

Treadmill Rehabilitation Interface Mini™

Industry: Medical + Healthcare

Summary

Customer Challenge

A medical company wants a force measurement system for their experimental rehabilitation treadmill for patients that have pelvic mobility difficulties. For example, patients who have had a stroke tend to have difficulty walking. They want to measure the forces applied on the pelvis when the patient is walking on the treadmill and catch any pelvic deviations.

Interface Solution

The rehabilitation treadmill has a special harness with two actuators on either side of the patient when in use. Interface suggests installing their Two WMC Sealed Stainless Steel Miniature Load Cells to the actuators, which will measure the forces applied on the pelvis of the patient. Force results can be measured using the SI-USB4 4-Channel USB Interface Module, which can also be graphed and logged on the customer's computer with supplied VS3 software.

Results

The medical company was able to catch different pelvic deviations in their experimental rehabilitation treadmill using Interface's force measurement system.

Materials

- Two WMC Sealed Stainless Steel Miniature Load Cells
- SI-USB4 4-Channel USB Interface Module with included VS3 Software
- Customer PC or Laptop

How It Works

1. Two WMC Sealed Stainless Steel Miniature Load Cells are installed into the actuators on either side of the treadmill's special harness.
2. When a patient starts to walk, the WMC Load Cells measure the lateral forces implemented by the patient when in movement.
3. Force measurement results are graphed and logged when connected to the SI-USB4 4-Channel USB Interface Module with supplied software, onto the customer's PC.

