

Smartwatch Force Testing

Multi-Axis

Industry: CPG

Summary

Customer Challenge

Smartwatches offer users a blend of convenience and innovation. Interaction forces for the user must be precise as different types of tasks are performed such as pressing, scrolling, and swiping. A force test is needed during the development stage of smartwatches, verifying and validating its interaction design for users.

Interface Solution

Interface's 3AR Series Round 3-Axis Load Cell is adept at measuring and capturing forces by the user's fingers across multiple axes (Fx, Fy, and Fz). Engineers will be able to determine and change sensitivity settings based on force results. Results are fed to the BX8-AS BlueDAQ Series Data Acquisition System and to the connected laptop where it is displayed with included BlueDAQ software.

Results

Interface's 3-Axis load cell successfully measured and captured the three axes (Fx, Fy, and Fz) during pressing, scrolling, and swiping tests during the smartwatch development stage.

Materials

- 3AR Series Round 3-Axis Load Cell
- BX8-AS BlueDAQ Series Data Acquisition System with supplied BlueDAQ software
- Smartwatch undergoing force test
- Customer's computer or laptop

How It Works

1. The smartwatch is placed on top of the 3AR Series Round 3-Axis Load Cell. Different types of force tests are conducted such as pressing, swiping, and scrolling.
2. The 3AR Series Round 3-Axis Load Cell captures the interaction forces across three axes (Fx, Fy, and Fz).
3. Data is captured and recorded through the BX8-AS BlueDAQ Series Data Acquisition System using supplied BlueDAQ software. Results are displayed when connected to the customer's computer.

