

Canoe Paddle Force Testing

Multi-Axis

Industry: CPG

Summary

Customer Challenge

A sports technology company is looking to develop an advanced performance analysis system for sprint canoeing. To accurately measure paddle stroke efficiency, they need a force measurement system that can be embedded in the paddle shaft to capture force data in multiple directions.

Interface Solution

Interface's 6A80 6-Axis Load Cell can be installed in the canoe paddles shaft which can measure forces applied by the paddle in different directions. When an athlete paddles, researchers can see how different stroke techniques affected efficiency and propulsion. Data can be recorded with supplied BlueDAQ software using the BX8-AS BlueDAQ Series Data Acquisition System.

Results

Interface's 6A80 6-Axis Load Cell installed into the canoe paddle successfully gathered the force data in all directions in order to accurately measure paddle stroke efficiency.

Materials

- 6A80 6-Axis Load Cell
- BX8-AS BlueDAQ Series Data Acquisition System with BlueDAQ software
- Customer PC
- Canoe Paddle undergoing test

How It Works

1. The 6A80 6-Axis Load Cell can be installed in the canoe paddles shaft.
2. Professional canoe athletes perform tests with different intensities, speeds, power levels, and stroke techniques.
3. Different stroke styles were analyzed to determine which techniques produced the most efficient propulsion. This data was collected when connected to the BX8-AS BlueDAQ Series Data Acquisition System with BlueDAQ software and displayed on the customer's PC.

