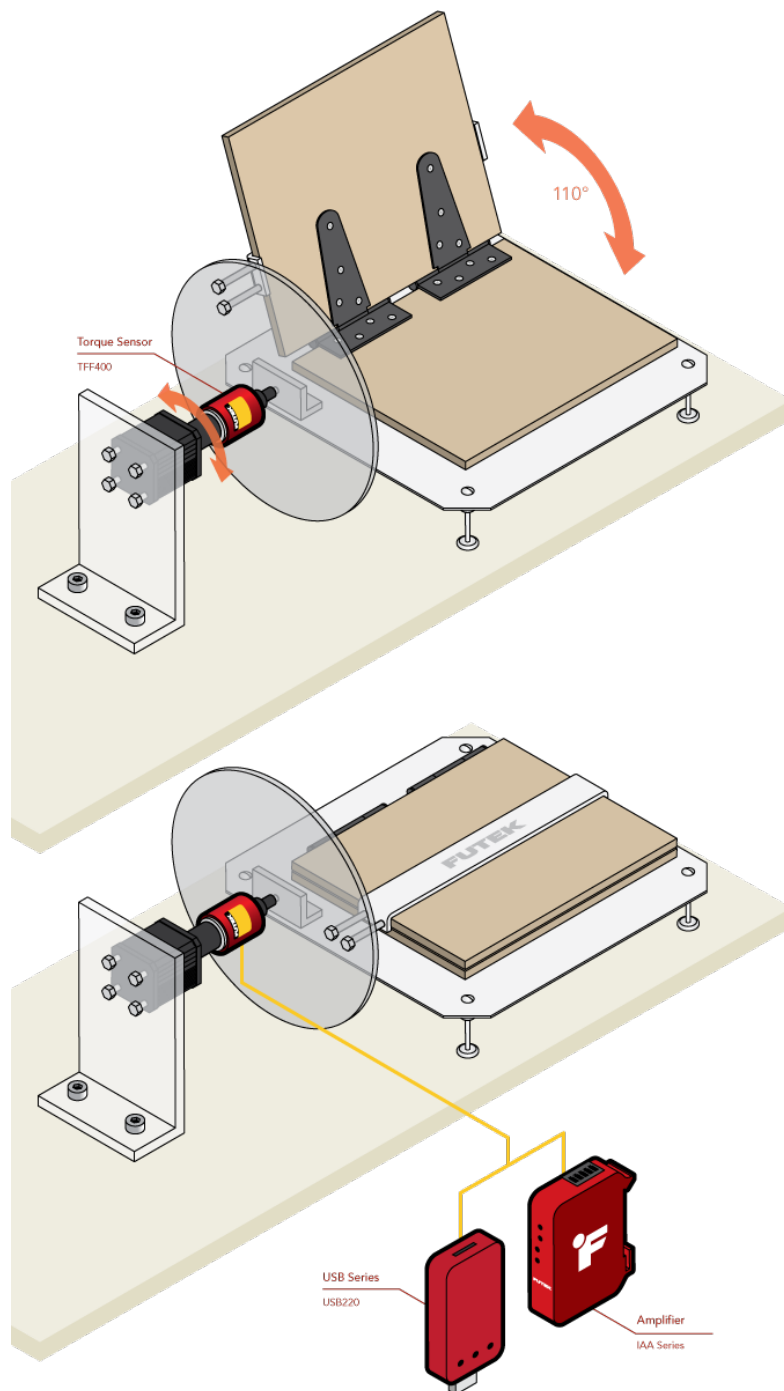


应用概述

扭力铰链、摩擦力铰链和位置铰链都是类似的，它允许两个部分在负载作用时相互旋转。当负载由于其高的扭转刚度而被移除时，铰链就会恢复到原来的位置。因为这一特性，它们被用于几乎所有物品，从橱柜、汽车手套箱到笔记本电脑和显示器支架。这种广泛的用途通常要求这些铰链的使用寿命超过产品的寿命。为了确保这一点，必须进行疲劳和循环测试，以验证集成到产品中的铰链的寿命。

使用产品

FUTEK 的 TFF400 静态扭矩传感器，搭配仪器 (USB220 采集模块，IAA 系列放大器)。为了更深入地分析铰链性能，可以使用一个内置编码器的旋转扭矩传感器 TRS605 和一个 USB520。



扭矩传感器

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使用说明

1. The TFF400 torque sensor is mounted in line with the motor driving the automated cycling system.
2. Although the TFF400 is a reaction torque sensor, if the overall rotation is less than 360 degrees, you avoid the risk of the cable winding around the sensor.
3. The TFF400 is then mounted to the hub of a wheel. The rotation of the wheel will allow the hinge that is to be tested to open and close.
4. The TFF400 will then record the amount of torque needed to open and close the hinge.
5. If the motor is set in brake mode, the torque sensor will be able to measure the torque spring resistance and torsional stiffness.
6. A TFF400 paired with a USB220 can output the results of testing to a PC for data capture and analysis
7. Additionally, a TRS605 paired with USB520 will allow for the logging of rotary angle data, enabling a study of torque versus hinge angle



TFF400
静态扭矩传感器



IAA 系列
应变式放大器



USB220
数据采集模块



TRS605
动态扭矩传感器



USB520
USB 采集模块